WASTEWATER FACILITY PLAN
AMENDMENT NO. 1

West Jefferson Lake Sanitary Sewer Collection System

Le Sueur County, MN

Submitted by:
Bolton & Menk, Inc.
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BMI No. M15.111340

Minnesota Pollution Control Agency

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May 25,2016

Mr. Darrell Pettis 88 South Park
Avenue Le Center, MN 56057

RE: West Jefferson Lake Facility Plan
Comments -1 Project Number 280366

Dear Mr. Pettis:

The Minnesota Pollution Control Agency (MPCA) received the West Jefferson Lake (District) Facility Plan (Plan) on March 3, 2016. If you are requesting funding through the Clean Water Revolving Fund Loan Program (CWRF) or the Point Source Implementation Grant (PSIG) for fiscal year 2016, the MPCA will need to provide the preliminary approval of this Plan by June 30, 2016.

Please address the following concerns regarding the Plan in order to facilitate continued review of your project.

1) A more in-depth evaluation of treatment options should be considered in the facility plan. The only option that was fully evaluated was the forcemain to Cleveland. A discussion of all the treatment alternatives was completed, but a cost effective comparison of the alternatives needs to be finalized. This would include a detailed breakdown of present worth of all capital costs, annual Operation and Maintenance (O&M) costs, and replacement and salvage. Also a comparison of environmental impacts from each option should be evaluated.

   - A very detailed investigation of the options considered has been recently completed by Wenck Associates, Inc. We have now included the completed feasibility studies in the Appendix of this report for additional details related to the individual treatment and cluster system options discussed in this report.

2) Please submit and add the MPCA's design flow and loading worksheet to the Plan. This is found at the following link: https://www.pca.state.mn.us/sites/default/files/wg-wwtp5-20.pdf.

   - The Design Flow and Loading Worksheet has been completed and attached in the Appendix of this report.

3) According to the facility plan the public hearing was going to take place in May 2016. Has this meeting taken place yet? If so was the following points discussed?

   a) Various treatment alternatives where discussed. YES

   b) The location of the project site. YES

   c) Reasoning for choosing the selected treatment method. YES

   d) Estimated sewer service charges. YES

   - The formal Public Hearing was held on May 17th at 10:00 am at the Le Sueur County Board Meeting. The PowerPoint Presentation from the Public Hearing has been included in the Appendix.
   - The local group of homeowners held an Open House Community Meeting on May 10th, 2016. The Summary from that community meeting has been also included in the Appendix.

4) A summary of all comments received at the public hearing need to be submitted along with any action taken to resolve any of the comments.

   - The public comments from the West Jefferson Facility Plan Public Hearing are included in the Appendix of this report.

5) A copy of the formal resolution adopting the facility plan is required to be submitted.

- The approved resolution from the Le Sueur County Board of Commissioners is included in the Appendix.

6) A letter from the city of Cleveland is required stating that they will accept West Jefferson Lake's wastewater and signed by their representative.

- The City of Cleveland adopted Resolution #07-2016 – Adopting Position on West Jefferson Lake Sanitary Sewer Request. The resolution approves accepting no more than 140 properties within the West Lake Jefferson area and included in the Appendix of this report.

7) Please submit a draft inter-municipal agreement with the city of Cleveland. A final agreement must be submitted before plans and specifications will be approved.

- A draft of the Joint Powers Agreement for Wastewater Treatment, Maintenance, and Administration between Le Sueur County and the City of Cleveland in the Appendix of this report.

8) The city of Cleveland's National Pollutant Discharge Elimination System permitted flows should be included in the facility plan along with a flow evaluation of the city's wastewater over the past number of years to determine if they have flow capacity for the extension.

- We have included the NPDES Permit # MNG580009 in the Appendix of this report.
- The City of Cleveland reviewed the capacity of their WWTPonds and those findings are outlined in the Memorandum dated December 2, 2015 and included in the Appendix of this report.

9) The end point of the West Jefferson Lakes proposed force main ends in a manhole up gradient of residential homes. As you stated this wastewater will be highly septic from the four mile journey. It is highly recommended that this forcemain either connect directly into the city of Cleveland's forcemain to prevent major odor issues through town and at the city lift station. Other projects similar to this has had major odor issues with residential homes on the blocks the gravity line would carry this septic waste.

- The trunk forcemain route has been modified to completely bypass the city of Cleveland's collection system and discharge directly into the existing wastewater treatment ponds. Please see the revised figures 3.3 and 3.4.

10) The State Environmental Review Process mailing list needs to be submitted. This can be found at the following link: https://www.pca.state.mn.us/sites/default/files(wg-wwtp2-16.doc.

- A completed State Environmental Review Process (SERP) Mailing List Form is attached.

'11) If CWRF will be used a Section 106 Preservation Conditions review will need to be completed before an environmental review can be completed. Please see the following website for more information: https:Ilwww.pca.state.mn.us/water /wastewate r -a nd-stormwate r -fi nan cia1assistancell573d21adge157.

- The Environmental Review process is currently underway. The review being done is following the MPCA guidance on its website for CWRF projects including the Section 106 review by MnHPO. A copy of the clearance letter from MnHPO will be submitted to your attention when it is received.

12) What is the proposed monthly sewer service cost for the community per equivalent dwelling units? On table 4.2 it has a cost of $64. Does this include construction costs, O&M costs, and treatment costs from Cleveland?

- The City of Cleveland is currently conducting a Sanitary Sewer Service Rate Study that will provide them clarity with what monthly sewer costs they will be charging the West Jefferson Sewer District customers. Table 4.2 is the Operation and Maintenance and an estimated treatment costs from Cleveland. This has not been finalized, but gives a realistic representation of what monthly service may be. This does not include construction costs.

These technical concerns will need to be addressed before preliminary approval of the Plan may be granted.

If you have any questions, feel free to contact me at 507-206-2603.

Corey J Hower
Engineer
Municipal Wastewater
Section Municipal Division

CJH:jw

cc: Jason L. Femrite, P.E., Bolton & Menk, Inc., Mankato
Aaron Wills, Southeast Wastewater Initiative, Northfield

Certification

Wastewater Facility Plan
Amendment No. 1

for

West Jefferson Lake Sanitary
Collection System

Le Sueur County, MN

BMI Project No: M15.111340

June 16, 2016

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

By: _____

Jason L. Femrite, P.E.
License No. 43869

Date: 6-16-16

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Figures

Tables

Appendix

I. INTRODUCTION

This report is an amendment to the Wastewater Facility Plan for Le Sueur County, originally dated March 3rd, 2016. The modifications made to this report relate to the route of the proposed sanitary forcemain between West Jefferson Lake and the City of Cleveland Wastewater Treatment Ponds, as discussed in Section III.C.

Modifications made with this amendment include the re-routing of trunk forcemain near West Jefferson Lake and the construction of sanitary forcemain through the City of Cleveland, in comparison to connecting the new sanitary forcemain to the City's existing gravity collection system as discussed in the original draft of this report.

This amendment of the West Jefferson Lake Facility Plan also includes revisions made based on the "Facility Plan Comments – 1" letter from MPCA, dated May 25, 2016. Please refer to the responses of each comment for a summary of modifications to this report.

A. General

West Jefferson Lake is located in southern Le Sueur County in south central Minnesota. In late 2015, a private group of citizens approached the City of Cleveland to determine whether the City would consider providing treatment of wastewater from the residences and surrounding the lake. Officials for the City of Cleveland indicated that they would consider accepting wastewater from the West Jefferson Lake area. Bolton & Menk, Inc. was approached to assist in developing a preliminary plan for providing wastewater collection for the West Jefferson Lake area. The primary focus of this study is to develop a plan which provides wastewater collection for the areas surrounding West Jefferson Lake, mitigating the environmental impact of current development.

B. Plan Scope

A summary of the scope of this plan is as follows:

1. Determine extent of potential service area.
2. Develop alternatives for providing wastewater collection to service area.
3. Develop cost estimate for each alternative.
4. Develop plan for implementation of the chosen alternative.

C. Project History

Beginning in 2011, Le Sueur County initiated a sewer treatment system inventory for the German Jefferson Subordinate Service District area, in an effort to assess compliance issues within the area. During this time, the County hired an independent engineering firm (Wenck

Associates, Inc.) to inspect existing septic systems throughout the project area.

The following findings of this study were presented in reports from Wenck (Maple Lane Feasibility Study, dated March 2013, WENCK File #2660-01; Tomahawk – Evergreen Feasibility Study, dated March 31, 2015, WENCK File #2660-03; and West Lake Drive Feasibility Study, Dated March 10, 2015, WENCK File #2660-03) as it relates to existing system compliance in the West Jefferson Lake area. Copies of these reports are included in the Appendix. The existing compliance data in the proposed project area is as follows:

- Maple Lane (south side of lake) – 55% non-compliant systems
- Tomahawk/Evergreen (north side of lake) – 66% non-compliant systems
- West Lake Drive (west side of lake) – 52% non-compliant systems

Following the completion of the study, Le Sueur County passed a resolution which allowed for a five-year window (deadline December 2017) for property owners with non-compliant systems to bring private treatment systems into compliance.

II. DESIGN CONSIDERATIONS AND PARAMETERS

A. General

Wastewater collection and treatment systems are designed based on primarily two sets of parameters. One is the volume of wastewater to be conveyed and treated on a daily basis, commonly referred to as wastewater flow. The second set of parameters is the strength of the wastewater, which is measured in terms of organic matter and nutrients. This set of parameters is typically referred to as wastewater loadings. Wastewater loadings are utilized for determining the treatment requirements for the wastewater. In order to develop projections for these parameters, population and land use projections for the service area must be made. This section will provide an analysis for population, wastewater flow, and wastewater loadings generated in the service area over the duration of the planning period.

B. Planning Period

Typical planning periods for wastewater facilities is 50 years for collection systems and 20 years for treatment facilities. For the proposed service district, projections will be developed for the development of the service area within 20 years.

C. Planning Area

The proposed service area for West Jefferson Lake was delineated based on input provided by residents of the area, the City of Cleveland, and Le Sueur County. The service area was limited to localized developed areas on the north, south and west side of West Jefferson Lake. **Figure 2.1** provides a vicinity map of the area, with the proposed service area identified.

D. Service Area Development and Population Projections

The proposed project area is within the German/Jefferson Lakes Subordinate Service District. A private group of citizens in the West Jefferson Lake area are currently in the process of forming a "checkerboard" service sub-district. The proposed sub-district is planned to include any properties within the West Jefferson project area, whose owners are willing to sign up for the proposed improvements.

The proposed checkerboard service district will be primarily focused on providing service to existing development. No significant areas for future development are included in this service area. Development of the area includes the following land uses:

- Existing residential properties
- Properties which are currently developable / buildable

Currently, there are no commercial establishments within the proposed service area.

After the new checkerboard sub-district has formed, Le Sueur County and the City of Cleveland will enter into an agreement which defines the number of Sewer Availability Charge (SAC) units allocated to the sub-district. For the purposes of planning and design, one SAC is equivalent to one Equivalent Domestic Unit (EDU). Each EDU is defined as a unit which discharges wastewater equivalent to a typical domestic/residential household.

Table 2.1 provides an updated summary of the estimated SAC/EDU allocation to the proposed sub-district based on the proposed agreement between Le Sueur County and the City of Cleveland. For the purposes of this report, the data presented below represents the maximum number of properties within the proposed project area.

TABLE 2.1
Summary of SAC/EDU Allocation

	Existing	Future	Total
Residential – Full Time & Seasonal	**130**	**10**	**140**

WEST JEFFERSON LAKE

464TH ST.

281ST AVE

TOMAHAWK PT.

EVERGREEN LN

WEST LAKE DR.

HUB DR.

MAPLE LN

470TH ST

LEGEND

- PROPOSED SERVICE AREA
- PARCELS
- IMPACT ZONE

0 300 600 FEET

BOLTON & MENK Engineers & Surveyors

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LESUEUR COUNTY, MINNESOTA
WEST JEFFERSON SANITARY COLLECTION SYSTEM
PROPOSED SERVICE AREA
FIGURE 2.1
REVISED JUNE, 2016

Future allocation of SAC/EDU's includes single lake access lots or vacant/platted lots scattered throughout the service area. Development potential for these lots is unknown, as some lots may never be developed, and some will be developed outside of the planning period. For design purposes, the collection system will be designed to collect and transfer wastewater flows from the existing development. Due to the relatively small number of future allocated EDUs in the project area, it is not anticipated to significantly affect the sizing of the collection system.

For the purposes of the agreement for treatment with the City of Cleveland, the total SAC/EDU allocation will be utilized as the basis for the agreement.

E. Wastewater Flows and Loadings

Wastewater design flows and loadings are developed based on the following criteria:

- Equivalent population for the service area is based on 2.4 people per SAC/EDU.
- Average flow is based on 100 gallons/person based on criteria established in "Recommended Standards for Wastewater Facilities".
- Peak hourly flow is based on a peaking factor of 4.0 based on criteria established in "Recommended Standards for Wastewater Facilities".
- Carbonaceous Biochemical Oxygen Demand (CBOD5) estimated based on 0.17 pounds per capita per day.
- Total Suspended Solids (TSS) estimated based on 0.20 pounds per capita per day.
- Total Kjeldahl Nitrogen (TKN) estimated based on 0.05 pounds per capita per day.
- Phosphorous (P) based on 0.008 pounds per capita per day.

TABLE 2.2
Summary of Design Flows and Loadings

	Population	Average Flow (gpd)	Peak Hourly Flow (gpd)	CBOD (lb/d)	TSS (lb/d)	TKN (lb/d)	P (lb/d)
Existing	**312**	**31,200**	**124,800**	**53**	**62**	**16**	**2.5**
Future Allocated	**24**	**2,400**	**9,600**	**4**	**5**	**1**	**0.2**
Total	**336**	**33,600**	**134,400**	**57**	**67**	**17**	**2.7**

III. WASTEWATER SYSTEM ALTERNATIVES

A. General

The following provides alternatives for wastewater treatment facilities and wastewater collection for the West Jefferson area.

B. Wastewater Treatment Systems

1. Wastewater Treatment System Alternatives

A number of wastewater treatment alternatives are considered for the study area. These methods include utilization of on-site wastewater treatment systems, construction of localized cluster systems, and regionalization with the City of Cleveland. These alternatives are discussed in more detail below.

2. On-Site Treatment Systems

Existing residences in the service area are served by on- site wastewater treatment systems. These systems have varying operational capacities due to age of the systems, installation and siting issues, and system maintenance.

Siting issues regarding on-site treatment systems fall into three general categories:

1. Soil suitability and percolation rates;
2. Groundwater level;
3. Setback requirements.

The soils in the service areas are primarily poorly drained loam and clay soils. In addition, groundwater levels are seasonally high throughout much of the service area.

In areas where a separation of three feet between the bottom of the drainfield system and the seasonal high water table (determined by the presence of mottled soil), cannot be achieved by the natural soil conditions, then a mound system is required. A standard mound system requires a minimum of one foot of suitable soil between the natural ground surface and mottled soil or bedrock.

While mound systems do provide adequate treatment of wastewater, they can be problematic due to the sizing requirements and aesthetic concerns. The average size mound system to serve a three or four bedroom home is approximately 70 to 80 feet long, 45 to 55 feet wide, and 3 to 4 feet high in the center. The average size mound system to serve a two bedroom seasonal home is approximately 40 feet by 40 feet and 3 to 4 feet high in the center. The site for a mound must be an area which has not been disturbed or compacted. In addition, there are required setback distances from structures, property lines, wells, and the lakeshore. In addition, the majority of the lots around the lake areas

do not have adequate space to construct a mound system conforming to current Minnesota regulations.

With the appropriate maintenance, a properly designed and installed system can last approximately 20 to 25 years. After that, the drainfields tend to become overloaded as the biomat becomes thick and impedes the ability of water to pass through it. Typically, due to lack of maintenance and less than ideal site conditions, the average effective life cycle of a drainfield is 10-15 years. When a system has failed, it is necessary to find a new location to construct a new drainfield.

Many of the existing systems have failed, and are no longer providing adequate service to the residents. Due to siting issues of new systems as well as the cost of relatively frequent replacement costs, other options appear to provide a more economical and environmentally friendly long term solution for the residents of the service area.

For a detailed discussion of the construction, O&M, and replacement costs as well as the environmental impacts of this option, please refer to the attached Wenck feasibility studies for the three neighborhoods in the Appendix.

3. Localized Cluster Systems

A cluster sewage treatment system refers to a system which treats wastewater from a group of properties within a localized area. As it relates to the proposed project area, the implementation of cluster systems would include the construction of mid-sized to large mound system located in the vicinity of the respective neighborhood served by the system. In this case, three individual cluster systems could be constructed to serve the West Lake Drive, Tomahawk/Evergreen, and Maple Lane neighborhoods.

For each neighborhood served, sanitary collection systems would need to be constructed to convey wastewater from individual properties to the localized cluster system. In addition, land would need to be acquired to house the new cluster system.

As indicated in the attached Wenck Feasibility Studies, potential cluster system locations have been investigated from a preliminary standpoint at locations within the existing farmland surrounding West Lake Jefferson.

As described by representatives of the proposed West Jefferson Sub-district, most landowners at these and other locations in close proximity to the respective areas analyzed have not been responsive to requests for selling the land. Furthermore, the only landowners which have expressed interest in discussing property transfer are located approximately ½ to ¾ miles north-northeast of West Jefferson Lake.

According to the recent studies implemented by Wenck as part of the German-Jefferson neighborhood feasibility studies (previously referenced in Section I.C.). The estimated costs of constructing localized cluster systems varies between $39,000 and $57,400 per connection, depending on the localized area served and the number of properties served.. Please note that these costs do not include the cost of land acquisition.

Assuming that land could be acquired, an estimated $2,000 to $3,000 would be added to the above described costs.

Due to the relatively high construction costs in comparison to other alternatives analyzed as part of this report, the use of localized cluster systems was ruled out as a treatment option.

For a detailed discussion of the construction, O&M, and replacement costs as well as the environmental impacts of this option, please refer to the attached Wenck feasibility studies for the three neighborhoods in the Appendix.

4. Regionalization with the City of Cleveland

The City of Cleveland operates wastewater treatment ponds to treat wastewater for the community's residential, commercial, and industrial users. Connection to the City's collection system would require a forcemain to be routed approximately four miles north from the service area to the City of Cleveland where it will connect to an existing gravity system. Prior to discharge to the wastewater treatment ponds, flow from the city is conveyed through an existing forcemain to the treatment pond site. Pumping wastewater to the Cleveland facility has many advantages.

The cost of constructing new wastewater treatment facilities for the study area would not be required, as our initial review of the capacity of the existing treatment ponds revealed that the existing system has adequate capacity to handle the additional inflow and loadings anticipated from the West Jefferson area. In addition, the extension of a new forcemain from West Lake Jefferson, which discharges directly into the existing treatment ponds will illuminate the potential impacts of septic wastewater on the existing Cleveland wastewater collection system piping and structures.

Operation and maintenance of the treatment facility would be the responsibility of the City of Cleveland; however, users in the West Jefferson Lake service areas would be subject to regulations, connection fees, and treatment charges imposed by the City of Cleveland. The users would be responsible for providing the maintenance and operation of the collection system, and forcemains required for wastewater collection and transmission.

Additional details associated with the implementation of this option, including the collection and conveyance system, costs and environmental impacts are described in more detail in the following sections.

C. Wastewater Collection System

1. Collection System Alternatives

There are two primary methods considered for collection and transport of wastewater for the West Jefferson Lake area. The first alternative includes a low pressure sanitary sewer system in the West Jefferson area. A second alternative was also analyzed, which included incorporating segments of gravity sanitary sewer where the existing topography allows.

These methods are discussed in more detail in the following sections.

2. Gravity Collection Systems

A gravity sanitary sewer system utilizes gravity to transport wastewater to a desired location. A four-inch gravity sanitary sewer service line would be constructed from each home to common gravity sanitary sewer main lines. These sewer mains would be constructed primarily within the right-of-ways of existing roadways to depths ranging from approximately eight feet to twenty-five feet deep.

Due to the existing topography of the area, the majority of the proposed project area would require the installation of low pressure sanitary sewer. There are, however segments of the service area where the existing topography favors the installation of gravity sanitary sewer. As such, the project area could be serviced by a combination of gravity and low pressure sanitary. In an effort to reduce the total amount of surface restoration required under this alternative, the gravity sewer could be installed using horizontal boring. It should be noted that in using this method, gravity sewer main must be installed at a minimum grade of 2%. Although this would be possible, this restriction minimizes the serviceable length of right-of-way within the project area. **Figure 3.1** provides an overview of the combination gravity/pressure collection system alternative.

As illustrated in Figure 3.1, the downstream end of each gravity segment will require the installation of a “minor” lift station (2 total). For the purposes of the study, the minor lift stations would be submersible type lift stations in a pre-cast manhole type structure, with two submersible pumps, retrievable from ground level. Each pump would be sized to pump 100 percent of the peak flow to that lift station.

WEST JEFFERSON LAKE

POTENTIAL LIFT STATION LOCATION

281ST AVE

1092' 8" GRAV SAN

BASE PROJECT BOUNDARY

CEDAR TRAIL CT

RIDGE CIR

814' 3" FCM

325' 4" FCM

566' 4" FCM

EVERGREEN LN

450' 8" GRAV SAN

EVERGREEN LN

1110' 4" FCM

3369' 3" FCM

1122' 8" GRAV SAN

980' 4" FCM

854' 3" FCM

CEDAR TR

213' 3" FCM

354' 3" FCM

388' 3" FCM

TOMAHAWK POINT

605' 3" FCM

INTERMITTENT LIFT STATION LOCATION

897' 4" FCM

WEST LAKE DR

1857' 3" FCM

741' 4" FCM

699' 3" FCM

694' 4" FCM

HUB DR

WEST LAKE DR

1001' 3" FCM

MELANIE DR

KIMBERLY RD

302' 4" FCM

192' 3" FCM

600' 8" GRAV SAN

MAPLE DR

INTERMITTENT LIFT STATION LOCATION

MAPLE LN

470TH AVE

LEGEND

- FORCEMAIN PIPE
- GRAVITY SANITARY PIPE
- LIFT STATION
- PROPOSED SERVICE AREA

0 250 500 FEET

BOLTON & MENK Engineers & Surveyors

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WEST JEFFERSON LAKE SANITARY COLLECTION SYSTEM

GRAVITY/PRESSURE COLLECTION SYSTEM ALTERNATIVE

FIGURE 3.1

REVISED APRIL, 2016

Each lift station would have a backup power generator, and would have odor control equipment to manage any odors released at the lift station. In addition, this alternative will include the abandonment of all privately owned septic tanks and holding tanks.

Due to distance and topography, gravity sanitary is unable to service the project area as the "trunk" mainline between West Jefferson and the City of Cleveland. The "trunk" forcemain will be discussed in more detail in the following section.

The primary goal of incorporating localized segments of gravity sanitary in our analysis was to minimize the total number of grinder pump systems within the project area, which may in turn, reduce the overall cost of the project. Due to the need for multiple "minor" lift stations at the end of each gravity segment, the comparative cost between this system and a 100% pressurized system are relatively close. In addition, there is concern over the placed location of the minor lift stations, in relation to the existing properties in the project area. Due to the relatively narrow right-of-way of existing streets, construction easements would need to be acquired in order to install the lift stations.

For these reasons, the inclusion of localized segments of gravity sanitary sewer into the sanitary collection system does not appear to be a desirable option for West Jefferson Lake.

3. Low Pressure Sanitary Sewer Collection System

A pressurized sanitary sewer collection system transports wastewater in a pressurized forcemain to a desired location. This option proposes a grinder pump station at each establishment within the study area which will pump to a common three-inch to four-inch forcemain. This common forcemain would be constructed primarily within the right-of-ways of existing roadways at a depth of approximately eight feet. The forcemain is typically installed using horizontal boring technology to minimize the amount of surface disturbance during the construction period.

The grinder stations would consist of a two-foot diameter grinder tank buried outside the home with a single submersible grinder pump. A control box would be mounted on the building, and an alarm light would be located in or outside of the building. The pump could be removed on a guiderail system without entering the structure. **Figure 3.2** provides an overview of the proposed low pressure sanitary sewer collection system.

It should be noted that this alternative would not require the installation of intermediate, "minor" lift stations, as would be required utilizing localized segments of gravity sewer main within the service area.

WEST JEFFERSON LAKE SANITARY COLLECTION SYSTEM

PRESSURE COLLECTION SYSTEM ALTERNATIVE

FIGURE 3.2

REVISED APRIL, 2016

Construction of the new sanitary sewer system would also involve abandoning all of the privately owned septic tanks and holding tanks.

4. Trunk Forcemain

As discussed previously, due to a lack of elevation difference between West Jefferson Lake and the City of Cleveland, a new 4-inch sanitary forcemain is proposed. The new forcemain will enter the City of Cleveland within 2nd Street/County Road 104. The new forcemain would then be directionally drilled within the 2nd Street Right-of-Way up to Broadway Street. After crossing Highway 99, the new forcemain would installed parallel to the existing forcemain and would discharge directly into the existing wastewater treatment ponds, thus bypassing the City of Cleveland's sanitary collection system in its entirety.

An alternate route for the proposed sanitary forcemain was also considered. In this case the forcemain would enter the City of Cleveland within the 10th Street/County Road 15 Right-of-Way and continue north to the intersection with Broadway Street. The forcemain would then be routed to the west, within Broadway Street and continue on to the wastewater treatment ponds as previously described. Although this alternative route would require slightly less forcemain between West Jefferson and Cleveland, additional surface restoration work would be required within the City. In addition, the route of the trunk line near West Jefferson Lake would not allow properties along the north shore of the lake (464th Ave) to easily connect to the trunk line. As such, the current plan for routing the proposed trunk forcemain between West Jefferson Lake and the City of Cleveland utilizes the "West Truck Forcemain Route" as illustrated in the figures noted below.

Figure 3.3 illustrates both trunk forcemain route alternatives. As previously described, minor upgrades to the City of Cleveland's sanitary system would be required as a result of connecting with West Jefferson Lake. **Figure 3.4** provides a summary of the associated work and shows the forcemain routes through the City of Cleveland for both alternatives.

SAVIDGE LAKE

CITY OF CLEVELAND WWTPONDS

DOG LAKE

INSTALL NEW 4" FORCEMAIN PARALLEL TO EXISTING FORCEMAIN

TRUNK FCM ROUTE

EXIST LIFT STATION

WEST JEFFERSON

CITY OF CLEVELAND

POTENTIAL LIFT STATION LOCATION

LAKE HENRY

SCOTCH LAKE

LESUEUR 104 COUNTY

LESUEUR 105 COUNTY

LESUEUR 18 COUNTY

LESUEUR 15 COUNTY

MINNESOTA 99

LEGEND

- PROPOSED SERVICE AREA
- PARCELS
- LIFT STATION
- PROPOSED FORCEMAIN
- EXISTING FORCEMAIN
- IMPACT ZONE

BOLTON & MENK Engineers & Surveyors

0 1000 2000 FEET

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LESUEUR COUNTY, MINNESOTA
WEST JEFFERSON SANITARY COLLECTION SYSTEM
TRUNK FORCEMAIN ROUTE
EXHIBIT 3.3
REVISED JUNE, 2016

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LESUEUR COUNTY, MINNESOTA
WEST JEFFERSON SANITARY COLLECTION SYSTEM
CITY OF CLEVELAND SANITARY SEWER
FIGURE 3.4
REVISED JUNE, 2016

D. Wastewater System Alternatives Summary

Based on discussions with service area homeowner representatives and the findings of the recent feasibility studies for the German Jefferson Subordinate Service District, there appears to be significant issues with the viability of the existing wastewater treatment systems in the designated service areas. Primary issues fall into two categories - economic and environmental. From an economic point of view, properties with failing or non-conforming treatment systems are difficult to obtain financing for, and thus have potentially diminished real estate value. From an environmental view, failing systems may pose potential health risks, and also provide additional pollutant load (including nitrogen and phosphorous) to the lakes.

Connection to the City of Cleveland is expected to have the most positive environmental impact to the service area, given that implementation will include the removal of up to 140 septic tanks and treatment systems, many of which being non-compliant and contributing to the pollutant loading of the lake.

Based on these issues and the difficulty with siting of individual and cluster systems noted in this section and provided in the attached feasibility studies, the alternative which will be considered is the construction of a wastewater pressure sewer collection system with treatment provided by the City of Cleveland wastewater treatment ponds. Cost estimates for the two collection system alternative are presented in Section 5 of this report.

IV. COST ESTIMATES

A. General

The estimated costs presented in this section for each of the two wastewater collection system alternatives will include construction costs and operation, maintenance and replacement (OM & R) costs.

B. Project Phasing

With collection system projects, it is common that not all property owners will take advantage of the wastewater collection and treatment system at the same time. In order to provide economical service to the entire service area, the main collection lines will be constructed under Phase I of this project. Service connections for individual properties may be added at a later date as needed. The cost estimates have been developed with the following options for participation in the system under Phase I.

A. 100 percent participation of all existing properties (140 Connections).

B. 70 percent participation of all existing properties (100 Connections).

C. 50 percent participation of all existing properties. (72 Connections)

Later phases may be implemented to provide connections to future properties, or connections may be made later on an as-needed basis.

C. Estimated Construction Costs

Preliminary construction cost estimates presented herein are based on January 2015 construction costs. Various material and equipment manufacturers and suppliers were contacted for information affecting cost estimates. Published and unpublished data on costs for similar construction projects were also utilized.

Increases in construction costs due to inflation are not taken into account. The cost estimates presented here are intended to be used as a guideline in the decision making process. Once preparation of final drawings and specifications is underway, a more refined cost estimate may be developed.

Table 4.1 provides a summary of the estimated cost for the pressure sewer collection system alternative and the gravity/pressure collection system alternative. Each alternative includes costs based on level of participation. Options A, B and C for each alternative, reflect the participation levels noted in paragraph 4.2 above. For each alternative, the main line cost includes construction of the primary trunk lines for transferring wastewater from the service area to the City of Cleveland system as well as costs of main lines within the road right-of-way throughout the service area. Each alternative includes the cost of installing the connection to the City, and for providing a meter station for monitoring of wastewater flows and loads. Service line costs include the cost of providing the service from the main line to the household or facility connection. Service line costs would only be implemented for the property owners participating in the system.

TABLE 4.1
Estimated Construction Costs

	Low Pressure Collection System			Gravity/Pressure Collection System		
	Option A	Option B	Option C	Option A	Option B	Option C
No. of Connections	140	100	72	140	100	72
Main Line	$956,000	$956,000	$956,000	$1,122,000	$1,122,000	$1,122,000
Lift/Metering Station	$150,000	$150,000	$150,000	$450,000	$450,000	$450,000
Services & Site Work	$2,470,000	$1,795,000	$1,315,000	$2,070,000	$1,549,000	$1,200,000
Subtotal	$3,576,000	$2,901,000	$2,421,000	$3,642,000	$3,121,000	$2,772,000
Contingencies (10%)	$355,000	$287,000	$239,000	$361,000	$309,000	$274,000
Engr., Legal, Admin., Fees	$564,000	$505,000	$451,000	$614,000	$555,000	$501,000
Total Project Cost	$4,495,000	$3,693,000	$3,111,000	$4,617,000	$3,985,000	$3,547,000
Total Cost per Connection	$32,107	$36,930	$43,208	$32,978	$39,850	$49,263

D. Estimated Operation and Maintenance Costs

The operations, maintenance and repair (OM & R) costs are presented in Table 4.2 for the two collections system. OM&R costs include treatment, administrative and operations costs, as well as replacement costs for the each collection system. Treatment costs were calculated based on 2016 city of Cleveland charges of $28 per month for "out-of-town" connections of the West Jefferson Lake collection to the City of Cleveland, and $0.00385/gallon of wastewater processed. Treatment charges are for each of the options and are based on average flows on an annual basis. Annual flows were discounted 25 percent on seasonal users. For the purposes of this report, it was assumed that 50% of properties within the service area are seasonal users. Charges may vary from those shown due to the high proportion of seasonal residences and system alterations made during final design.

TABLE 4.2
Operation, Maintenance and Replacement Costs

	Low Pressure Collection System			Gravity/Pressure Collection System		
	Option A	Option B	Option C	Option A	Option B	Option C
Treatment	$42,388	$30,373	$21,963	$42,388	$30,373	$21,963
Collection System Operations	$24,500	$17,500	$12,600	$18,000	$13,000	$10,000
Lift Station Operations	$10,000	$10,000	$10,000	$20,000	$20,000	$20,000
Gopher State One-Call	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
Billings and Administration	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000
Replacement Costs	$14,000	$10,000	$8,000	$13,000	$10,000	$8,000
Total Annual Costs	$107,888	$84,873	$69,563	$110,388	$90,373	$76,963
Monthly Cost per EDU	$64	$71	$81	$66	$75	$89

V. RECOMMENDATIONS AND IMPLEMENTATION

A. General

Previous sections of this report evaluated two alternatives for the West Jefferson Lake wastewater system. The wastewater system alternatives were considered in terms of cost, environmental, and operational considerations. This section describes the recommended alternative and discusses implementation of the alternative.

B. Recommended Wastewater System Alternative

The recommended wastewater system alternative is as follows:

- Construct a low pressure wastewater collection system around West Jefferson Lake
- Transport wastewater to the City of Cleveland (west connection point) for treatment

C. Project Funding

Costs associated with construction and operation and maintenance of a wastewater system for the West Jefferson Lake service area could be recovered in a number of different ways.

Construction costs can be recovered through assessments, or through monthly charges to retire debt incurred to fund the project.

In order to implement the recommended wastewater treatment system, some form of financial assistance program or method of financing the improvements will be necessary. Project finance can be addressed either through bonding or use of the State revolving loan fund. The revolving loan program was created under the State Revolving Fund (SRF) provisions in the Federal Clean Water Act (Act) to provide financial assistance for water pollution control projects. Minnesota's revolving loan program provides loans to government entities for planning, design and construction of wastewater treatment projects. The Department of Trade and Economic Development's Public Facilities Authority administrates the loan application and the distribution of funds. The loans are for a twenty year period. Current interest rates are approximately three (3) to four (4) percent with some project qualifying for a discounted interest rate of one (1) percent.

There are grant funding programs administered by the Public Facilities Authority which could help lower the overall cost of the project to the participating properties. Two programs this project could quality for are the Point Source Implementation Grant Program (PSIG) and the Wastewater Infrastructure Fund (WIF). PSIG provides grants to units of local government to assist with the cost of water infrastructure projects necessary to meet waste load reductions prescribed under a total maximum daily load (TMDL) plan required by Section 303(d) of the federal Clean Water Act. WIF provides supplemental grants based on affordability criteria to help communities build wastewater treatment projects that address existing environmental or public health problems.

D. Schedule

A proposed implementation time line is as follows:

TABLE 5.1 PROPOSED PROJECT SCHEDULE

January 2016	Complete Preliminary Feasibility Estimates
	Send Updated Project Information to Residents
February 2016	City resolution supporting project for inclusion in Facility Plan
March 2016	Apply for PPL list due March 4 2016
	Facility Plan to MPCA due March 4 2016
May 2016	Hold Facility Plan Public Meeting
	Send letter to PFA requesting placement on the 2017 IUP
June 2016	Wastewater Facilities Plan Preliminary Approval by MPCA (June 30th)
July 2016	Apply for PSIG grant due July 31, 2016
September 2016	PSIG Grant List Released
October 2016	Assessment and Commitment Meeting
	Petition County Board for Bonding
Oct – Nov 2016	County - City develop Joint Powers Agreement
	Final Design of project
Dec 2016 – Feb 2017	County Develop Ordinance/New District Governing the Project
Jan 2017	MPCA permit (Plan approval)
Feb-Mar 2017	Bid project
Mar 2017	Clean Water Revolving Loan Application due to PFA (March 30, 2017)
Apr 2017	Public Hearing and Award Project
June 2017	Begin Construction
June 2018	Construction Completion

E. Project Implementation

1. Public Hearing

A Public Hearing was held on May 17th, 2016 at 10:00 am at the Le Sueur County Board Meeting. The Agenda and PowerPoint Presentation from the Public Hearing is included in Appendix B-1. The Public Hearing Comments are included in Appendix B-2. Included in Appendix C is the Le Sueur County Board of Commissioners Approved Resolution.

The local group of homeowners that are championing this project (Stan and Dale Wills) organized and held an Open House Community Meeting on May 10th, 2016. The Summary from that community meeting has also been included in Appendix C.

2. Key Milestones

Key milestones for implementation of the project and for application for loan program assistance include the following:

- Submittal of Facility Plan for MPCA approval.
- Submittal of Environmental Information Worksheet information for MPCA review and approval. A copy of this information is included in the Appendix.
- Public hearing for the Facility Plan. A copy of the proposed agenda for the meeting is attached in the appendix.
- County Resolution Adopting the Facility Plan will be added as an appendix to this report once the public meeting has been completed and public comments received
- Formation of the new "checkerboard" sanitary service sub-district, Development and adoption of ordinances by the sub-district, development of agreements with the City of Cleveland, and a listing of necessary ordinances and agreements are included in the Appendix.

Appendix A: Environmental Information Worksheet

ENVIRONMENTAL INFORMATION WORKSHEET

West Jefferson Lake Sanitary Sewer Collection System

Le Sueur County, MN

M15.111340

Submitted by:
Bolton & Menk, Inc.
1960 Premier Drive
Mankato, MN 56001
P: 507-625-4171
F: 507-625-4177

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ENVIRONMENTAL INFORMATION WORKSHEET (EIW) FORM

Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155-4194

Clean Water State Revolving Fund
Minnesota Rule Chapter 7077.0272, subp. 2.a.F.
Minnesota Rule Chapter 7077.0277, subp. 3.E.

Doc Type: Environmental Information Worksheet

Eligible applicants seeking funds for clean water (stormwater and wastewater) projects through the Clean Water State Revolving Fund (commonly referred to as the CWSRF Program) are required by Minn. R. ch. 7077.0272, subp. 2.a.F. and Minn. R. ch. 7077.0277, subp. 3.E., to complete an Environmental Information Worksheet (EIW). This information will be used to assess environmental impacts, if any, caused by the project.

For assistance with this worksheet, please visit the Minnesota Pollution Control Agency's website at http://www.pca.state.mn.us/publications/p-ear1-02.pdf for detailed instructions on completing this form.

1. Project Title:

West Jefferson Lake Sanitary Sewer Collection System

2. Proposer:

	Le Sueur County
Contact Person	Darrell Pettis
Title:	County Engineer
Address:	88 South Park Avenue
City, State, ZIP:	Le Sueur, MN 56057
Phone:	507-357-8200
Fax:	
Email:	dpettis@co.le-sueur.mn.us

3. Project Location:

County:	Le Sueur
City/Township:	Cleveland and Washington Townships
PLS Location (¼, ¼, Section, Township, Range):	Sections 3, 4, 21, 28, 33 and 34, Township 109N, Range 25W
GPS Coordinates:	44°16'25.83"N, 93°49'45.85"W

At a minimum attach each of the following to the EAW:

- County map showing the general location of the project;
- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable); and

- Site plans showing all significant project and natural features.

The following items are attached in the Appendix.

Map 1 – General Location Map
Map 2 – Vicinity Map (U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating **project** boundaries.)
Map 3 – Existing Conditions
Map 4 – Existing Land Use
Map 5 – Zoning Map
Map 6 – Land Cover
Map 7 – Soils Map
Map 8 – Prime Farmland and Farmland of Statewide Importance
Map 9 – Hydrologic Soils Group Map
Map 10 – Water Resources, including National Wetland Inventory and Floodplains
Map 11 – Wells

- Well Information
- SHPO response

4. Description

a. Provide a project summary of 50 words or less.

The West Jefferson Sanitary Collection System project involves establishing a sanitary sewer collection system within a portion of West Jefferson Lake and connecting to the existing City of Cleveland's wastewater treatment facility. Low pressure individual grinder pump lift stations are proposed to be located at each home and then discharge to the existing City of Cleveland collection system prior to treatment.

b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

The proposed project includes the construction of a low pressure sanitary sewer collection system with individual grinder lift stations to be located at each residence. The low pressure piping would discharge to the City of Cleveland collection system to be treated at the wastewater treatment facility.

The mainline low pressure pipe would increase incrementally in size from 1.5-inch diameter at the outer extents of the project to 4-inch mains before discharging into the City of Cleveland system.

The number of existing residence connections to be included as part of the project is a maximum of 140 EDU connections, some of which may be connected when these areas are developed at a later date.

It is proposed that the small diameter pressure collection system surrounding the lake will be constructed with directional boring methods. Directional boring methods reduce the extent of open excavation that would normally be required to install the pipelines by open cut methods. Excavation would be required to make connections to the existing sanitary sewer piping at each establishment (assuming approximately 140 connections) and to install the grinder lift station, and approximately 24 excavation points to install the mainline piping in the service area. The new grinder lift stations are proposed to be on private property and all excavated material will be redistributed on site.

Typical construction hours will be limited to daylight hours Monday through Saturday, to minimize the impact on the community.

The existing septic or wastewater treatment systems will be abandoned in place, septic tanks will be crushed and filled with sand or gravel. Modifications to existing water supply systems will only be made as necessary to maintain adequate separation distances.

The general location of the proposed project site is shown on Map 1. The Project boundary is shown on the USGS topo background in Map 2. The Project is south of the city of Cleveland, in Cleveland Township, Le Sueur County. Highway 105 (470th Street) runs along the southern boundary of the service area of the project. The streets within the service area include 281st Avenue, Evergreen Land, Ridge Circle, Cedar Trail, Tomahawk Point, Hub Drive, West Lake Drive, and Maple Drive. The sanitary main will then run along Le Sueur County Highway 18 (Lake Jefferson Road and Dog Creek Road) and Le Sueur County Highway 104 (291st Avenue) to connect to the City of Cleveland's existing sanitary sewer collection system. The surrounding area is rural residences and cultivated agricultural land surrounding West Jefferson Lake. Existing conditions are shown on Map 3. Existing land use for the sanitary main shows the area as "agricultural" on Map 4; and the service area is shown as "residential." The area of the sanitary main is zoned "agriculture" with a small area of "special protection," and the service area is zoned "recreational residential" with small areas of "flood fringe." The land cover of the sanitary main is shown as "cultivated crops," and the service area is shown as a mix of "developed" and "deciduous forest," as seen on Map 6.

The Project involves construction of a sanitary sewer system and lift station, with individual grinder lift stations to be located at each residence. In general, the forcemain will follow the roadways, except for two areas where the forcemain crosses West Jefferson Lake. The proposed project area will be nearby active homes, however no adverse potential impacts on the homes and residents are anticipated.

c. 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 project will be carried out by governmental units: Le Sueur County in cooperation with the City of Cleveland. The project will ensure the wastewater from the homes surrounding the lake is properly treated and disposed of, which in turn will protect human health and the environment. Many of the existing onsite treatment systems have failed. The construction of new onsite systems is very limited due to property setbacks and siting restrictions. There are few property owners that have land available for new on-site systems. The beneficiaries of the project will be the nearby homeowners and community that will use the lake for recreation and the groundwater for drinking.

d. 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.

The piping and conveyance systems are designed to service areas within the service boundary that are not yet fully developed. The facility plan accounts for these future connections, but it is not designed for

specific future development or other type of growth. Individual connections to the system would occur within the planned service area in the future if warranted, and would be considered typical to the existing types of users that would be part of this project.

e. 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.

The project involves advancing the sanitary sewer collection system to connect with the existing system that already exists west of 2nd Avenue on the south side of the City of Cleveland. It is unknown when the existing system was installed, but it is estimated at least 30 years ago.

5. Project Magnitude Data:

Total Project Area (acres)	82.6 acres of lots in the service area
Or Length (miles)	16,000 linear feet of force main (including 2 lake crossing totaling 1,800 linear feet) in the service area and 20,300 linear feet of trunk main to connect to the City, for a total of 36,300 linear feet or 6.9 miles
Number of residential units	N/A
Unattached	N/A
Attached	N/A
Maximum units per building	N/A
Commercial building area (gross floor space in square feet)	N/A
Industrial building area (gross floor space in square feet)	N/A
Institutional building area (gross floor space in square feet)	N/A
Other uses – specify (in square feet)	N/A
Office	N/A
Retail	N/A
Warehouse	N/A
Light Industrial	N/A
Other Commercial (specify)	N/A
Manufacturing	N/A
Other Industrial	N/A
Institutional	N/A
Agricultural	N/A
Structure height(s)	N/A
If over 2 stories, compare to heights of nearby buildings	N/A

6. Permits and Approvals Required:

List all known local, state and federal permits, approvals 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.

Unit of Government	Type of Application	Status
MPCA	Facility Plan Approval	To be submitted
MPCA	Plans/Specifications Approval	To be submitted
MPCA	NPDES / SDS, National Pollution Discharge Elimination System/State Disposal System Construction Activity Permit	To be submitted
Le Sueur County	Conditional Use Permit (CUP)	To be submitted
Le Sueur County	Facility Plan Approval	To be submitted
Le Sueur County	Work in County Right-of-Way	To be submitted
Minnesota Department of Natural Resources ("MN DNR")	Water Appropriations Permit	To be submitted
MN DNR	License to Cross Public Waters/Land	To be submitted
City of Cleveland	Plans/Specifications	To be submitted
City of Cleveland	Work in City Right-of-Way	To be submitted
City of Cleveland	Plan Approval	To be submitted

All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.

7. Land Use:

Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

The current and recent past land use includes residential units, some of which are seasonal in nature. These units are served by on-site sewage treatment systems. The West Jefferson Lake sanitary sewer collection system project includes the lakefront properties which are currently at, or near, build out conditions. No known potential environmental hazards are present.

Currently, the land is rural residences (including a home business) around West Jefferson Lake, as well as cultivated farm fields, with an area of shrubs and trees along the lakeshore. It has been in this use for many years. Land use maps are attached in the Appendix. Existing conditions are shown on Map 3. Existing land use for the sanitary main shows the area as "agricultural" on Map 4; and the service area is shown as "residential." The area of the sanitary main is zoned "agriculture" with a small area of "special protection," and the service area is zoned "recreational residential" with small areas of "flood fringe." The land cover of the sanitary main is shown as "cultivated crops," and the service area is shown as a mix of "developed" and "deciduous forest," as seen on Map 6.

There are no gas or liquid pipelines, nor railroads in the vicinity of the Project. There are overhead power lines along Evergreen Lane, Tomahawk Point, Cedar Court, Maple Drive, West Lake Drive and Le Sueur County Highway 104; but not Hub Drive or 281st Avenue. No impacts to the power lines are anticipated. Other new or expanded utilities, infrastructure or public services are not anticipated to be required to serve the proposed project.

The project surrounds and includes West Jefferson Lake. This lake has an EPA-approved impairment for Nutrient/Eutrophication Biological Indicators. The water resources are shown on Map 10. West Jefferson Lake is shown on the National Wetlands Inventory and is a protected water. Portions of the project is

within the 100-year FEMA floodplain and a shoreland zoning district. The Project is not within a state or federally designated wild or scenic river land use district.

No land use incompatibility is expected because no change to land use is anticipated, and the existing land use at the environmental study area complies with the Comprehensive Plan. No land use mitigation measures are anticipated because no land use incompatibility is expected.

8. Cover Types:

Estimate the acreage of the site with each of the following cover types before and after development:

	Before	After		Before	After
Types 1-8 Wetlands	--	--	Lawn/landscaping	--	--
Wooded/forest	--	--	Impervious surfaces (paved/gravel)	--	--
Brush/Grassland	--	--	Other (describe):	--	--
Cropland	--	--	**TOTAL**	See below	--

No land use will be changed as a result of this project, so the "before" and "after" areas are the same. The service area and the sanitary main alignment were summed separately, to give a more precise idea of land use within the areas. The sanitary main area was conservatively calculated by taking the length of the alignment and a 50-ft wide buffer.

Service Area Project Boundary	
Land Cover	Area
Cultivated Crops	11.72 acres
Deciduous Forest	43.39 acres
Developed, Low Intensity	13.19 acres
Developed, Medium Intensity	1.33 acres
Developed, Open Space	17.22 acres
Evergreen Forest	0.62 acres
Hay/Pasture	16.61 acres
Herbaceous	4.42 acres
Open Water	57.22 acres
Shrub/Scrub	2.78 acres
Service Area Total	**168.50 acres**

Sanitary Main (50 ft. buffer)	
Land Cover	Area
Cultivated Crops	35.96 acres
Deciduous Forest	0.22 acres
Developed, Low Intensity	13.47 acres
Developed, Medium Intensity	1.45 acres
Developed, Open Space	7.88 acres
Hay/Pasture	5.60 acres
Sanitary Main Total	**64.58 acres**

Total of service area and sanitary main is 233.08 acres.

9. Fish, wildlife, and ecologically sensitive resources:

a. Describe fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

The current and recent past land use includes residential units, including a home business, and agriculture. Currently, the land is rural residences (including a home business) around West Jefferson Lake, as well as cultivated farm fields, with an area of shrubs and trees along the lakeshore. Wildlife in this part of Le Sueur County includes deer, coyote, turkey, raccoon, rabbit, squirrel, pheasant, skunk, woodchuck, groundhog, gopher, turtles, and other birds common in the area. According to the MN DNR Lake Finder website, fish in West Jefferson Lake are black bullhead, black crappie, bluegill, green sunfish, hybrid sunfish, lake sturgeon, largemouth bass, northern pike, pumpkinseed, walleye, white bass, white crappie, yellow bullhead, yellow perch, bigmouth buffalo, bowfin (dogfish), common carp, freshwater drum, longnose gar, white sucker, bluntnose minnow, golden shiner, and spottail shiner.

The proposed project may displace the wildlife population that uses the open areas for protection, food and cover where active construction is taking place. If wildlife is present, it may relocate to other nearby habitat in the area until construction is over.

Directional boring is proposed in lieu of open trench construction to minimize impact through natural habitat areas around West Jefferson Lake. Any impact to wildlife will be minimal based on disturbance during construction period.

b. Are any state (endangered or threatened) species, rare plant communities or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies or regionally rare plant communities on or near the site? ☒ Yes ☐ No

If yes, describe the resource and how it would be affected by the project. If the Minnesota Department of Natural Resources (DNR) Natural Heritage and Nongame Research program has been contacted give the correspondence reference number: _ERDB 20160333_____

Describe measures to minimize or avoid adverse impacts.

DNR Natural Heritage Information System has been contacted, and a response was received on March 25, 2016. The following rare features may be adversely affected by the proposed project: bald eagles (Haliaeetus leucocephalus) and the northern long-eared bat (Myotis septentrionalis). Bald eagles may nest in trees in the area, and the northern long-eared bat may roost in trees in the area; however, the Natural Heritage Information System does not contain any known occurrences of northern long-eared bat roosts or hibernacula within an approximate one-mile radius of the proposed project.

The Proposed Action would result in displacement of wildlife that depend upon upland habitat. However, as discussed in previous sections, the primary land uses in the environmental study area are residential and agricultural, and therefore does not represent an outstanding or unique natural habitat resource. Development will generally reduce natural habitat and result in more barriers to wildlife movement. The Proposed Action is anticipated to impact a Public Waters Inventory lake (West Jefferson Lake), but this will be minimized by using directional boring. Wetlands are addressed in greater detail in Item 11. The environmental study area has been reviewed for wetlands consistent with applicable regulatory requirements.

The environmental study area is in the Oak Savanna subsection within the DNR/US Forest Service ecological classification system. Oak, Maple, and Basswood were the most common species in this region

prior to European American settlement. Due to widespread agricultural practices and urban settlement, the Oak Savanna subsection has undergone substantial changes relative to its historic character. Today, the majority of the environmental study area consists of residences and cropland.

The proposed project may displace the wildlife population that uses the open areas for protection, food and cover. If wildlife is present, it may relocate to other nearby habitat in the area until construction is over. Some species may return after construction is complete and some others may be permanently displaced.

The increased development and spread of diseases such as Dutch Elm Disease and Oak Wilt have impacted trees and woodlands in this region. Trees infected with Dutch elm disease or oak wilt must be removed promptly so they don't infect healthy trees.

In order to prevent the spread of tree diseases, the Project Proposer will be encouraged to avoid carrying out clearing operations in the wooded areas during the peak infection period (April – June), and to treat oak wilt prior to breaking ground.

The bald eagle is federally protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Trees will be inspected for nests prior to being cut down. If an eagle is nesting in a tree that must be cut down, the US Fish and Wildlife will be contacted to properly follow the procedures to get a permit for unintentional disturbance.

The northern long-eared bat, found throughout Minnesota, is federally-listed as threatened and state-listed as special concern. Activities that may impact this species include, but are not limited to, any disturbance to hibernacula, and destruction/degradation of habitat (including tree removal). The Proposer will generally avoid activities such as tree removal during the active season, April through October. If disturbance to trees during that time is unavoidable, the final USFWS 4(d) rule will be followed and documented.

Vegetation management in infrequently mowed areas – such as ditches and along utility access roads – should be done mechanically (chemicals should not be used). Vegetation management should occur fall through spring (after October 1st and before June 1st).

10. Physical Impacts on Water Resources:

Will the project involve the physical or hydrologic alteration (dredging, filling, stream diversion, outfall structure, diking, and impoundment) of any surface waters such as a lake, pond, wetland, stream or drainage ditch? ☒ Yes ☐ No

If yes, identify water resource affected. Describe alternatives considered and proposed mitigation measures to minimize impacts. Give the DNR Protected Waters Inventory (PWI) number(s) if the water resources affected are on the PWI.

The environmental study area includes, is within 1 mile of, and drains to West Jefferson Lake. This lake has an EPA-approved impairment for Nutrient/Eutrophication Biological Indicators. The location of the Project in relation to the lake is shown on Map 2.

This project will have a positive impact on West Jefferson Lake by reducing the nutrient load from the domestic septic systems.

The project scope includes constructing the sanitary sewer collection system by directional drilling methods. Directional drilling reduces the disruption to the existing ground surface and reduces potential physical impacts to the lake and wetlands.

The project scope does not include any proposed changes, additions, or updates to any stormwater collection piping or surface water conveyance systems. If these items are encountered during construction, they will be repaired or replaced to match the existing piping in order to maintain the existing drainage patterns.

West Jefferson Lake is listed on the National Wetland Inventory and protected waters, as shown on Map 10. The service area is partially within the FEMA floodplain and the shoreland district. There are also FEMA floodways and NWI wetlands along the sanitary main alignment.

No impacts to other surface waters are anticipated.

11. Water Use:

Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)? ☒ Yes ☐ No

If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

There are no private domestic wells that need to be abandoned or relocated to meet separation distances for water and sewer lines. There are no new wells being proposed. Map 11 shows the existing well locations.

Well logs for 17 wells were obtained from the MDH County Well Index website. Sixteen wells had a depth to static water level reported. Three of the neighboring wells on the County Well Index obtain their water from the Prairie Du Chien, and the rest are from the Quat. Buried Artesian Aquifer. The Project is not within a MDH wellhead protection area.

Dewatering will only be done, if required, to excavate at locations to install sanitary sewer appurtances and to make connections to pipelines at isolated locations. If an investigation determines there is no other installation method feasible other than dewatering, a pumping system will be set up in order to excavate and make the necessary sanitary sewer connection.

12. Water-related Land Use Management Districts:

Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district? ☒ Yes ☐ No

If yes, identify the district and discuss project compatibility with district land use restrictions.

Le Sueur County has in place a shoreland zoning district that covers West Jefferson Lake. These ordinances cover such topics as: setbacks of structures from the shoreline, percent of impervious, cover allowed, allowing controlled access lots, erosion control, agricultural uses within the shoreland district, allowing density increases for certain practices in planned unit developments, and limited stormwater management within planned unit developments.

The project is not anticipated to impact the shoreland of West Jefferson Lake. Since the pipelines are proposed to be installed by trenchless methods, the impact to the shoreline should not be affected. The work associated with the installation of the sanitary sewer is considered compatible with the types of land use restrictions that have already taken place in the area.

13. Water Surface Use:

Will the project change the number or type of watercraft on any water body? ☐ Yes ☒ No

If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

No change to number or type of watercraft is anticipated.

14. Erosion and Sedimentation:

Give the acreage to be graded or excavated and the cubic years of soil to be moved:

Acres 4 acres **Cubic Yards** 8,000 cubic yards.

Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

Soil types in and near the proposed area are shown on Map 7. Soil types present on the Project are:

Symbol	Map Unit Name	Highly Erodible, Potentially Highly Erodible, Not Highly Erodible?
86	Canisteo clay loam, 0 to 2 percent slopes	NHEL
106B	Lester loam, 2 to 6 percent slopes	NHEL
106C2	Lester loam, 6 to 10 percent slopes, moderately eroded	PHEL
106E	Lester loam, 16 to 22 percent slopes	HEL
109	Cordova clay loam, 0 to 2 percent slopes	NHEL
114	Glencoe clay loam, 0 to 1 percent slopes	NHEL
123	Dundas silt loam, 0 to 2 percent slopes	NHEL
183	Dassel loam	NHEL
239B	Le Sueur loam, 1 to 3 percent slopes	NHEL
414	Hamel loam, 0 to 2 percent slopes	NHEL
525	Muskego soils, 0 to 1 percent slopes	NHEL
539	Klossner muck, 0 to 1 percent slopes	NHEL
945F	Lester-Storden loams, 18 to 40 percent slopes	HEL
978	Cordova-Rolfe complex, 0 to 2 percent slopes	NHEL
1901B	Le Sueur-Lester complex, 1 to 6 percent slopes	NHEL

The Natural Resources Conservation Service has stated that there are highly erodible soils in the proposed environmental study area. (USDA Natural Resources Conservation Service, Highly Erodible Soils, Le Sueur County, Minnesota). There are also steep slopes (defined as greater than 12 percent slopes) that have been identified.

It is estimated that 6-10 cubic yards will be excavated for installation of each grinder station and directional bore set up. These locations are not known for steep slopes or highly erodible soils. Best management practices will be employed where necessary. Silt fences and sediment logs will be constructed and maintained to minimize stormwater erosion in accordance with the NPDES construction permit.

The sanitary sewer project will not change the amount of impervious surface, create additional stormwater volume or increase discharge flow rates. As part of the design process, an Erosion and Sediment Control Plan and a Storm Water Pollution Prevention Plan (SWPPP) will be submitted for review and approval. The contractor must also obtain and comply with National Pollutant Discharge Elimination System (NPDES) permit requirements, including the SWPPP.

In all areas outside of the construction area, the existing vegetation shall be preserved to prevent erosion. During construction, silt fences and seeding disturbed slopes will be utilized as soon as possible to limit the amount of sediment leaving the site. Silt fences will be installed down gradient from construction areas and wherever runoff from the construction area discharges from the site. Slopes will be flattened in graded areas as much as possible to prevent erosion and sediment deposits.

15. Water Quality – Surface Water Runoff:

a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any storm water pollution prevention plans.

The quantity and quality of runoff are not anticipated to change significantly as a result of the project. A small decrease in the runoff quantity may be noted as the septic systems' absorption field will not be saturated.

A Storm Water Pollution Prevention Plan will be created and implemented as part of the improvements process. Temporary sediment and erosion control measures will utilize various BMPs during the construction of the improvements. These types of BMP's include silt fence, bioroll, rock construction entrances, mulching and hydroseeding.

b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

Receiving waters for most of the project is West Jefferson Lake. The storm water management system for the Project area will be designed to manage runoff so as to prevent negative impacts upon the West Jefferson Lake water quality. The long term impacts are negligible, as there is no increase in impervious area and areas disturbed during construction will be restored to their original condition following construction. The volume and rate of runoff water generated by the Project area is expected to be the same after construction is completed. It is the Proposer's goal to make sure the storm water quantity and quality stay the same as or better than current conditions, both during construction and after construction.

16. Water Quality - Wastewater:

a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

The project involves collection of domestic wastewater generated from homes and businesses. The wastewater will be piped for treatment to a mechanical treatment facility. Construction of the project will not result in construction-related wastewater.

b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

Waste treatment methods include mechanical activated sludge treatment at the City of Cleveland. The additional load on the treatment facility is not anticipated to alter the POTW discharge quality.

c. If wastes will be discharged into a publicly owned treatment facility, identify the facility,

describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.

The wastewater is proposed to be treated at the City of Cleveland wastewater treatment facility. The additional load to the POTW is within the design capacity for the POTW. The average flow per day from the West Jefferson Lake service area is estimated at 140 connections * 2.4 person/connection * 100 gal/person = 33,600 gallons per day. The City of Cleveland staff have indicated that the City's treatment facility has available capacity to treat waste from the proposed project.

17. Geology, Soils and Topography/Land Forms:

a. Approximate depth (in feet) to

Minimum depth to groundwater (in feet)	Average depth to groundwater
112	139
Minimum depth to bedrock (in feet)	**Average depth to bedrock**
256	289

Describe any of the following geologic site hazards to groundwater and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.

Information for depth to bedrock from well logs for wells 119674, 119694, 119730, 160388, 188649, 190621, 218436, 218438, 218438, 218440, 218441, 404663, 413850, 423368, 433337, 504556, 592759, and 592760. Sixteen wells had static depth to water reported, but only three wells had a depth to bedrock reported. There are no known geologic hazards, such as karst, in the vicinity.

b. Describe the soils on the site, giving U.S. Soil Conservation Service (SCS) classifications, if known. Discuss soil granularity and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

Soil types in and near the proposed area are shown on Map 7. Soil types present on the Project are:

Symbol	Map Unit Name	Hydrologic Soil Group
86	Canisteo clay loam, 0 to 2 percent slopes	C/D
106B	Lester loam, 2 to 6 percent slopes	C
106C2	Lester loam, 6 to 10 percent slopes, moderately eroded	C
106E	Lester loam, 16 to 22 percent slopes	C
109	Cordova clay loam, 0 to 2 percent slopes	C/D
114	Glencoe clay loam, 0 to 1 percent slopes	C/D
123	Dundas silt loam, 0 to 2 percent slopes	C/D
183	Dassel loam	A/D
239B	Le Sueur loam, 1 to 3 percent slopes	C/D
414	Hamel loam, 0 to 2 percent slopes	C/D
525	Muskego soils, 0 to 1 percent slopes	C/D
539	Klossner muck, 0 to 1 percent slopes	C/D
945F	Lester-Storden loams, 18 to 40 percent slopes	B
978	Cordova-Rolfe complex, 0 to 2 percent slopes	C/D
1901B	Le Sueur-Lester complex, 1 to 6 percent slopes	B/D

The Project has almost entirely Hydrologic Soil Group Type C soils (with smaller areas of A/D, B and C/D soils), which have a relatively low infiltration rate. If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

The typical characteristics of each soil class within the project area are identified below:
Type A soils (sand) have a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.
Type B soils (silt loam or loam) have moderate infiltration rates when thoroughly wetted and consist chiefly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission (0.15 to 0.30 in/hr).
Type C soils (sandy clay loam) have low infiltration rates when thoroughly wetted and consist chiefly of soils with a layer that impedes downward movement of water and soils with moderately fine to fine texture. These soils have a low rate of water transmission (0.05 to 0.15 in/hr).
Type D soils (clay loam, silty clay loam, sandy clay, silty clay, or clay) have high runoff potential. They have very low infiltration rates when thoroughly wetted and consist chiefly of clay soils with a high swelling potential, soils with a permanent high water table, soils with a clay pan or clay layer at or near the surface, and shallow soils over nearly impervious material. These soils have a very low rate of water transmission (0-0.05 in/hr).

18. Solid Wastes, Hazardous Wastes, Storage Tanks:

a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

Biosolids produced through the treatment process from the wastewater generated from the project will be stabilized and disposed of with the biosolids the City of Cleveland currently handles with their current wastewater flow. The current disposal method is land application.

b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

No known toxic or hazardous materials are present. During construction of the project, any toxic or hazardous materials will be properly used, stored and disposed of when finished.

c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

There are no known above or below ground tanks are located within the project area. There will be no temporary tanks on site during construction. Refueling will take place from tanker trucks, and will occur in areas that are not environmentally sensitive. There will be no permanent storage tanks located on the site after project completion.

19. Transportation

Parking spaces added	NA
Existing spaces (if project involves expansion)	NA

Estimated total average daily traffic generated	NA
Estimated maximum peak hour traffic generated (if known) and its timing	NA

Provide an estimate of the impact on traffic congestions affected roads and describe any traffic improvements necessary. If the project is within the Twin Cities metropolitan area, discuss its impact on the regional transportation system.

The proposed project area is located in Le Sueur County which is not in the Twin Cities metropolitan area and therefore has no direct impact on the Twin Cities regional transportation system. No changes to traffic levels are anticipated, and therefore no mitigation measures are planned.

20. Vehicle-related Air Emissions

Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. Note: If the project involves 500 or more parking spaces, consult *Environmental Assessment Worksheet (EAW) Guidelines* about whether a detailed air quality analysis is needed.

No change is anticipated as this is an underground utility project.

21. Stationary Source Air Emissions

Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult *EAW Guidelines* for a listing), any greenhouse gases (such as carbon dioxide, methane, and nitrous oxides), and ozone-depleting chemicals (chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

The sanitary sewer utility project does not include any stationary sources that will generate air emissions. Air borne dust may be generated during construction of the project. Best management practices will be followed and will be stated within the construction specifications.

22. Odors, Noise and Dust:

Will the project generate odors, noise or dust during construction or during operation? ☒ Yes ☐ No

If yes, describe sources, characteristics, duration, quantities, or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

During construction, dust emissions will increase temporarily. Adverse impacts are not anticipated. Dust and noise may temporarily impact residents in the vicinity of construction. Noise from construction activities will be limited to daylight hours from 7 am to 10 pm weekdays, with weekend hours limited to 9 am to 9 pm. Consideration will be given to suppression of airborne dust by application of water if significant dust generation occurs during site grading. After the sanitary sewer is constructed, odors, noise, and dust should be limited to the existing levels. The nearest sensitive receptors are the residential homes located along the sewer alignment.

23. Nearby Resources:

Are any of the following resources on or in proximity to the site? Projects should search the State

Historic Preservation Office's (SHPO) National Register of Historic Places database by calling 651-259-3453.

*Note: Project proposers must contact the SHPO at Thomas@cinadr@mnhs.org or 651-259-3453 to request a database review to obtain information on any known historical or archaeological sites in the project area. Include a copy of correspondence with SHPO with the submittal of this EIW form.

a. Archaeological, historical, or architectural resources? ☐ Yes ☒ No

A review of files at the State Historic Preservation Office (SHPO) did not identify any previously conducted archaeological sites within the proposed project area and it appears that much of the project area has not been surveyed for cultural resources. The SHPO does have records of 7 known archaeological sites, 21LE0025, 21LE0102, 21LE130, 21LE0131, 21LE0132, 21LE0133, and 21LE0134. Of those, 21LE0132 to 21LE0134 are immediately adjacent to the project area. These sites were identified through surface survey and the known site boundaries do not extend into the project area. There are no historic sites that are listed on the State or National Register of Historic Places within one mile of the proposed project area.

The proposed project will not impact previously identified archaeological resources. In order to avoid inadvertent damage to the immediately adjacent sites, directional boring equipment will be staged as far from the known sites as possible.

b. Prime or unique farmlands or land within an agricultural preserve? ☒ Yes ☐ No

Refer to Map 7 for soils locations and Map 8 for Prime Farmland and Farmland of Statewide Importance. Soil information from the Natural Resources Conservation Service (USDA Natural Resources Conservation Service identifies prime farmlands and farmlands of statewide importance within the boundaries of the proposed project area. The U.S. Department of Agriculture defines "prime farmland soils" as soils that are best suited to food, feed, forage, fiber and oilseed crops. The soils that are considered prime farmland are shown in the table below. The U.S. Department of Agriculture defines "farmland of statewide importance" as land, in addition to prime farmlands, that is of statewide importance for the production of food, feed, forage, fiber and oilseed crops. The environmental study area does have a soil that is considered farmland of statewide importance, as well as two that are prime farmland and three that are prime farmland if drained. More information about the criteria for prime and important farmland can be obtained at the local office of the Natural Resources Conservation Service. The project is not anticipated to change any land use, so this will not cause adverse impacts to prime or unique farmlands.

Symbol	Map Unit Name	Farmland Rating
86	Canisteo clay loam, 0 to 2 percent slopes	Prime farmland if drained
106B	Lester loam, 2 to 6 percent slopes	All areas are prime farmland
106C2	Lester loam, 6 to 10 percent slopes, moderately eroded	Farmland of statewide importance
106E	Lester loam, 16 to 22 percent slopes	Not prime farmland
109	Cordova clay loam, 0 to 2 percent slopes	Prime farmland if drained
114	Glencoe clay loam, 0 to 1 percent slopes	Prime farmland if drained
123	Dundas silt loam, 0 to 2 percent slopes	Prime farmland if drained
183	Dassel loam	Not prime farmland
239B	Le Sueur loam, 1 to 3 percent slopes	All areas are prime farmland
414	Hamel loam, 0 to 2 percent slopes	Prime farmland if drained
525	Muskego soils, 0 to 1 percent slopes	Farmland of statewide importance
539	Klossner muck, 0 to 1 percent slopes	Farmland of statewide importance
945F	Lester-Storden loams, 18 to 40 percent slopes	Not prime farmland
978	Cordova-Rolfe complex, 0 to 2 percent slopes	Prime farmland if drained
1901B	Le Sueur-Lester complex, 1 to 6 percent slopes	All areas are prime farmland

c. Designated parks, recreation areas, or trails? ☐ Yes ☒ No

There are no State parks or trails within or nearby the boundaries of the proposed project area. There is the Jefferson Lake (SW) State Water Access Site off of Highway 105 (470th Street). There is also another Jefferson Lake (W) State Water Access Site off of Highway 15, as well as the West Jefferson Spawning Area. Also nearby are the Bur Oak and Frank Breen Memorial Wildlife Management Areas. This Project is not anticipated to impact the water access points, wildlife management areas or any other park or public space.

d. Scenic views and vistas? ☐ Yes ☒ No

No scenic views or vistas from either the landowner's point of view or automobile driver's point of view will be affected by addition of sanitary sewer to the project site. No adverse visual impacts are anticipated.

e. Other unique resources? ☐ Yes ☒ No

None known.

If yes, describe the resource and identify any project-related impacts on the resources. Describe any measures to minimize or avoid adverse impacts.

24. Visual Impacts:

Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks? ☐ Yes ☒ No

If yes, explain.

There is no permanent lighting anticipated to be placed on the environmental study area. Lighting may be used on a temporary, as-needed basis. No adverse visual impacts are anticipated.

25. Compatibility with Plans and Land Use Regulations:

Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency? ☒ Yes ☐ No

If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

No change to land use is anticipated, therefore no adverse impacts are anticipated.

26. Impact on Infrastructure and Public Services:

Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project? ☐ Yes ☒ No

If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; see *EAW Guidelines* for details.)

The sanitary sewer project will not require additional utilities, roads or other infrastructure. The sewer is being proposed to be constructed primarily along existing roads and rights-of-way and will connect to the

existing City of Cleveland sanitary sewer collection system. Where the forcemain crosses the lake, the alignment will follow property lines. No adverse impacts are anticipated.

27. Cumulative Impacts:

Minn. R. 4410.1700, subp. 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative impacts. Describe the nature of the cumulative impacts and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to cumulative impacts (or discuss each cumulative impact under appropriate item(s) elsewhere on this form).

The proposed project presents opportunities to improve existing sanitary sewer systems or mitigate potential negative impacts from noncompliant and failing sewer systems. Positive impacts of the project include providing wastewater collection for area residents and businesses where on-site sewer treatment systems are failing. If connections to properties adjacent to the collection system are done over a phased period, isolated areas of disturbance may occur during the construction of these connections. This work is not expected to significantly impact the surrounding area in a negative fashion, as it will be very similar in nature to the construction of this initial project.

28. Other Potential Environmental Effects:

If the project may cause any additional environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.

There are no other potential environmental impacts that have not already been discussed above.

29. Summary of Issues:

List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

There are no anticipated further investigations before the Project begins. There are no other potential environmental impacts that have not already been discussed above.

[redacted]

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 3/3/2016

Title LE Sueur Co Engineer/Administrator

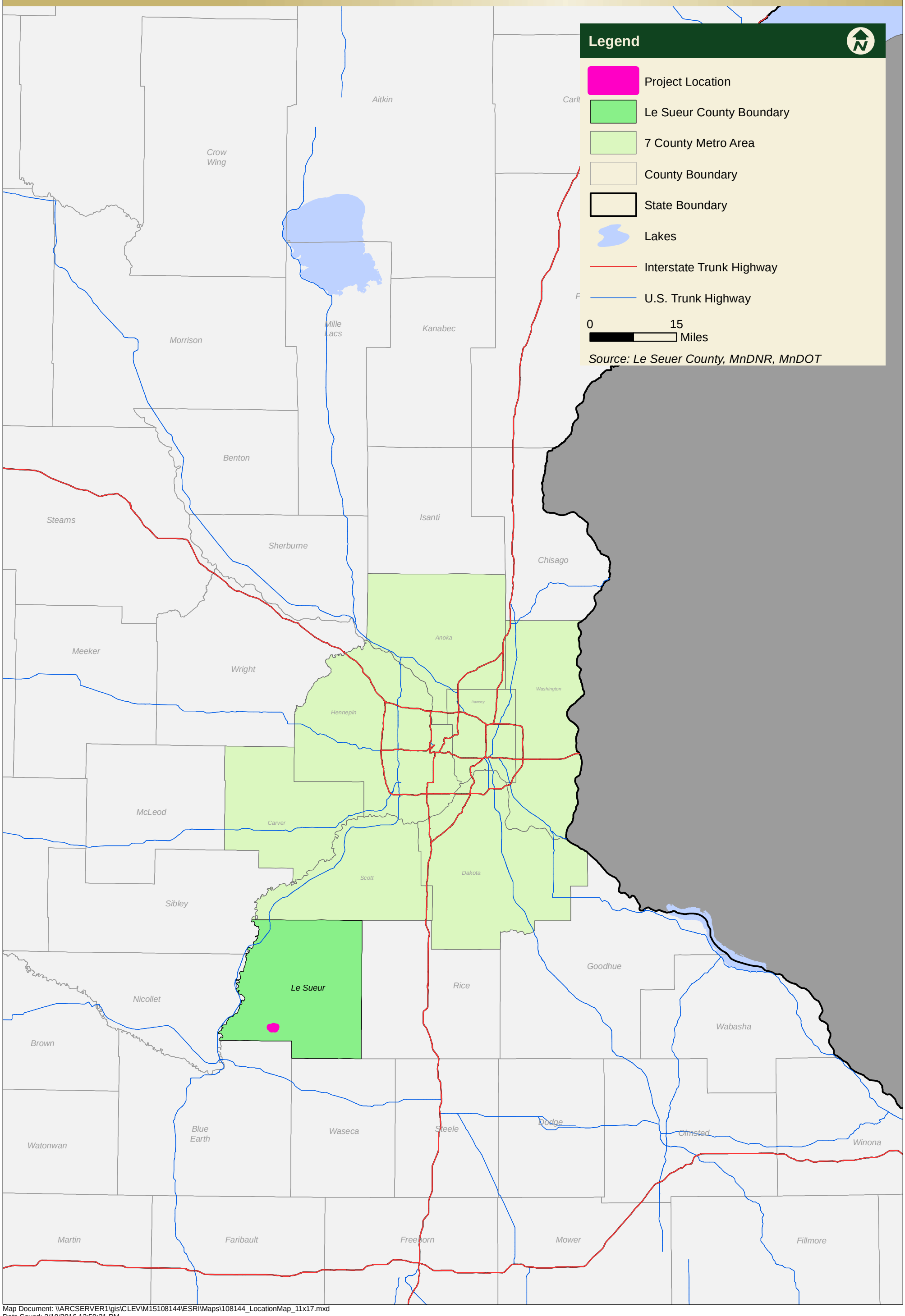
Appendix

West Jefferson Connection Study

City of Cleveland

Map 1 - Location Map

February, 2016



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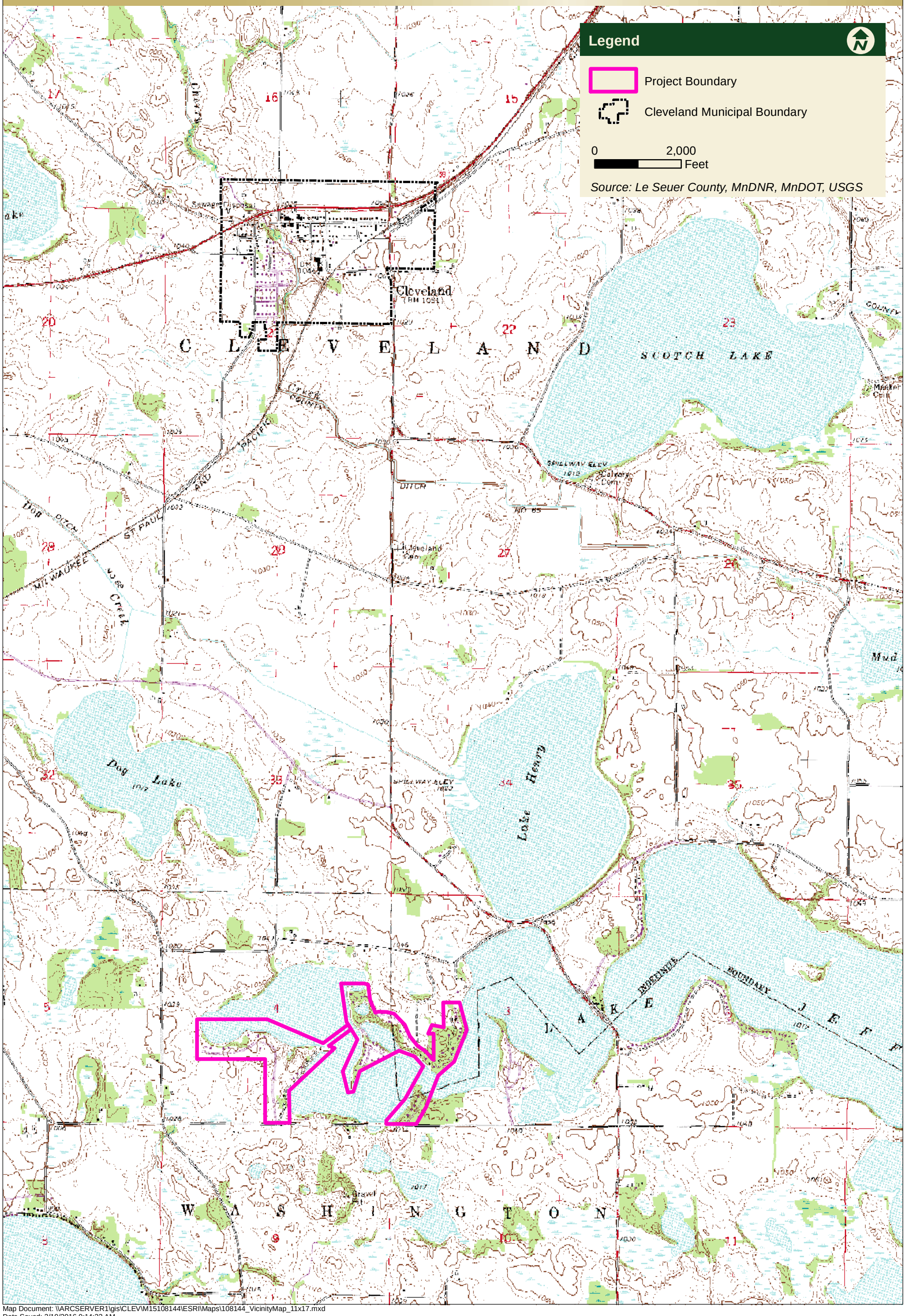
West Jefferson Connection Study

City of Cleveland

Map 2 - Vicinity Map

February, 2016



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West Jefferson Connection Study

City of Cleveland

Map 3 - Existing Conditions

February, 2016

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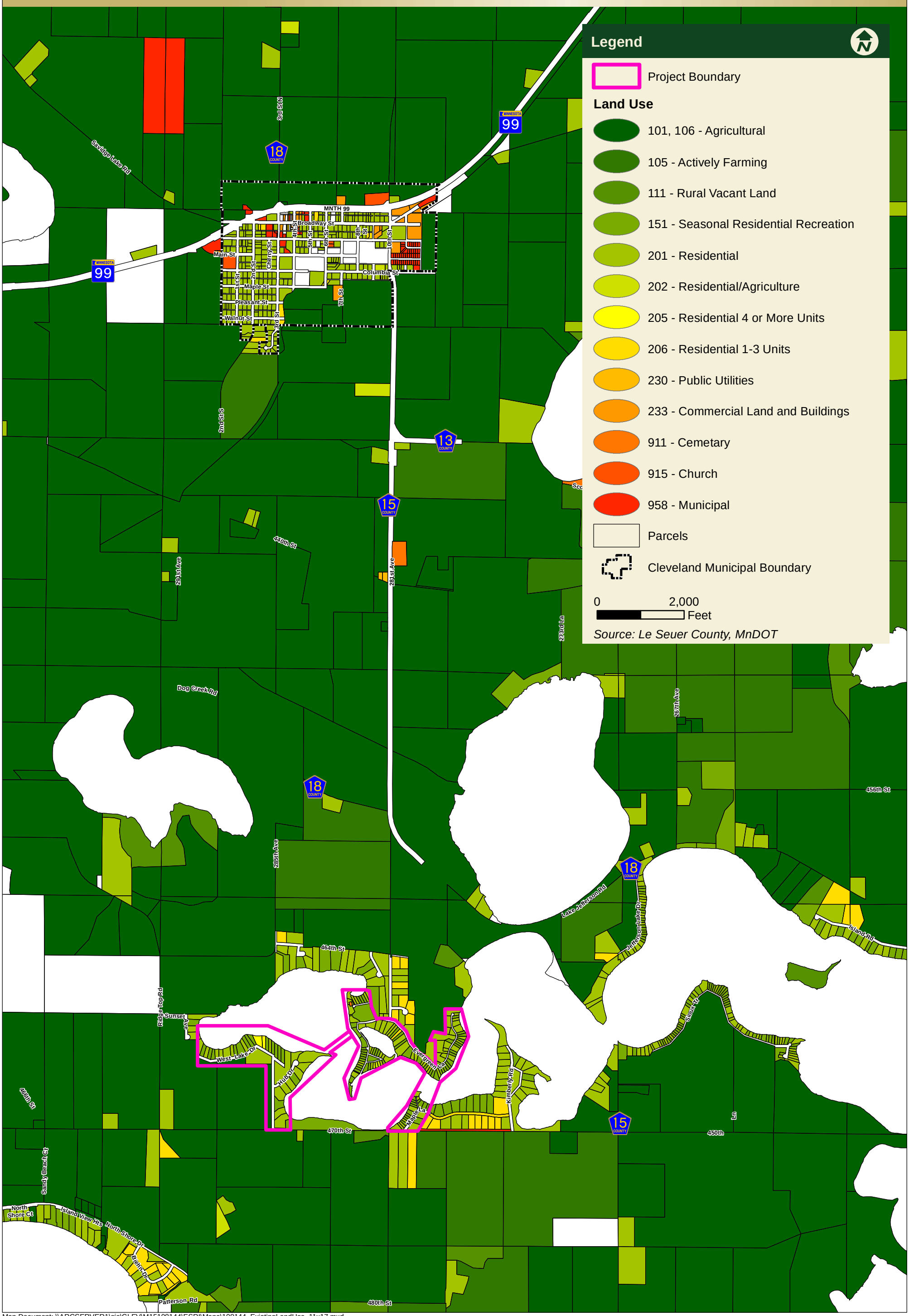
West Jefferson Connection Study

Map 4 - Existing Land Use

City of Cleveland

February, 2016

BOLTON & MENK Engineers & Surveyors



Legend

Project Boundary

Land Use

- 101, 106 - Agricultural
- 105 - Actively Farming
- 111 - Rural Vacant Land
- 151 - Seasonal Residential Recreation
- 201 - Residential
- 202 - Residential/Agriculture
- 205 - Residential 4 or More Units
- 206 - Residential 1-3 Units
- 230 - Public Utilities
- 233 - Commercial Land and Buildings
- 911 - Cemetary
- 915 - Church
- 958 - Municipal
- Parcels
- Cleveland Municipal Boundary

0 2,000 Feet

Source: Le Seuer County, MnDOT

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West Jefferson Connection Study

City of Cleveland

Map 5 - Zoning

February, 2016

Legend

- Project Boundary
- City - Agricultural District
- City - Highway Business District
- City - General Business District
- City - Residential District
- County - Agricultural
- County - Conservancy
- County - Special Protection
- County - Recreational Commercial
- County - Recreational Residential
- County - Mineral Resources
- County - Flood Fringe
- Cleveland Municipal Boundary

0 2,000 Feet

Source: Le Seuer County, MnDOT

Project Location

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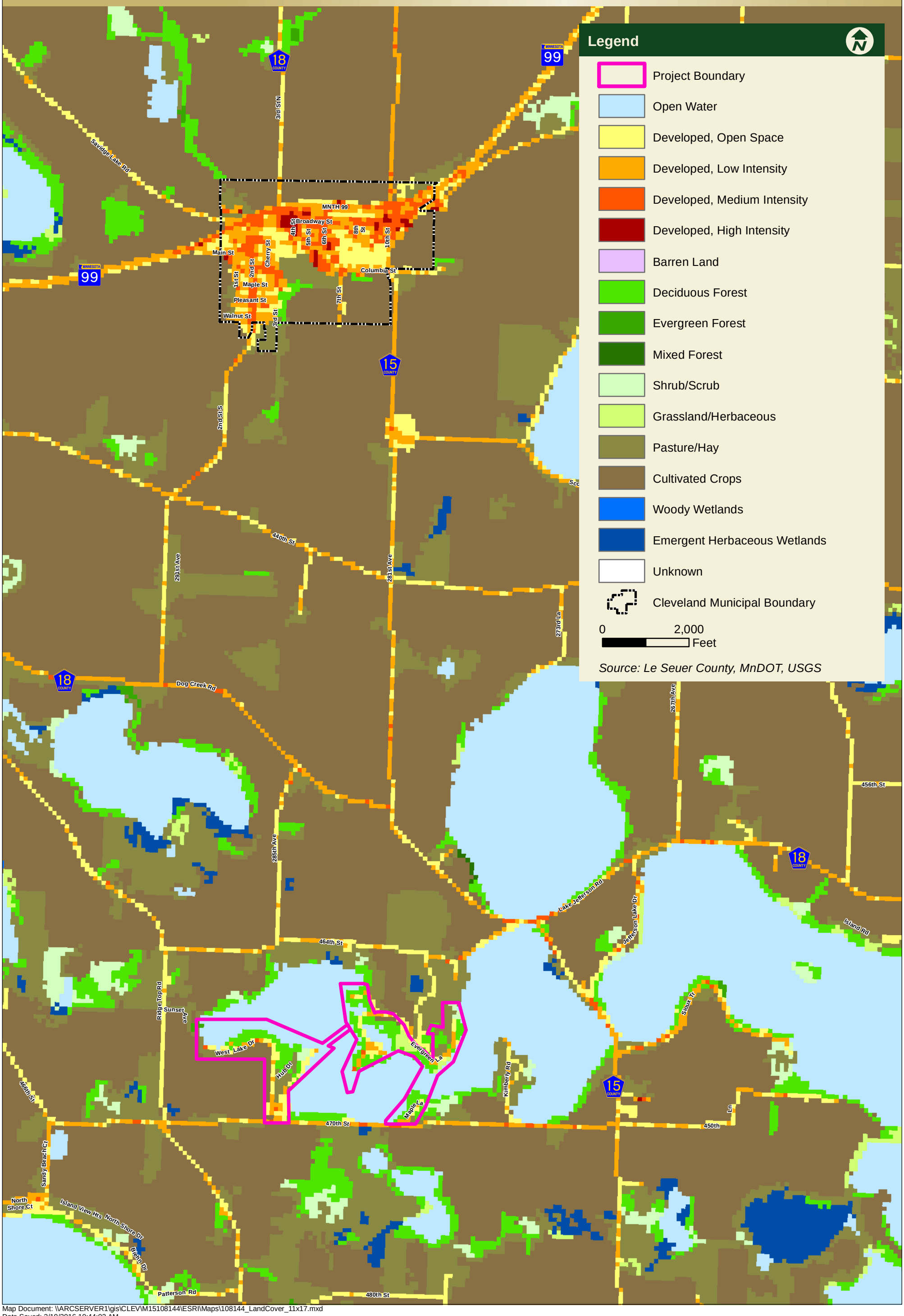
West Jefferson Connection Study

City of Cleveland

Map 6 - Land Cover

February, 2016

BOLTON & MENK Engineers & Surveyors



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West Jefferson Connection Study

Map 7a - Soils Map, Service Area

City of Cleveland

February, 2016

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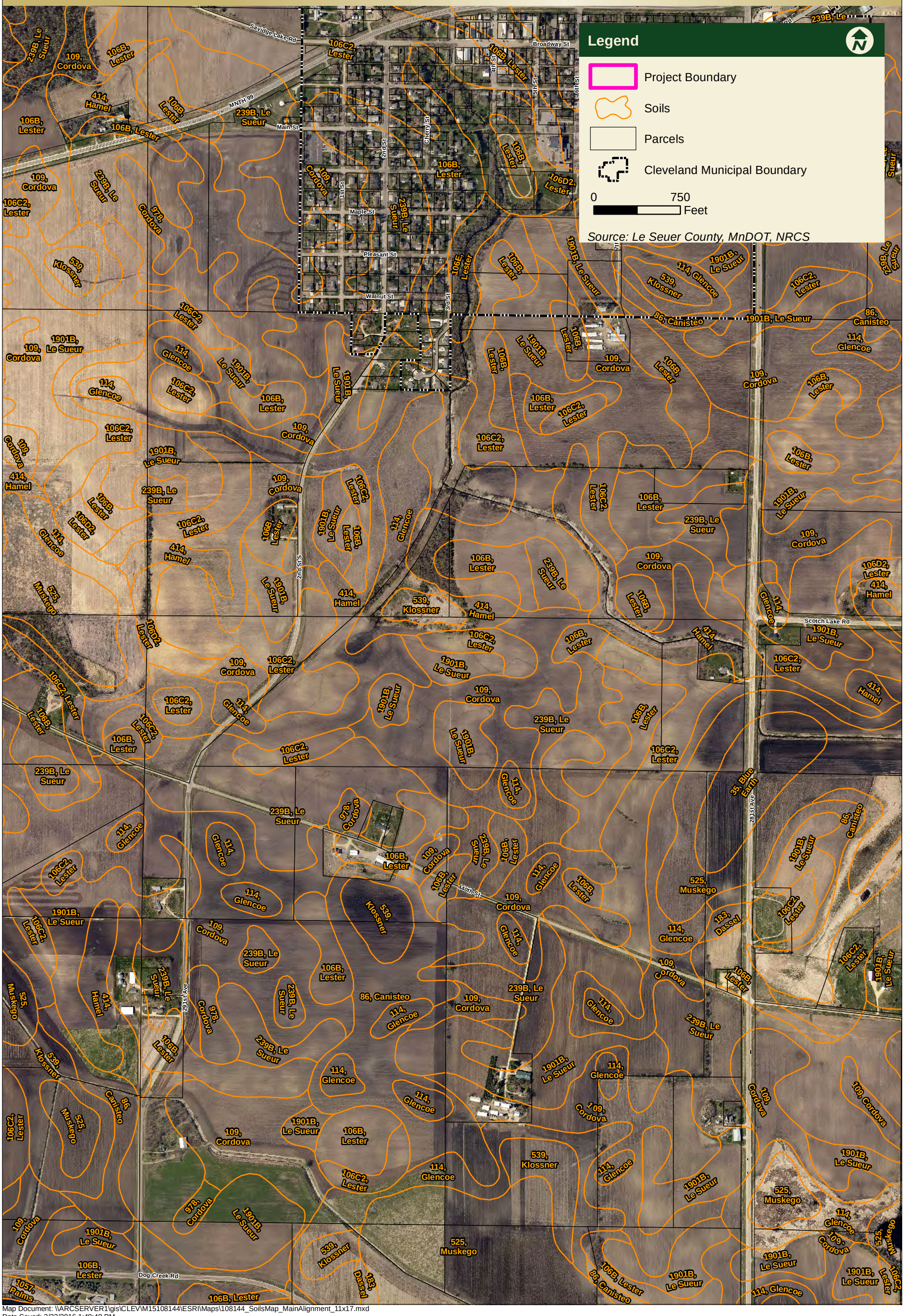
West Jefferson Connection Study

Map 7b - Soils Map, Main Alignment

City of Cleveland

February, 2016



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West Jefferson Connection Study

City of Cleveland

Map 8 - Prime Farmland and Farmland of Statewide Importance

February, 2016

Legend

- Project Boundary
- All Areas are Prime Farmland
- Farmland of Statewide Importance
- Parcels
- Cleveland Municipal Boundary

0 2,000 Feet

Source: Le Seuer County, MnDNR, MnDOT

Map Document: \\ARCSERVER1\gis\CLEV\M15108144\ESRI\Maps\108144_PrimeFarmland_FarmlandOfStatewideImportance_11x17.mxd
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West Jefferson Connection Study

Map 9 - Hydrologic Soils Group

City of Cleveland

February, 2016

Legend

Hydrological Soils Group

- A
- A/D
- B
- B/D
- C
- C/D
- Project Boundary
- Parcels
- Cleveland Municipal Boundary

0 2,000 Feet

Source: Le Seuer County, MnDNR, MnDOT

Map Document: \\ARCSERVER1\gis\CLEV\M15108144\ESRI\Maps\108144_HydrologicSoilsGroup_11x17.mxd
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West Jefferson Connection Study

City of Cleveland

Map 10 - Water Resources

February, 2016

BOLTON & MENK Engineers & Surveyors

Legend

- Project Boundary
- National Wetlands Inventory
- FEMA Floodways
- Protected Waters - Basin
- Protected Waters - Watercourse
- Parcels
- Cleveland Municipal Boundary

0 2,000 Feet

Source: Le Seuer County, MnDNR, MnDOT

Map Document: \\ARCSERVER1\gis\CLEV\M15108144\ESRI\Maps\108144_WaterResources_11x17.mxd
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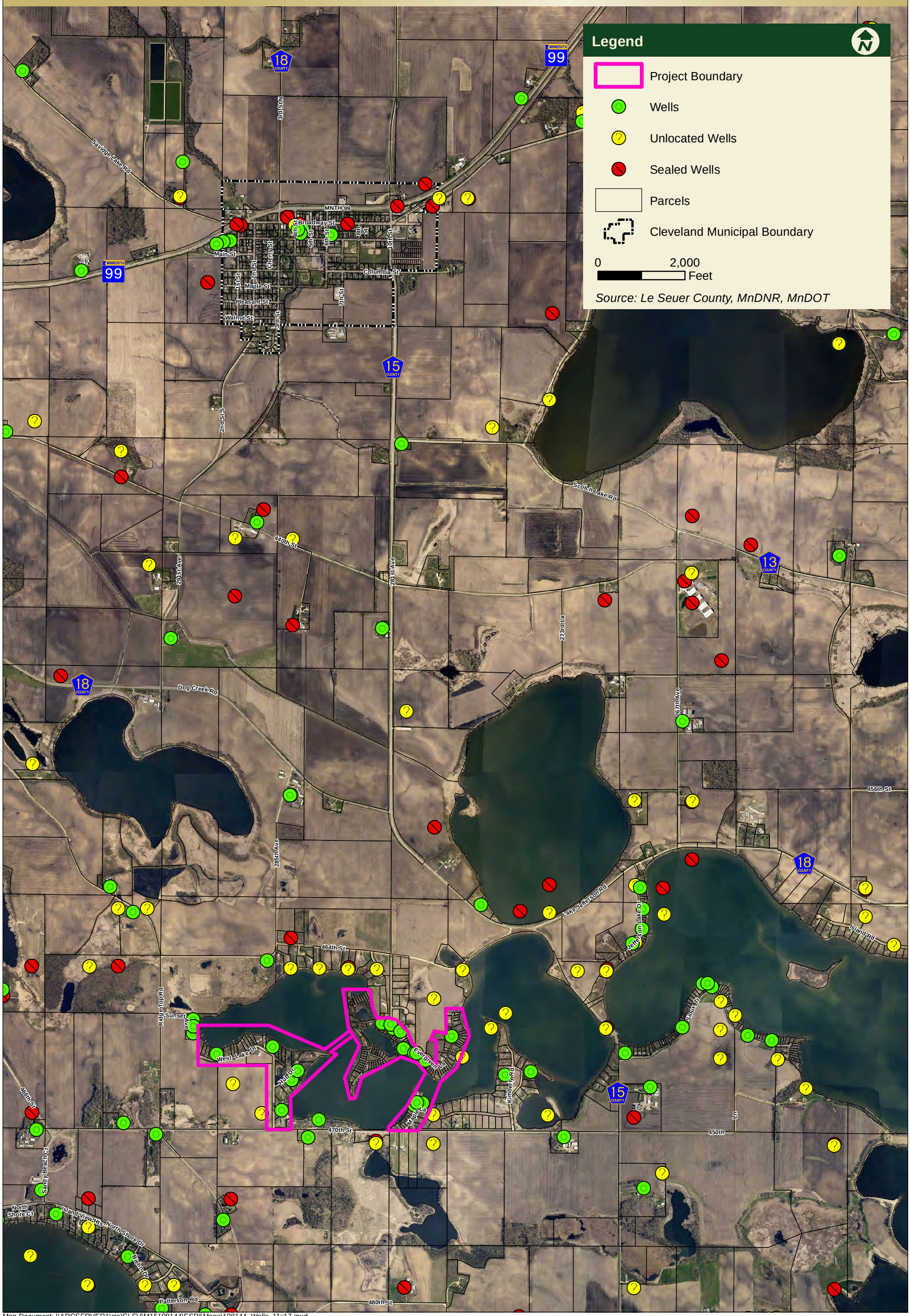
West Jefferson Connection Study

City of Cleveland

Map 11 - Wells

February, 2016



Map Document: \\ARCSERVER1\gis\CLEV\M15108144\ESRI\Maps\108144_Wells_11x17.mxd
Date Saved: 2/19/2016 9:23:59 AM

Austin Jenkins

From: Thomas Cinadr <thomas.cinadr@mnhs.org>
Sent: Tuesday, February 09, 2016 1:53 PM
To: Austin Jenkins
Subject: Re: Database Search
Attachments: Archaeology.rtf

THIS EMAIL IS NOT A PROJECT CLEARANCE.

This message simply reports the results of the cultural resources database search you requested. The database search produced results for only previously known archaeological sites and historic properties. Please read the note below carefully.

No historic structures were identified in a search of the Minnesota Archaeological Inventory and Historic Structures Inventory for the search area requested. **A report containing the archaeological sites identified is attached.**

The result of this database search provides a listing of recorded archaeological sites and historic architectural properties that are included in the current SHPO databases. Because the majority of archaeological sites in the state and many historic architectural properties have not been recorded, important sites or structures may exist within the search area and may be affected by development projects within that area. Additional research, including field survey, may be necessary to adequately assess the area's potential to contain historic properties.

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. The following codes on the reports you received are:

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

CEF – Certified Eligible to the National Register findings are usually made during the federal review process, these properties have been evaluated as being eligible for listing in the National Register.

SEF – Staff eligible findings to the National Register are properties that have been determined eligible by SHPO staff.
DOE – Determination of Eligibility is made by the National Park Service and typically refers to properties deemed eligible but the owner objects to the listing.

CNEF – Certified Not Eligible to the National Register. SHPO has begun to record properties that have been evaluated as **not eligible** for listing in the National Register. If the box on the form has a check the property has been determined to be **not eligible.**

Properties without **NR, CEF, SEF, DOE, or CNEF** designations in the reports you received may not have been evaluated and therefore no assumption to their eligibility can be made.

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 in Review and Compliance @ 651-259-3455 or by email at kelly.graggjohnson@mnhs.org.

The Minnesota SHPO Survey Manuals and Database Metadata can be found at http://www.mnhs.org/shpo/survey/inventories.htm
SHPO research hours are 8:30 AM – 4:00 PM Tuesday-Friday.

The Office is closed on Mondays.

Tom Cinadr
Survey and Information Management Coordinator
Minnesota Historic Preservation Office
Minnesota Historical Society
345 Kellogg Blvd. West
St. Paul, MN 55102

651-259-3453

On Tue, Feb 9, 2016 at 1:28 PM, Austin Jenkins <austinje@bolton-menk.com> wrote:

> Tom,
>
> Could you please search the database for properties located in the sections included in the attached spreadsheet and return an RTF?
>
> Thanks,
>
> **Austin Jenkins**
>
> Cultural Resources Planner
>
> **Bolton & Menk, Inc.**
>
> **Consulting Engineers & Surveyors**
>
> 12224 Nicollet Ave
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>
> email: austinje@bolton-menk.com

Archaeological Site Locations

Site Number	Site Name	Twp.	Range	Sec.	Quarter Sections	Acres	Phase	Site Description	Tradition	Context	Reports	NR	CEF	DOE
County:	**Le Sueur**													
21LE0025		109	25	4	C-W-SE	6	1	LS	A-1					
21LE0026		110	25	35	S-SE-SE-SE	3	1	LS						
County:	**LeSueur**													
21LE0101	Kluntz Island	109	25	2	N-SE-NE	5	1	AS	W-1	LB-2				
21LE0130	Biehn 1	109	25	9	SE-SE-NE-NW	0.1	1	SA						
21LE0131	Biehn 2	109	25	9	NE-NE-NW	0.4	1	LS						
21LE0132	Biehn 3	109	25	4	E-SE-SE-SW	0.4	1	LS						
21LE0133	Biehn 4	109	25	4	S-SE-NE-SW	2.6	1	LS						
	Biehn 4	109	25	4	NE-SE-SW	2.6	1	LS						
21LE0134	Biehn 5	109	25	4	NW-NW-SE-SW	0.1	1	SA						

Minnesota Unique Well Number

119674

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 04/11/1988
Update Date
Received Date 02/14/2014

Well Name	Township	Range	Dir	Section	Subsection
LINGREEN, BILL	109	25	W	3	CBCADB

Elevation 1050 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact RR 2 FORT DODGE IA

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	20	YELLOW	MEDIUM
SAND & GRAVEL	20	165	BROWN	MEDIUM
CLAY	165	180	BLUE	MEDIUM
SAND	180	203	BROWN	MEDIUM
CLAY	203	203	BLUE	MEDIUM

Remarks

Well Depth 203 ft. **Depth Completed** 203 ft. **Date Well Completed** 04/25/1977

Drill Method Multiple methods used **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Threaded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 1 ft.

Casing Diameter **Weight**
5 in. To 198 ft. 15 lbs./ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** stainless **Make** SMITH

Diameter	Slot/Gauze	Length	Set	
4.8 in.	15	7 ft.	198 ft.	203 ft.

Static Water Level
135 ft. Land surface Measure 04/25/1977

Pumping Level (below land surface)
136 ft. 1 hrs. Pumping at 10 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
Bentonite		0 ft.	185 ft.

Nearest Known Source of Contamination
75 feet West Direction Septic tank/drain field Type
Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 04/29/1977
Manufacturer's name AERMOTOR
Model Number HP 0.75 Volt 220
Length of drop pipe 160 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 Digitized - scale 1:24,000 or larger (Digitizing Table)
System UTM - Mad83, Zone 15, Meters X 434059 Y 4902543
Unique Number Verification Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor

Licensee Business	Lic. or Reg. No.	Name of Driller
Hartmann Well Co.	40174	STICHA, D.

Minnesota Unique Well Number

119694

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 04/11/1988
Update Date
Received Date 02/14/2014

Well Name	Township	Range	Dir	Section	Subsection
ROHLFING, BOB	109	25	W	3	CCCAAA

Elevation 1051 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact CLEVELAND MN

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	32	YELLOW	SOFT
CLAY	32	80	BLUE	SOFT
SAND	80	151	GRAY	SOFT

Remarks
WILDWOOD ADD. TOMAHAWK POINT LOT 13.

Well Depth 151 ft. **Depth Completed** 151 ft. **Date Well Completed** 06/01/1978

Drill Method Non-specified Rotary **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Threaded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 1 ft.

Casing Diameter		Weight	
4	in. To 146 ft.	11	lbs./ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** stainless **Make** JOHNSON

Diameter	Slot/Gauze	Length	Set	
3.8 in.	10	7 ft.	146 ft.	151 ft.

Static Water Level
115 ft. Land surface Measure 06/01/1978

Pumping Level (below land surface)
117 ft. 1 hrs. Pumping at 10 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
Cuttings		0 ft.	140 ft.

Nearest Known Source of Contamination
75 feet Southwes Direction Septic tank/drain field 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 Quat. Buried
Last Strat sand-gray Depth to Bedrock ft
Located by Minnesota Geological Survey
Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)
System UTM - Mad83, Zone 15, Meters X 434060 Y 4902195
Unique Number Verification Other, note in Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor

Hartmann Well Co.	40174	HARTMANN, R.
Licensee Business	Lic. or Reg. No.	Name of Driller

Minnesota Unique Well Number

119730

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 04/11/1988
Update Date
Received Date 02/14/2014

Well Name	Township	Range	Dir	Section	Subsection
THOMSEN, NICK	109	25	W	3	CCDBB

Elevation 1050 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact BOX 175 LAKOTA IA 50451

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	18	YELLOW	SOFT
SANDY CLAY	18	83	BLUE	SOFT
SAND	83	160	GRAY	SOFT

Remarks

WILDWOOD ADD. LOT 22.

Well Depth 160 ft. **Depth Completed** 160 ft. **Date Well Completed** 08/07/1979

Drill Method Multiple methods used **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Threaded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 1 ft.

Casing Diameter		Weight	
4	in. To 155 ft.	11	lbs./ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** stainless **Make** JOHNSON

Diameter	Slot/Gauze	Length	Set	
3.8 in.	10	7 ft.	155 ft.	160 ft.

Static Water Level

123 ft. Land surface Measure 08/07/1979

Pumping Level (below land surface)

ft. hrs. Pumping at 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
Cuttings		0 ft.	140 ft.

Nearest Known Source of Contamination

60 feet West Direction Septic tank/drain field Type

Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed

Manufacturer's name

Model Number HP 1 Volt 220

Length of drop pipe 142 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 sand-gray Depth to Bedrock ft

Located by Minnesota Geological Survey

Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)

System UTM - Mad83, Zone 15, Meters X 434101 Y 4902192

Unique Number Verification Other, note in Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor

Hartmann Well Co.	40174	HARTMANN, R.
Licensee Business	Lic. or Reg. No.	Name of Driller

Minnesota Unique Well Number

160388

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 04/11/1988
Update Date
Received Date 02/14/2014

Well Name	Township	Range	Dir	Section	Subsection
MILLER, RICH	109	25	W	4	DAAACA

Elevation 1061 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact RFD MADISON LAKE MN

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
DIRT	0	2	BLACK	SOFT
CLAY	2	25	YELLOW	SOFT
SAND	25	206	BROWN	SOFT

Remarks

TOMAHAWK POINT.

Well Depth	Depth Completed	Date Well Completed
206 ft.	206 ft.	08/11/1981

Drill Method Non-specified Rotary **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint**
Drive Shoe? Yes ☒ No ☐ **Above/Below** 1 ft.

Casing Diameter	Weight	Hole Diameter
5 in. To 201 ft.	15 lbs./ft.	8 in. To 206 ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** stainless **Make** JOHNSON

Diameter	Slot/Gauze	Length	Set	
5 in.	18	7 ft.	201 ft.	206 ft.

Static Water Level

150 ft. Land surface Measure 08/11/1981

Pumping Level (below land surface)

0 ft. hrs. Pumping at 30 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
	1.5 Cubic yards	0 ft.	25 ft.

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 10/30/1981

Manufacturer's name FLINT + WALLING

Model Number 7BA12 HP 0.75 Volt 230

Length of drop pipe 180 ft Capacity 10 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-brown Depth to Bedrock ft

Located by Minnesota Geological Survey

Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)

System UTM - Mad83, Zone 15, Meters X 433819 Y 4902750

Unique Number Verification Other, note in Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor

St. Peter Well Drilling	08072	VOLK, J.
Licensee Business	Lic. or Reg. No.	Name of Driller

Minnesota Unique Well Number

188649

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 05/30/1991
Update Date
Received Date 02/14/2014

Well Name	Township	Range	Dir	Section	Subsection
STRAND, D. R.	109	25	W	3	CBCADB

Elevation 1055 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact RR 1 MADISON LAKE MN

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
DIRT	0	2	BLACK	SOFT
CLAY	2	18	YELLOW	SOFT
SAND	18	186	BROWN	SOFT
CLAY	186	230	BLUE	SOFT
SAND	230	241	BROWN	SOFT

Remarks

Well Depth 241 ft. **Depth Completed** 241 ft. **Date Well Completed** 11/05/1985

Drill Method Non-specified Rotary **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint**
Drive Shoe? Yes ☐ No ☒ **Above/Below** 1 ft.

Casing Diameter	Weight	Hole Diameter
5 in. To 235 ft.	lbs./ft.	9 in. To 241 ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** stainless **Make** JOHNSON

Diameter	Slot/Gauze	Length	Set	
5 in.	30	7.5 ft.	235 ft.	241 ft.

Static Water Level
130 ft. Land surface Measure 11/04/1985

Pumping Level (below land surface)
0 ft. hrs. Pumping at 50 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
Neat Cement	1 Cubic yards	0 ft.	39 ft.

Nearest Known Source of Contamination
55 feet Northwes Direction Septic tank/drain field Type
Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 11/07/1985
Manufacturer's name FLINT + WALLING
Model Number 7BA12 HP 0.75 Volt 230
Length of drop pipe 147 ft Capacity 10 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-brown Depth to Bedrock ft
Located by Minnesota Geological Survey
Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)
System UTM - Mad83, Zone 15, Meters X 434043 Y 4902541
Unique Number Verification Name on mailbox Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor

Licensee Business	Lic. or Reg. No.	Name of Driller
St. Peter Well Drilling	08072	VOLK, J.

Minnesota Unique Well Number

190621

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 04/11/1988
Update Date
Received Date 06/02/2014

Well Name	Township	Range	Dir	Section	Subsection
KLIEWER, ERNIE	109	25	W	3	CBBCBB

Elevation 1055 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact RR 1 CLEVELAND MN

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
DIRT	0	2	BLACK	SOFT
CLAY	2	20	YELLOW	SOFT
SAND & ROCKS	20	160	BROWN	SOFT
SAND & ROCKS	160	180	BROWN	
SAND	180	208	BROWN	SOFT

Remarks

Well Depth 208 ft. **Depth Completed** 208 ft. **Date Well Completed** 05/22/1984

Drill Method Non-specified Rotary **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Threaded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 1 ft.

Casing Diameter	Weight	Hole Diameter
5 in. To 203 ft.	15 lbs./ft.	9 in. To 203 ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** stainless **Make** JOHNSON

Diameter	Slot/Gauze	Length	Set	
5 in.	25	7 ft.	203 ft.	208 ft.

Static Water Level

150 ft. Land surface Measure 05/22/1984

Pumping Level (below land surface)

0 ft. hrs. Pumping at 25 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

Nearest Known Source of Contamination

150 feet Southwes Direction Septic tank/drain field Type
Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 05/24/1984
Manufacturer's name FAIRBANKS MOORSE
Model Number 3D7512 HP 0.75 Volt 230
Length of drop pipe 180 ft Capacity 10 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-brown Depth to Bedrock ft
Located by Minnesota Geological Survey
Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)
System UTM - Mad83, Zone 15, Meters X 433895 Y 4902711
Unique Number Verification Other, note in Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor

St. Peter Well Drilling	08072	VOLK, J.
Licensee Business	Lic. or Reg. No.	Name of Driller

Minnesota Unique Well Number

218436

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 04/11/1988
Update Date
Received Date 02/14/2014

Well Name	Township	Range	Dir	Section	Subsection
LARSON,	109	25	W	3	CCCADB

Elevation 1050 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
DRIFT (CLAY)	0	100		
FINE SAND	100	163		

Remarks

Well Depth	Depth Completed	Date Well Completed
163 ft.	163 ft.	06/13/1972

Drill Method **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below** 0 ft.

Casing Diameter	Weight
4 in. To ft.	lbs./ft.

Open Hole From ft. To ft.

Screen? ☒

Type	Make	Diameter	Slot/Gauze	Length	Set
		2 in.	10	5.5 ft.	0 ft. ft.

Static Water Level
112 ft. Land surface Measure 06/13/1972

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

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 0.75 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 sand Depth to Bedrock ft
Located by Minnesota Geological Survey
Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)
System UTM - Mad83, Zone 15, Meters X 434044 Y 4902174
Unique Number Verification Other, note in Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

218438

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 04/11/1988
Update Date
Received Date 07/24/2002

Well Name	Township	Range	Dir	Section	Subsection
LAHUE, CHUCK	109	25	W	4	DAAADA

Elevation 1060 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	213		
SAND	213	230		

Remarks
TOMAHAWK POINT LOTS 16-17.

Well Depth	Depth Completed	Date Well Completed
230 ft.	230 ft.	10/15/1974

Drill Method **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below** 0 ft.

Casing Diameter	Weight
5 in. To 225 ft.	lbs./ft.

Open Hole From ft. To ft.

Screen?	Type	Make			
Diameter	Slot/Gauze	Length		Set	
5 in.	18	5 ft.		0 ft.	ft.

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

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 0.75 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 sand Depth to Bedrock ft
Located by Minnesota Geological Survey
Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)
System UTM - Mad83, Zone 15, Meters X 433877 Y 4902740
Unique Number Verification Other, note in Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

218440

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 04/11/1988
Update Date
Received Date 02/14/2014

Well Name	Township	Range	Dir	Section	Subsection
WITTICK,	109	25	W	4	CACBCC

Elevation 1035 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
DRIFT (CLAY)	0	223		
COARSE SAND	223	232		
SAND	232	232		

Remarks
BIEHN'S W. JEFFERSON ADD. LOT 18.

Well Depth	Depth Completed	Date Well Completed
232 ft.	232 ft.	08/25/1975

Drill Method **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below** 0 ft.

Casing Diameter		Weight
4	in. To 224 ft.	lbs./ft.

Open Hole From ft. To ft.

Screen?	Type	Make			
Diameter	Slot/Gauze	Length		Set	
4 in.	15	5	ft.	0 ft.	ft.

Static Water Level
138 ft. Land surface Measure 08/25/1975

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

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 0.75 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 sand Depth to Bedrock ft
Located by Minnesota Geological Survey
Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)
System UTM - Mad83, Zone 15, Meters X 432658 Y 4902537
Unique Number Verification Other, note in Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

218441

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 04/11/1988
Update Date
Received Date 05/22/2014

Well Name	Township	Range	Dir	Section	Subsection
WEST, BUSTER	109	25	W	3	CBBCAB

Elevation 1065 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact LOT 10 TOMAHAWK PT CLEVELAND MN

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
DRIFT (CLAY)	0	40		
COARSE SAND	40	60		
CLAY	60	70		
COARSE SAND	70	95		
CLAY	95	215		
SAND	215	220		
COARSE SAND	220	225		
NICE SAND	225	225		

Remarks

TOMAHAWK PT. LOT 10.

Well Depth 225 ft. **Depth Completed** 225 ft. **Date Well Completed** 00/00/1975

Drill Method **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint**

Drive Shoe? Yes ☐ No ☐ **Above/Below** 0 ft.

Casing Diameter **Weight**

5 in. To ft. lbs./ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** **Make**

Diameter	Slot/Gauze	Length	Set
0 in.	18	5.5 ft.	0 ft. ft.

Static Water Level

149 ft. Land surface Measure 00/00/1975

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

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 1 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 sand Depth to Bedrock ft

Located by Minnesota Geological Survey

Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)

System UTM - Mad83, Zone 15, Meters X 433947 Y 4902692

Unique Number Verification Other, note in Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

404663

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 04/11/1988
Update Date
Received Date 02/14/2014

Well Name	Township	Range	Dir	Section	Subsection
LA TOUR,	109	25	W	3	CBCABC

Elevation 1050 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact 322 3 ST E SHAKOPEE MN

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	20	YELLOW	MEDIUM
SAND	20	170	BROWN	MEDIUM
CLAY	170	191	BLUE	MEDIUM
SAND	191	202	BROWN	MEDIUM

Remarks

TOMAHAWK PT. LOT 5.

Well Depth	Depth Completed	Date Well Completed
202 ft.	202 ft.	06/06/1984

Drill Method Non-specified Rotary **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Threaded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 1 ft.

Casing Diameter	Weight	Hole Diameter
4 in. To 197 ft.	11 lbs./ft.	6 in. To 193 ft.
		4 in. To 202 ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** stainless **Make** JOHNSON

Diameter	Slot/Gauze	Length	Set	
3.8 in.	15	7 ft.	197 ft.	202 ft.

Static Water Level

130 ft. Land surface Measure 06/06/1984

Pumping Level (below land surface)

ft. hrs. Pumping at g.p.m.

Wellhead Completion

Pitless adapter manufacturer WHITEWATER 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
Cuttings		0 ft.	193 ft.

Nearest Known Source of Contamination

60 feet South Direction Septic tank/drain field Type
Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 06/08/1984
Manufacturer's name AERMOTOR
Model Number A1275 HP 0.75 Volt 220
Length of drop pipe 162 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 sand-brown Depth to Bedrock ft
Located by Minnesota Geological Survey
Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)
System UTM - Mad83, Zone 15, Meters X 433966 Y 4902573
Unique Number Verification Other, note in Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor

Hartmann Well Co.	40174	JAECHELS, R.
Licensee Business	Lic. or Reg. No.	Name of Driller

Minnesota Unique Well Number

413850

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 05/30/1991
Update Date
Received Date 06/02/2014

Well Name	Township	Range	Dir	Section	Subsection
ROBINSON,	109	25	W	3	CABCCB

Elevation 1049 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact CLEVELAND MN

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	24	YELLOW	MEDIUM
SAND	24	180	YELLOW	MEDIUM
CLAY & SAND	180	241	GRAY	MEDIUM
CLAY	241	246	GRAY	MEDIUM
SAND	246	252	GRAY	MEDIUM

Remarks

Well Depth 252 ft. **Depth Completed** 252 ft. **Date Well Completed** 04/00/1987

Drill Method Non-specified Rotary **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Threaded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 1 ft.

Casing Diameter	Weight	Hole Diameter
4 in. To 248 ft.	11 lbs./ft.	6.2 in. To 241 ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** stainless **Make** JOHNSON

Diameter	Slot/Gauze	Length	Set	
2 in.	15	4 ft.	248 ft.	252 ft.

Static Water Level

132 ft. Land surface Measure 04/00/1987

Pumping Level (below land surface)

145 ft. 1 hrs. Pumping at 20 g.p.m.

Wellhead Completion

Pitless adapter manufacturer MONITOR Model 6PC56
☐ 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.	ft.

Nearest Known Source of Contamination

135 feet Southwes Direction Septic tank/drain field Type
Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed
Manufacturer's name MEYERS
Model Number J711 HP 0.75 Volt 220
Length of drop pipe 180 ft Capacity 15 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)
System UTM - Mad83, Zone 15, Meters X 434303 Y 4902658
Unique Number Verification Other, note in Inpute Date 06/02/2000

Angled Drill Hole

Well Contractor

Geib Well Co.	72027	GEIB, S.
Licensee Business	Lic. or Reg. No.	Name of Driller

Minnesota Unique Well Number

423368

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 05/30/1991
Update Date
Received Date 02/14/2014

Well Name	Township	Range	Dir Section	Subsection
BLAIS, STEVE	109	25	W 4	CADADB

Elevation 1037 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact 201 BOX 263 CLEVELAND MN 56017

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
DIRT	0	1	BLACK	SOFT
CLAY	1	40	YELLOW	SOFT
GRAVEL	40	120	YELLOW	SOFT
SAND	120	165	BROWN	SOFT
CLAY	165	185	BLUE	SOFT
SAND	185	208	BROWN	
CLAY	208	230	BLUE	
SAND	230	235	BROWN	SOFT

Remarks

Well Depth 235 ft. **Depth Completed** 235 ft. **Date Well Completed** 08/23/1986

Drill Method Non-specified Rotary **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint**
Drive Shoe? Yes ☐ No ☒ **Above/Below** 1 ft.

Casing Diameter	Weight	Hole Diameter
5 in. To 230 ft.	lbs./ft.	9 in. To 235 ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** stainless **Make** JOHNSON

Diameter	Slot/Gauze	Length	Set	
5 in.	30	7.3 ft.	230 ft.	235 ft.

Static Water Level
140 ft. Land surface Measure 08/23/1986

Pumping Level (below land surface)
0 ft. hrs. Pumping at 80 g.p.m.

Wellhead Completion
Pitless adapter manufacturer WHITEWATER 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
Neat Cement	1.25 Cubic yards	0 ft.	35 ft.

Nearest Known Source of Contamination
70 feet East Direction Septic tank/drain field Type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed 10/24/1986
Manufacturer's name FLINT + WALLING
Model Number 4F10B07 HP 0.75 Volt 230
Length of drop pipe 180 ft Capacity 10 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-brown Depth to Bedrock ft
Located by Minnesota Geological Survey
Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)
System UTM - Mad83, Zone 15, Meters X 433051 Y 4902586
Unique Number Verification Other, note in Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor

Licensee Business	Lic. or Reg. No.	Name of Driller
Searles Well Co.	08258	VOLK, J.

Minnesota Unique Well Number

433337

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 03/15/1990
Update Date
Received Date 06/02/2014

Well Name	Township	Range	Dir	Section	Subsection
HICKS, FRED	109	25	W	3	CBDCBA

Elevation 1044 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact 420 CARROLL NE SLEEPY EYE MN

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
DIRT	0	2	BLACK	SOFT
CLAY	2	10	YELLOW	SOFT
FINE SAND	10	40	BROWN	SOFT
COARSE SAND	40	160	BROWN	SOFT
CLAY	160	220	BLUE	SOFT
CLAY & SAND	220	260	BLU/BRN	SOFT
SHALE	260	261	GREEN	SOFT
SHALE	261	280	YELLOW	SOFT
SHALE & SAND	280	305	YELLOW	SOFT
LIMESTONE	305	315	PINK	HARD

Remarks

Well Depth 315 ft. **Depth Completed** 315 ft. **Date Well Completed** 07/28/1987

Drill Method Non-specified Rotary **Drill Fluid** Bentonite

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Threaded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 2 ft.

Casing Diameter 5 in. To 305 ft. **Weight** 15 lbs./ft. **Hole Diameter** 8.8 in. To 305 ft.

Open Hole From 305 ft. To 315 ft.

Screen? ☐ **Type** **Make**

Static Water Level
150 ft. Land surface Measure 07/28/1987

Pumping Level (below land surface)
0 ft. hrs. Pumping at 80 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

Nearest Known Source of Contamination
55 feet East Direction Septic tank/drain field Type
Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 07/31/1987
Manufacturer's name AERMOTOR
Model Number A12B75 HP 0.75 Volt 230
Length of drop pipe 180 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 Cretaceous undiff. Aquifer Prairie Du Chien
Last Strat Prairie Du Chien Group Depth to Bedrock 260 ft
Located by Minnesota Geological Survey
Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)
System UTM - Mad83, Zone 15, Meters X 434121 Y 4902489
Unique Number Verification Other, note in Inpute Date 01/01/1990

Angled Drill Hole

Well Contractor

Licensee Business	Lic. or Reg. No.	Name of Driller
Searles Well Co.	08258	VOLK, J.

Minnesota Unique Well Number

504556

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 01/18/1991
Update Date
Received Date 02/14/2014

Well Name	Township	Range	Dir Section	Subsection
BIEHN, HUB	109	25	W 4	DCCBC

Elevation 1029 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

C/W RR 1 MADISON LAKE MN

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SOIL	0	1	BLACK	SOFT
CLAY	1	25	YELLOW	SOFT
CLAY	25	100	BLUE	SOFT
CLAY & SAND	100	195	BLU/BRN	SOFT
SAND	195	207	BROWN	SOFT

Remarks

LOCATION METHOD: SAW WELL D. D.

Well Depth	Depth Completed	Date Well Completed
207 ft.	207 ft.	06/13/1989

Drill Method Non-specified Rotary **Drill Fluid** Water

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint**
Drive Shoe? Yes ☐ No ☒ **Above/Below** 1 ft.

Casing Diameter	Weight	Hole Diameter
4 in. To 202 ft.	lbs./ft.	8 in. To 207 ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** stainless **Make** JOHNSON

Diameter	Slot/Gauze	Length	Set
in.	15	7.5 ft.	202 ft. 207 ft.

Static Water Level

130 ft. Land surface Measure 06/13/1989

Pumping Level (below land surface)

ft. hrs. Pumping at 20 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
Neat Cement	1 Cubic yards	0 ft.	30 ft.

Nearest Known Source of Contamination

70 feet North Direction Septic tank/drain field Type
Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 06/21/1989
Manufacturer's name AERMOTOR
Model Number A12B75 HP 0.75 Volt 230
Length of drop pipe 162 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 sand-brown Depth to Bedrock ft
Located by Minnesota Geological Survey
Locate Method Digitization (Screen) - Map (1:24,000)
System UTM - Mad83, Zone 15, Meters X 433113 Y 4902144
Unique Number Verification Other, note in Inpute Date 11/25/2002

Angled Drill Hole

Well Contractor

Searles Well Co. 08258 VOLK, J.
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

592759

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 06/29/1999
Update Date
Received Date 03/10/2014

Well Name	Township	Range	Dir	Section	Subsection
	109	25	W	4	DCBACB

Elevation 1046 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact 208 FOURTH ST CLEVELAND MN 56017
Well 28637 HUB DR MADISON LAKE MN 56063

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SOIL	0	3	BLACK	SOFT
SAND	3	180	BROWN	SOFT
CLAY & SAND	180	210	BLU/BRN	SOFT
CLAY	210	290	BLUE	
SAND & CLAY	290	352	BLUE	SOFT
LIMESTONE	352	364	PINK	HARD

Remarks

Well Depth 364 ft. **Depth Completed** 364 ft. **Date Well Completed** 06/16/1997

Drill Method Non-specified Rotary **Drill Fluid** Bentonite

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Threaded
Drive Shoe? Yes ☒ No ☐ **Above/Below**

Casing Diameter	Weight	Hole Diameter
5 in. To 360 ft.	15 lbs./ft.	8.8 in. To 360 ft.
		5 in. To 364 ft.

Open Hole From 360 ft. To 364 ft.

Screen? ☐ **Type** **Make**

Static Water Level
162 ft. Land surface Measure 06/16/1997

Pumping Level (below land surface)
ft. hrs. Pumping at 30 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	14 Sacks	0 ft.	168 ft.
Cuttings		168 ft.	360 ft.

Nearest Known Source of Contamination
50 feet East Direction Body of water 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 Prairie Du Chien Group Aquifer Prairie Du Chien
Last Strat Prairie Du Chien Group Depth to Bedrock 352 ft
Located by Minnesota Geological Survey
Locate Method Digitization (Screen) - Map (1:24,000)
System UTM - Mad83, Zone 15, Meters X 433185 Y 4902354
Unique Number Verification Tag on well Inpute Date 11/25/2002

Angled Drill Hole

Well Contractor
Searles Well Co. 08258 SCHAEFER, J.
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

592760

County Le Sueur
Quad Cleveland
Quad ID 74D

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

Entry Date 06/23/1999
Update Date
Received Date 03/10/2014

Well Name	Township	Range	Dir	Section	Subsection
	109	25	W	4	DBCDDC

Elevation 1065 **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact 208 FOURTH ST CLEVELAND MN 56017
Well 28613 HUB DR MADISON LAKE MN 56063

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
DIRT	0	3	BLACK	SOFT
SAND	3	180	BROWN	SOFT
CLAY & SAND	180	230	BLU/BRN	SOFT
JUNK	230	256		
LIMESTONE	256	401	PINK	HARD

Remarks
BEIHN'S SOUTHVIEW SUBD. LOT 8.

Well Depth 401 ft. **Depth Completed** 401 ft. **Date Well Completed** 06/11/1997
Drill Method Non-specified Rotary **Drill Fluid** Bentonite

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Threaded
Drive Shoe? Yes ☒ No ☐ **Above/Below**

Casing Diameter	Weight	Hole Diameter
5 in. To 356 ft.	15 lbs./ft.	9 in. To 356 ft.
		5 in. To 401 ft.

Open Hole From 356 ft. To 401 ft.
Screen? ☐ **Type** **Make**

Static Water Level
170 ft. Land surface Measure 06/11/1997

Pumping Level (below land surface)
ft. hrs. Pumping at 50 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	16 Sacks	0 ft.	215 ft.
Cuttings		215 ft.	356 ft.

Nearest Known Source of Contamination
50 feet East Direction Body of water 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 Prairie Du Chien Group Aquifer Prairie Du Chien
Last Strat Prairie Du Chien Group Depth to Bedrock 256 ft
Located by Minnesota Geological Survey
Locate Method Digitization (Screen) - Map (1:24,000)
System UTM - Mad83, Zone 15, Meters X 433225 Y 4902417
Unique Number Verification Tag on well Inpute Date 11/25/2002

Angled Drill Hole

Well Contractor
Searles Well Co. 08258 SCHAEFER, J.
Licensee Business Lic. or Reg. No. Name of Driller

Appendix B-1: Facility Plan Public Meeting Agenda and PowerPoint Presentation

BOLTON & MENK, INC.
Consulting Engineers & Surveyors
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Public Meeting Agenda

Wastewater Facility Plan for West Jefferson Lake
LeSueur County, MN

Meeting Agenda:

1. Introduction

2. Purpose of Meeting

3. Project Description
    a. Proposed Service Area
    b. Pressure Sewer Collection System Alternative
        i. Pipe Main System Layout
        ii. Service Laterals & Grinder Pumps
    c. Gravity/Pressure Sewer Collection System Alternative
        i. Mainline System Layout
    d. Trunk Forcemain Connection to the City of Cleveland

4. Estimated Project Costs
    a. Alternative Construction Cost Analysis
    b. Operation, Maintenance, & Replacement Cost Analysis

5. Project Funding Sources

6. Draft Implementation Schedule

7. Public Comments and Questions

Wastewater Facility Plan
West Lake Jefferson

Le Sueur County, Minnesota

Presented by
Bolton & Menk, Inc.
May 17th, 2016

Items to be Presented

- Introduction
- Purpose of the Meeting
- Project Description/Evaluation
- Estimated Project Costs
- Potential Project Funding Sources
- Draft Implementation Schedule
- Public Comments and Questions

Purpose of the Meeting

- Provide technical and financial information regarding the wastewater collection feasibility study tot the public
- Receive input from the public

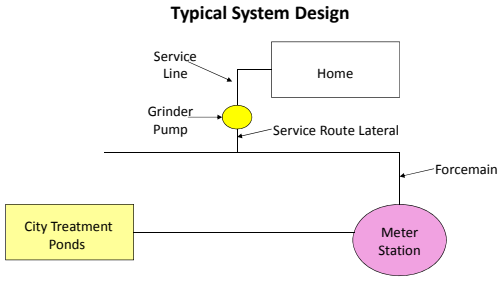
Project Description

- Proposed Service Area
  - Tomahawk Point, Evergreen Lane, Maple Lane & West Lake Drive (existing developed/developable properties)
- Treatment
  - Wastewater to be routed to the City of Cleveland
- Wastewater Collection System
  - Options Evaluated
    - On-Site Treatment Systems
    - Localized Cluster Systems
    - Regionalization to City of Cleveland
      - Pressure Collection System vs. Gravity Collection System

Pressure Sewer Collection System - Option

- Trunk Collection
  - Main forcemains for transporting the wastewater
- Service Laterals & Grinder Pump Stations
  - Lateral pipelines along with grinder pump station for each service

Typical System Design



Preliminary Pressure Sewer System

Trunk Collection System

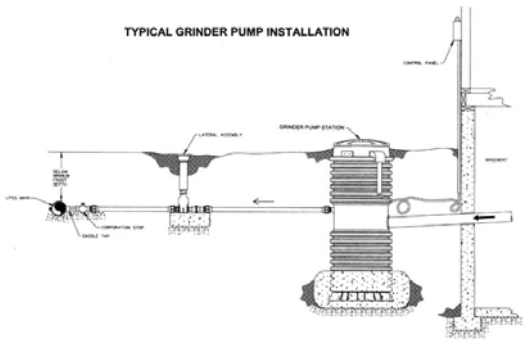
- Approximately 31,000-feet of 3-inch to 4-inch pressure sewer pipe (forcemain)
- Sewer pipes located in the County, Township & City roadway right-of-ways
  - Minimize the private easements
- Directional boring construction method will bed used as much as possible
  - Including under the Lake

Service Laterals & Grinder Pumps

- Connection of house to system included in the project
- 1 ¼" pressure sewer pipe laterals (100'/connection)
- Directional boring construction method will be used
- Grinder pumps installed and connected at each service
- Grinder pump station and service lateral will be owned and maintained by the District
- Provisions for future stubs included in the project (up to 140 connections)
- Metering for each service connection included in the project
- Septic tank pumping and abandonment included in the project

Directional Boring Equipment for Pipelines

Typical Grinder Pump Station



Typical Equipment Used for Grinder Pump Station Installation

Grinder Pump Station Installation

Electrical Control & Metering Device

Grinder Pump Station Installation with Black Dirt and Grading

Grinder Pump Station Final Installation

Typical Meter Station Installation

Gravity Sewer Collection System - Option

- Trunk Collection Lines
  - Main pipelines (forcemain and gravity line) for collecting and transporting
- Service Laterals
  - Gravity Service Laterals at achievable locations
  - Lateral pipelines along with grinder pump station for each service not able to be served by gravity

Preliminary Gravity Collection System

Evaluation of Collection System Alternatives

- Develop capital and annual operating cost estimates
- Estimates developments for 3 participation levels
  - 100% (140 connections)
  - 71% (100 connections)
  - 51% (72 connections)

Estimated Project Costs – Low Pressure Collection System

	Alternative		
	100%	**71%**	**51%**
Number of Connections	140	100	72
Trunk Line	$928,000	$928,000	$928,000
Service Lines/Grinders	$2,470,000	$1,795,000	$1,315,000
Lift Station/Metering Station	$150,000	$150,000	$150,000
Subtotal	**$3,548,000**	**$2,873,000**	**$2,393,000**
Contingencies (10%)	$355,000	$287,000	$239,000
Engineering/Legal/Admin/Fees	$564,000	$505,000	$451,000
Total Project Cost	**$4,468,000**	**$3,665,000**	**$3,083,000**
Cost/Connection	**$31,907**	**$36,650**	**$42,819**

Estimate Project Costs – Gravity/Low Pressure System

	Alternative		
	100%	**71%**	**51%**
Number of Connections	140	100	72
Trunk Line	$1,094,000	$1,094,000	$1,094,000
Services (gravity & grinder)	$2,070,000	$1,549,000	$1,200,000
Lift Station/Metering Station	$450,000	$450,000	$450,000
Subtotal	**$3,614,000**	**$3,093,000**	**$2,744,000**
Contingencies (10%)	$361,000	$309,000	$274,000
Engineering/Legal/Admin/Fees	$614,000	$555,000	$501,000
Total Project Cost	**$4,589,000**	**$3,957,000**	**$3,519,000**
Cost/Connection	**$32,779**	**$39,570**	**$48,875**

Estimated Project Annual Operation, Maintenance, Replacement, Billing & Administration Costs (O,M, & R)

O, M & R – Based on 140 Connections

- Wastewater Treatment $42,388
- Collection System Oper./Maint. $36,500
- Replacement Costs $14,000
- Billings & Administration $15,000

Total Annual Estimated O, M & R Costs $107,888

Estimated Monthly Charge $64
(Based on 140 Connections)

Project Funding Sources

- Public Facilities Authority (PFA) Funds
  - Low Interest and No Interest Loans
  - Wastewater Infrastructure Fund (WIF)
  - Project must qualify
  - PSIG Grant Funding List – October 2016
- Bonds
  - Subordinate sewer district/county
  - Bond payments responsibilities of sewer district properties

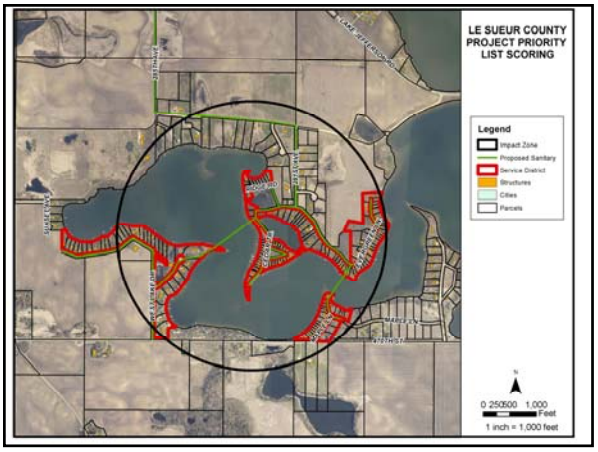
Project Assessment and User Rate Methodology

- Assessment
  - Trunk Line
  - Service Lateral and Grinder Pump Stations
  - Engineering, Administration and Legal
  - Term tied to the length of bonds/loans
  - Future Connections (up to 140 connections)
- Use Rates - TBD
  - Treatment Charges – City of Cleveland
  - Operation & Maintenance Cost

Draft Implementation Schedule

Item	Date
PSIG Grant List Released	October 2016
Assessment & Commitment Meetings	October-November 2016
Joint Power Agreement – County & Cleveland	November 2016
Project Design	Winter 2016-Spring 2017
Construction	Summer 2017-Summer 2018

Public Comments & Questions



Appendix B-2: Public Hearing Comments

Le Sueur County Board of Commissioners
88 S. Park Ave, Le Center, MN 56057
West Jefferson Facility Plan Public Hearing
May 17, 2016
10:00 a.m.

Comments and questions on Jason Femrite's West Jefferson Facility Plan presentation:

Board concerns:

1. Digging under the lake - The Board was assured that all permits would have to be in place (DNR, MPCA, etc.)
2. Easements – Easements are allowed on all public right of way and townships would sign off.
3. 140 hookups – County can decide the remainder of lake properties that can hook up if the 140 number isn't met. Commissioner Rohlfing suggested a sign-up cost to show commitment to the project.

Public Comments:

1. Stan Wills – Ready to move forward with the project.
2. Dale Wills – Appreciates the support shown by the Board, compliance deadline is a concern.
3. Pell Johnson – Supports clean water for the Cannon River Watershed.
4. Jean Lance – Wants to work together for a long term solution, supports the facility plan, and doesn't want the December 2017 deadline to be an issue.
5. Bill Hensel – Lives outside of the target circle and is wondering if Kimberly Lane will be considered for this project. Also had amortization cost questions.

Commissioner King stated that the December 2017 deadline will remain in place.

Appendix C: Le Sueur County Board of Commissioners Approved Resolution

On motion by Rohlfing, seconded by Connolly and unanimously approved, the Board approved to convene the West Jefferson Public Hearing at 10:00 a.m.

Jason Femrite, Bolton & Menk presented the West Jefferson Facility Plan and was available for questions.

There were 5 comments from the public.

On motion by Wetzel, seconded by Gliszinski and unanimously approved, the Board approved to close the West Jefferson Public Hearing at 10:35 a.m.

On motion by Wetzel, seconded by Rohlfing and unanimously approved, the Board approved the resolution to approve the West Jefferson Facility Plan.

STATE OF MINNESOTA
ss
COUNTY OF LE SUEUR

I, Darrell Pettis, County Administrator of said County of Le Sueur, do hereby certify that I have compared the foregoing copy with the original resolution as adopted by the County Board of said County at their meeting held on the 17th day of May 2016 and recorded in Commissioner Record Book now remaining on file and on record in my office and that the same is a correct transcript there from, and of the whole of such original.

Witness by hand and official seal this 1st day of June 2016.

Darrell Pettis
County Administrator by RK

Appendix D: Open House Community Meeting Summary

To those that could not attend the community meeting this is a summary of the meeting. May 10, 2016

To those that attended the community meeting this is a summary recap.

We had our community meeting on May 7th to provide information on the proposed voluntary sewer system. We had approximately 100 people attending which represented about 70 properties or 50% of the properties within the propose project area.

Dale started the meeting with a short explanation of when and how the proposed system got started along with a few key dates. How we identified the subdivision areas that most need another option (ie. pipe). Highlighted the Public Hearing to be conducted by Le Sueur County on May 17th at 10:00 AM. as a follow up requirement for the grant submittal process. He ended his part of the meeting by telling everyone that the project cost would be approximately **$32,000 to $33,000 per household before a possible grant** from the PCA based on the Engineers estimate.

Aaron Wills from the Cannon River Watershed then spoke about the grant process and that we are on the PSIG grant list and **if awarded would cover 50% of the project cost**. We will find out in late September if we get the grant. If we get the grant it would drop the cost to about $16,000 to $17,000 per connection and that we would need to start construction the summer of 2017 to keep the grant.

Jason Femrite of Bolton and Menk of Mankato (also Cleveland City Engineer) talked about the design options that were looked at to provide the best cost option for the people. This is best accomplished by using individual grinder pumps and trenchless construction methods. Lastly he emphasized that the **Facility Plan is a constantly evolving process** as the project discussions continue to get the best project for us and the best for the City of Cleveland.

I then covered the West Jefferson voluntary sewer information sheets and included extra information as needed throughout. Special information covered includes **Sewer access charge** - at this time in discussion stage with the City of Cleveland. **Mound removal** - can be left inplace, if you want removed you need to contact Michelle Mettler or Kathy Brockway from Le Sueur County environmental services. **Vacant Lots** - contact Le Sueur County to determine if they are buildable or not. **Monthly costs** - under discussions with the City of Cleveland. **Grinder pump** maintenance and maintenance of the entire system - met with Derek with Schwickert's of Mankato. They are currently providing maintenance services to the Lake Washington system. **Connection of grinder pump at a later date** - we will require use of maintenance contractor.

I then covered the project timeline, **May 17th 10:00 AM Public Hearing** - Please come to the Public Hearing to show the County Board support of the project. **October 1st** we will have commitment meeting. we will know if we get a grant at that time, we will have the SAC fee established and a monthly cost. Please come to the commitment meeting prepared to make an informed/educated decision by having talked to the County in relation to vacant lots buildable or not, the County's continuing inspection program, and if wanting to build or rebuild to determine the best location for the grinder pump. You will be given +/- 2-3 weeks to decide before we move to other areas within the density circle to get the 140 connections. The order of inviting in will be properties that currently have a residence, next platted lots, next developable property and lastly properties outside the density circle. We need to keep properties outside the density circle last because we need to preserve the 90% - 10% ratio so as not to jeopardize the potential grant. Lstly we need to have construction starting in late June to meet the requirements of the grant.

The meeting may be viewed on You tube at the following address https://youtu.be/bhKk3q6jP-Y Title is West Jefferson Voluntary Sewer Meeting

Reminder to help save postage costs please send me your e-mail address for future updates.

Stan Wills 507-995-4332 or wills@hickorytech.net

Dale Wills 507-317-5189 or dale-jo-lake@mchsi.com

Appendix E: MPCA Design Flow and Loading Determination

Design Flow and Loading Determination

Project Name: West Jefferson Lake
Location: West Jefferson Lake to Cleveland, Le Sueur County, MN
Completed By: D. Olinger (BMI) Date: 6/14/16

Table 2: Determination of Design Flows

A:	**For determination of peak hourly wet weather design flows (PHWW)**		(gpd)
1	Present peak hourly dry weather		43,500
2	Present Peak hourly flow during high ground water period (no runoff)		54,000
3	Present Peak hourly dry weather flow (same as 1)	-	43,500
4	Present Peak Infiltration	=	10,500
5	Present Peak Hourly flow during high ground water period and runoff point of greatest distance between Curves Y and Z		93,000
6	Present hourly flow during high ground water (no runoff) at same time of day as (5) measurement	-	80,000
7	Present peak hourly inflow	=	13,000
8	Present peak hourly inflow, adjusted for 5-year, 1-hour event		13,000
9	Present peak hourly infiltration (same as 4)		10,500
10	Peak hourly infiltration cost effective to eliminate	-	0
11	Peak Hourly infiltration after rehabilitation (where cost effective)	=	10,500
12	Present peak hourly adjusted inflow (same as 8)		13,000
13	Peak hourly inflow cost effective to eliminate	-	0
14	Peak hourly inlfow after rehabilitation (where cost effective)	=	13,000
15	Population increase 75 @ 90 gpcd times 2.5 (peaking factor)		16,875
16	Peak hourly flow from planned industrial increase		0
17	Estimated peak hourly flow from future unidentified industries		0
18	Peak Hourly flow from other future industries		40,131
19	Peak hourly wet weather flow [(1)+(11)+(14)+(15)+(16)+(17)+(18)]		124,006
B:	**For determination of peak instananious wet weather design flow (PIWW)**		
20	Peak hourly wet weather design flow (same as 19)		124,006
21	Present peak hourly inflow, adjusted for 5-year, 1-hour event (same as 8)		13,000
22	Present peak inflow adjusted for 25-year, 1-hour rainfall event		23,000
23	Peak instantaneous wet weather design flow		134,006
C:	**For determination of average dry weather design flow (ADW)**		
24	Present average dry weather flow		29,000
25	Population increase 75 @ 90 gpcd		6,750
26	Peak hourly flow from planned industrial increase		0
27	Estimated peak hourly flow from future unidentified industries		0
28	Peak Hourly flow from other future industries		30,870
29	Average dry weather design flow [(24)+(25)+(26)+(27)+(28)]	=	66,620
D:	**For determination of average wet weather design flow (30-day average for mechanical plants and 180-day average for controlled discharge ponds) (AWW)**		
30	Present average dry weather flow		29,000
31	Average infiltration after rehabiliation (where cost effective)	+	10,500
32	Average inflow after rehabilitation (where cost effective)	+	13,000
33	Population increase 75 @ 90 gpcd	+	6,750
34	Peak hourly flow from planned industrial increase	+	0
35	Estimated peak hourly flow from future unidentified industries	+	0
36	Peak Hourly flow from other future increases	+	30,870
37	Average wet weather design flow [(30)+(31)+(32)+(33)+(34)+(35)+(36)]	=	90,120
E:	**Critical data (discussion on calculations above)**		
38	Dates durign which flow data was recorded and degree of accuracy		Based on DMRs 2012-'15 estimated values
39	Ground water elevation data relative to the collection system		Varies
40	Rainfall data during the time period of data collection and comparison to normal seasons		Typical
41	Probable degree of accuracy of flow reduction due to proposed or completed I/I correction or elimination of bypasses		10000 gpd AWW reduction following sanitary sewer improvements through 2012

Appendix F: City of Cleveland Adopted Resolution

State of Minnesota
County of Le Sueur

CITY OF CLEVELAND

RESOLUTION # 07-2016

ADOPTING POSITION ON WEST JEFFERSON LAKE SANITARY SEWER REQUEST

WHEREAS, a group of property owners around West Jefferson Lake has requested that the City of Cleveland allow them to connect their proposed sanitary sewer collection system to the City's system without being annexed into the City limits, and;

WHEREAS, the City Council discussed a number of issues and concerns with regards to this request at their November 16, 2015 city council meeting and a committee meeting on December 11, 2015 and determined that their request would be allowed if a suitable agreement can be reached that establishes the policies and conditions of allowing such a connection, and;

NOW, THEREFORE, THE CITY OF CLEVELAND RESOLVES:

Section 1. The City recognizes that allowing the West Jefferson Lake area properties to discharge their sanity sewer to the City's municipal collection and treatment system will provide benefit to the environment as well as to the property owners.

Section 2. The City, upon reaching an agreement on a comprehensive set of conditions and policies to be established, is willing to allow the connection of a non-municipal sewer system consisting of no more than 140 properties serving the West Jefferson Lake area (an area outside the City limits) to the municipal sewer system.

Adopted: February 1, 2015

Cleveland City Council

Mayor

ATTEST:

City Clerk

Appendix G: City-County Draft Joint Powers Agreement

JOINT POWERS AGREEMENT
FOR WASTEWATER TREATMENT,MAINTENANCE,AND ADMINISTRATION

BETWEEN

LE SUEUR COUNTY AND THE CITY OF CLEVELAND

DRAFT
MAY 12, 2016

THIS AGREEMENT, made and entered into this _____day of _____, 2016, by and between the City of Cleveland , a municipal corporation in Le Sueur County, Minnesota ("City") and the County of Le Sueur, a body politic and corporate, of the State of Minnesota ("County").

WHEREAS, pursuant to Minnesota Statues, Section 471.59 (Joint Exercise of Powers), governmental units may enter into an agreement through the action of their respective governing bodies to jointly or cooperatively excercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they may be exercised.

NOW, THEREFORE BE IT RESOLVED, in consideration of the mutual covenants and conditions herein contained and for other good and valuable consideration, the receipt of which is hereby acknowledged, the parties agree:

RECITALS

The recitals shall not be deemed to be a limitation on the joint powers of City and County to be exercised pursuant to this agreement, but shall be deemed statements of the general purposes of the agreement.

1. The City owns and operates a wastewater treatment system that includes a wastewater treatment pondsand wastewater collection system to provide wastewater treatment services to properties within the City.
2. Property owners around West Jefferson Lake requested the County construct a centralized wastewater collection and treatment system, and the County has determined these propertiesare in need of centralized wastewater collection and treatment services.
3. The County has exercised its authority under Minnesota Statutes, Chapter 375B to establish a subordinate service district encompassing the West Jefferson Lake properties for the purposes of addressing wastewater needs within the district.
4. The County has determined the best method for providing wastewater collection and treatment services is for the County to install a wastewater collection system to serve the properties within the district and to connect its collection system to the City's wastewater treatment ponds for treatment.
5. The County desires to discharge wastewater it collects from the West Jefferson Lake system it intends to construct to the City wastewater treatment ponds for treatment and the City agrees to provide operation, administration, maintenance, receive and treat the County's wastewater from the West JeffersonLake system under the terms and conditions of this Agreement. The City at their discretion may subcontract maintenance work to a party of their choice.

AGREEMENT

In consideration of the mutual covenants and conditions contained herein, the parties hereto agree as follows:

ARTICLE I
GENERAL PROVISIONS

1.1. Purpose of Agreement. The purpose of this Agreement is to set out the terms and conditions under which the City agrees to permit the interconnection of the West Jefferson Lake System, which the County is to construct as part of the Subordinate Service District it established, to the City's Wastewater Treatment Ponds (WTP). And the City to provide operation, administration, maintenance, receive and treat the County's wastewater from the West Jefferson Lake System in the City's WTP.

1.2. Definitions of Terms. For the purposes of this Agreement, the following terms shall have the meaning given them in this Section.

1.2.1. Agreement. Agreement means this contract for the interconnection of sanitary sewer systems between the City and the County, acting for the West Jefferson Lake Subordinate Service District, and the City to provide operation, administration, maintenance, receive and treat the County's wastewater from the West Jefferson Lake System in the City Wastewater Treatment Ponds.

1.2.2. City. City of Cleveland, Minnesota.

1.2.3. City Wastewater Treatment Ponds (WTP). The wastewater treatment ponds constructed, owned, operated, and maintained by the City.

1.2.4. City Wastewater Treatment System. The comprehensive collection and treatment of wastewater by the City including, but not limited to, the City Collection System and the City Wastewattertreatment ponds.

1.2.5. County. County of Le Sueur, Minnesota.

1.2.6. Connection Point. The point of interconnection with the City Wastewater Treatment System from the West Jefferson Lake System.

1.2.7. District. Refers to the West Jefferson Lake subordinate service district.

1.2.8. Infiltration. Water entering the sewage system (including building drains and pipes) from the ground through sources such as, but not limited to, defective pipes, pipe joints, connections and manhole walls.

1.2.9. Inflow. Water, other than wastewater, that enters a sewer system (including building drains) from sources such as, but not limited to, roof leaders, cellar drains, yard and area drains, foundation drains, drains from springs and swampy areas, manhole covers, cross-connections from storm sewers, catch basins, surface runoff, street wash waters or drainage.

1.2.10. Infiltration/Inflow (I/I). The total quantity of water from both infiltration and inflow.

1.2.11. MPCA. Minnesota Pollution Control Agency.

1.2.12. West Jefferson Lake System. The system of sewers, force mains, lift stations, constructed, and owned by the County,which are intended to carry only liquid and water-carried wastes from residences and other approved uses located within the West Jefferson Lake Subordinate Service District established by the County and shown on the map attached hereto as Exhibit A.

1.2.13. Service Connection. The physical connection of a sanitary sewer service line from an individual property to the West Jefferson Lake System. Each service connection may represent one SAC Units as defined below.

1.2.14. Sewer Availability Charge (SAC). A development impact fee assessed for reserve capacity, sewage treatment, and connection rights to the City sanitary sewer system.

1.2.15. SAC Units. A number of units that is defined in the City's utility fee schedule, adopted by ordinance, using various parameters for different types of facilities or uses. Under this agreement, a limit of 140 SAC units will be allowed for the West Jefferson Lake System, specifically assigned to individual parcels as given in Exhibit B.

1.2.16. State. State of Minnesota.

1.2.17. Subordinate Service District. A Subordinate Service District of Le Sueur County established for the West Jefferson Lake area by Le Sueur County Board of Commissioners Resolution #XX-XXX in accordance with the procedures outlined in Minnesota Statutes, Section 375B. The boundaries of the district are as shown in Exhibit A. In case of a discrepancy between the map adopted as part of County Resolution #XX-XXX and the map included with this Agreement as Exhibit A, the map included with this Agreement as Exhibit A, included amendments thereto which may be made subsequent to the execution of this Agreement as given under Article VIII, shall govern.

1.2.18. NPDES. National Pollution Discharge Elimination System.

1.2.19. User. Any person who discharges wastewater, or causes or permits the discharge or placement of wastewater, into the West Jefferson Lake System.

1.2.20. User Fees. The amount the the City shall collect for administration, operation, maintenance, and receiving and treating wastewater from the West Jefferson Lake System.

1.2.21. User Charge System (UCS). The system of user and sewer service charge established and adopted by the City, and codified in the Cleveland City Code, Chapter XX, which levies charges on users of the City Wastewater System for the user's proportionate share of the costs, associated with the City Wastewater System. The UCS includes user and sewer service charges, which generate revenue for billing administration, infiltration/inflow, operation, maintenance (including replacement), and a debt service charge, which generates revenue for the repayment of capital-related costs of the City Wastewater System. Specific rates and charges are adopted annually by ordinance, identified as the Utility Fee Schedule.

1.2.22. Wastewater. All liquid or water-carried waste products from whatever source derived, together with such groundwater infiltration and surface water inflow as may be present.

1.3. **Easements.** The County is responsible for acquiring all easements or other permissions required to construct the West Jefferson Lake System, and as may otherwise be needed to carry out its obligations under this agreement. The District is responsible for all cost, at its own expense, for all easements or other permissions required to the Connection Point. The City will provide permits as may be required to perform any work within the City's streets, right of ways, or easement areas at no cost.

1.4. **Compliance with Applicable Laws**. Each party shall be responsible for complying with all applicable federal, state, and local laws, rules, regulations, and ordinances in carrying out their respective obligations under this Agreement and for obtaining all permits or permissions that may be required.

1.5. **Cooperation with Agencies**. The County and the City shall cooperate and participate in providing all data requested by any State or Federal agency relative to regulatory policies or funding requests related to activities contemplated by this Agreement.

1.6. **Term of Agreement**. Unless terminated earlier as provided herein, the County shall have the right, for as long as the City operates the City Wastewater System, to convey wastewater from West Jefferson Lake System to the City WTP for treatment in the WTP, provided the County acts in compliance with provisions of this Agreement.

1.7. **Review of Agreement**. The County and the City shall cooperate and participate in a review of this Agreement at least every five (5) years from the date of execution of this Agreement, or at such the time that the renewal of the NPDES permit for the WRF occurs, whichever occurs sooner.

1.8. **Termination**. Either party may terminate this Agreement for cause arising from an event of default as provided in this Section.

1.8.1. Termination for Cause. Notwithstanding anything else to the contrary in this Agreement, either party may terminate this Agreement for cause arising from an event of default. If an event of default occurs, and if the non-defaulting party desires to terminate this Agreement, it shall provide the other party written notice describing the event of default and what must be done in order to cure the default. If the defaulting party fails to reasonably cure the default within 90 days of its receipt of the notice of default, the non-defaulting party may terminate this Agreement by providing the other party a written notice of termination. For the purposes of this section, the failure to adequately perform any of the following obligations under this Agreement shall constitute an "event of default" allowing a termination for cause: (1) repeated non-payment of any non-disputed amounts; (2) failure of the County to put in place or enforce restrictions regarding the number of connections within the Subordinate Service District; (3) failure to construct the West Jefferson Lake System or Connecting Sewer Line; (4) failure to comply with any other material term of this Agreement.

1.8.2. Effect of Termination. Upon termination, the respective rights and obligations of the parties under this Agreement shall cease, except that the City shall be entitled to any past due payments and for continuing payments until the City Wastewater System is no longer receiving wastewater from the West Jefferson Lake System. Recognizing the fact this Agreement provides for the connection of two wastewater systems, and that the County must provide an alternative means for treating wastewater before it can reasonably disconnect from the City Wastewater System, the parties agree to work in good faith to identify the resolve the issues associated with separating the systems and dissolving the cooperative arrangement established between the parties by this Agreement.

1.9. **Title to Wastewater Systems**. It is agreed and understood by the parties hereto that the title to, and all incidents of ownership in, the City Wastewater System, any subsequent replacement or upgrades, improvements or expansions thereof, and all the grounds upon which the same is located shall remain in the City and shall be the absolute property of said City. It is further agreed and understood that the operation of the City Wastewater System and employment of personnel therefore shall be in the full charge of the City. It is further agreed and understood that the title to, and all incidents of ownership in, the West Jefferson Lake System, the Connecting Sewer Line, including any subsequent replacement or improvements, shall be the property of and owned by the County exclusively. Those that may be contracted by the County to construct, or improve the West Jefferson Lake System and the Connecting Sewer Line shall not be the responsibility of the City.

1.10. **DISPOSITION OF PROPERTY**Upon termination of this agreement all property hereunder which is within the City limits of the City shall belong to the City and all other property acquired hereunder shall belong to the County.

ARTICLE II
WEST JEFFERSONLAKESYSTEM

2.1. **Construction**. The District is solely responsible for, at its own cost, designing and constructing the West Jefferson Lake System, and completing all work to connect the system to the City WTP. The City shall have no financial or other obligation to the West Jefferson Lake System other than to provide operation, administration, maintenance and to receive and treat its wastewater as provided in this Agreement.

2.2. **Plan Review**. The District shall be responsible for preparing all plans and specifications needed for the construction of the West Jefferson Lake System. The District shall submit all such plans and specifications to the County and the City for review and approval at least 30 days prior to the County advertising for bids for its construction. The materials and specifications to construct the West Jefferson Lake System must be at least of the same quality used by the City and must otherwise be acceptable to the City.

2.3. **Limitations on System**. The parties understand and agree the West Jefferson Lake System will be designed to serve up to a total of 140 SAC units within the Subordinate Service District with the total number of SAC units for the West Jefferson Lake System being as set forth in Exhibit B. The total number allowable SAC Units available to the West Jefferson Lake System shall be strictly allocated as designated to each Parcel Identification Number as set forth in Exhibit B. The transference of Service Connections/SAC Units from one parcel to another is allowed under this Agreement—such an action would require an Amendment to the Agreement and Exhibit B. The total of 140 SAC units would be required to be reallocated (taken away from another eligible property) and the City and County agree to immediately revise Exhibit B accordingly.

Other than as specifically set forth in Exhibit B, the County shall not make or allow any additional ServiceConnections/SAC Units to the West Jefferson Lake System, or to the Connecting Sewer Line, without the prior written agreement of the City to the County's request for expansion as provided herein.

2.4. **User Fees**. The Citymay maintain a user fee system which assesses a user charge to each Service Connection on the West Jefferson Lake System proportionate to that Service Connection's wastewater contribution to the City WTP.

2.5. **City Wastewater System Operator.** The City shall provide an operator qualifiedto operate the West Jefferson Lake System. The cost will be paid for through user fees collected by the City, specifically the Monthly Maintenance Fund Charge.

2.6. **User Regulations**. The County and City shall enact, adopt, and strictly enforce all such resolutions, ordinances, or regulations as may be necessary to impose limitations on users of the West Jefferson Lake System that are at least as strict as those applicable to uses

within the City and as may be needed to give full effect to the stipulations contained in this Agreement.

2.7. **Penalties**. The County shall be responsible for paying any penalties or violation fees imposed on the City from the MPCA, or other similar agency, if such penalties or violation fees are the result of the County's action or inaction related to the West Jefferson Lake System.

ARTICLE III
INTERCONNECTION

3.1. **Authority for Connection**. In consideration of the terms and conditions of this Agreement, the City hereby grants the County permission and authority to connect the West Jefferson Lake System to the City WTP at the Connection Point identified herein.

3.2. **Connection Point**. The Connection Point of the West Jefferson Lake System with the City Wastewater Treatment System shall be at a point near the City WTP.

3.3. **Construction of Interconnection**. The District shall be responsible for all work and costs associated with the connection of the West Jefferson Lake System to the City Wastewater Treatment System.

3.4. **Future Discharge Interconnection**. The City may determine, in conjunction with a review by an independent third party engineer, that it is in the best interests of the City that the location of the Connection Point of the West Jefferson Lake System with the City Wastewater Treatment System needs to be modified and/or changed. The City in its sole discretion may exercise the option to determine that the location of the Connection Point of theWest Jefferson Lake System with the City Wastewater Treatment System needs to be modified and/or changed in the future. The City shall be responsible for all work and costs associated with themodification or location change of the Connection Point of the West Jefferson Lake System to the City Wastewater Treatment System.

ARTICLE IV
ACCEPTABLE WASTEWATER

4.1 **Acceptable Wastewater.**The quality, strength and character of wastewater which the City receives at its WTP from the West Jefferson Lake System shall comply with the following:

4.1.1 The County shall enact and enforce such rules and regulations as will require all persons using the West Jefferson Lake System to comply with regulations no less stringent than the ordinances, rules and regulations of the City, now or hereinafter enacted, concerning the strength and character of wastes permitted to be discharged into the City Wastewater Treatment System.

4.1.2 The County shall also comply with applicable statutes, rules and regulations of the State of Minnesota and in particular shall do those things necessary to comply with the City's NPDES permit.

4.1.3 The County shall use its best efforts to prevent any surface or stormwater, excessive infiltration, or industrial wastes to be discharges into the West Jefferson Lake System.

ARTICLE V
INSPECTIONS

5.1 **City Inspections**. The City, or its designated representative, upon reasonable notice first given to the County, shall be permitted to audit and inspect the materials, construction, of the West Jefferson Lake System in order toconfirm that the same is being constructed, according to applicable City specifications and standards, all applicable federal, state, and local laws, rules, regulations, and ordinances, and to verify the County is fully complying with termsof this Agreement.

ARTICLE VI
FEES, PAYMENTS AND ADDITIONAL COSTS

6.1 **Consideration**. In consideration of the use of the City WTPby the County for its West Jefferson Lake System, the District shall pay the City the fees and charges provided for in this Article as well as any other amounts required by this Agreement.

6.2 **SAC Connection Fee**. The District shall pay to the City a SAC connection fee in the amount of ….

6.3 **User Fees**. User Fees shall be set by the City, reviewed annually and adjusted as necessary. The West Jefferson Lake System User Fees will consist of a monthly base charge, monthly flow charge, and a monthly maintenance fund charge. The monthly base charge and monthly flow charge shall be the same rates as the rates charged to City of Cleveland residents.

6.3.1 Monthly Base Charge shall include cost allocated for operation and maintenance of the system, administration, debt retirement, facility replacement.

6.3.2 Monthly Flow Charge shall include cost allocated based on flow discharged to the City Wastewater Treatment System. The charge is based on usage of water within the dwelling. The water will be metered within each dwelling by a water meter that is install as part of construction of the West Jefferson Lake System.

6.3.3 Monthly Maintenance Fund Charge. The monthly maintenance fund shall include costs allocated for maintenance and replacement of the West Jefferson Lake System.

6.4 **Billing Invoice for Services**. The City or appointed individual shall read on a monthly basis the meter at the property and bill the residents for the amount the resident is required to pay or reimburse the City for under this Agreement.

6.5 **Non-Payment.** Failure on the part of the resident to pay all amounts due to the City within 30 days of the invoice date shall render such unpaid amount delinquent. If the delinquent amount is not paid in full within 14 days of notice of delinquency, such delinquent amount shall bear interest at an annual rate of twelve percent (12%). The City shall have and hereby reserves the right to enforce payment against the resident by requesting to the County to appropriate proceedings of filing a lien upon the property serviced pursuant to Minnesota Statue 444.075(3) and shall be collected in the manner therein provided.

6.6 **Insurance.** The City will provide liability insurance in an amount equal to what is provided to properties in the City of Cleveland.

ARTICLE VII
REQUEST FOR EXPANSION

7.1 **Procedure**. The District may request to expand the number of connections within the West Jefferson Lake System. The request for adding connections needs to get approval from the City of Cleveland. The City of Cleveland will authorize Le Sueur County to expand the Subordinate Service District boundaries. Le Sueur County has the authority to allow the expansion of the District following Minnesota Statues 375b.

7.2 **Review of Request**. No expansion is allowed unless it is in the form of a written amendment to this Agreement and approved by the governing bodies of the County and the City.

7.3 **Expansion of City Wastewater System.** Expansion or improvement of the City Wastewater System shall be subject to this Section.

7.3.1. City Project. If the City undertakes a project to expand or replace its WTP, construct a new Wastewater Treatment Plant the District shall be responsible for paying its proportionate share of such project, with such proportionate share to be determined consistent with the same rationale utilized to determine applicable costs for properties within the City.

ARTICLE VIII
INDEMNIFICATION AND LIABILITY

8.1 **County Indemnification of City**. The County shall defend, indemnify, and hold harmless the City, its officers, employees, and agents against any claim brought, action filed, or penalty imposed by reason of any act or omission of the County, its officers,

employees, and agents against any and all liability, loss, costs, damages, expenses, fines, penalties, claims, or actions, including attorney fees, which the City, its officers, employees, or agents may hereafter sustain, incur, or be required to pay, arising out of or by reason of the construction, operation, maintenance, or improvement of the West Jefferson Lake System, the Connecting Sewer Line, or the Subordinate Service District. This indemnification obligation includes the County defending, indemnifying, and holding the City harmless against any claims or actions arising from or related to any actions taken by the City or County to enforce the limits or prohibitions established in this Agreement related to the amount of the wastewater received from the West Jefferson Lake System including, but not limited to, restricting flow, suspending service, or imposing additional costs on users. The County is not responsible for indemnifying the City against actions arising solely from the claimed negligence of the City, its officers, employees, or agents. The indemnification obligation contained in this Section is in addition to any other County indemnification obligations contained in this Agreement.

8.2 **City Indemnification of County**. The City shall indemnify, save and hold harmless the County from any and all loss or damage to any property incurred by the County by reason of any act or omission on the part of the City, its agents or employees, in connection with the construction or operation and maintenance of the City Wastewater System, unless the same shall be due to the negligence of the County, its agents or employees.

8.3 **Circumstances Beyond Control**. The City shall not be responsible if the City Wastewater Systemis prevented from receiving or treating wastewater from the West Jefferson Lake System in accordance with the terms of this Agreement by any cause not reasonably within the control of the City including, but not limited to, acts of God (fire, explosion, flood, earthquake, tornado), strike, war, unavoidable accident, ruptured pipe resulting from temperature change or ground disturbances, or Federal or State interference (governmental exercise of authority, court orders). The City agrees (except in the case of total destruction or near total destruction of its properties) to diligently put its works in condition again, as soon as practicable, to dispose of sewage in the manner provided for in this Agreement. The County shall hold, save, and defend the City harmless for any damage or loss resulting from such impossibility, frustration, interruption, or suspension of performance of the terms of this Agreement.

8.4 **Liability Caps and Exemptions**. To the extent a court considers this Agreement to constitute a joint venture or joint enterprise between the City and the County, any liability arising from or related to the activities contemplated by this Agreement shall be considered as against a single entity and shall not exceed the limit for a single entity as provided in Minnesota Statutes, Section 471.59, Subdivision 1a(a). Nothing herein shall constitute a waiver by any party of the limitations on or exclusions from liability available to either under Minnesota Statutes, Chapter 466 or as otherwise provided in law.

ARTICLE X
CHOICE OF LAW AND VENUE; DISPUTES

10.1 **Choice of Law and Venue; Disputes.** This Agreement shall be governed by and construed in accordance with the laws of the state of Minnesota. Any disputes, controversies, or claims arising out of this Agreement shall be heard in the state or federal courts of Minnesota, and all parties to this Agreement waive any objection to the jurisdiction of these courts, whether based on convenience or otherwise.

ARTICLE XI
MISCELLANEOUS PROVISIONS

11.1 **Entire Agreement**. The terms, covenants, conditions, and provisions of this Agreement, including present and all future attachments or exhibits shall constitute the entire agreement between the parties hereto superseding all prior agreements and negotiations. This Agreement shall be binding upon and inure to the benefit of the respective successors and assigns of the City of Cleveland and the County of Le Sueur.

11.2 **Amendments**. This Agreement may be amended or modified only by mutual, written agreement duly executed by both of the parties hereto. Such written agreement shall be executed by a resolution duly adopted by the Board of the Le Sueur County Commissioners and the City Council of the City of Cleveland.

11.3 **Governing Law**. This Agreement is made pursuant to, and shall be construed in accordance with the laws of the State of Minnesota.

11.4 **No Third Party Rights**. No party to this Agreement shall by virtue of this Agreement have any responsibility with respect to services provided or contractual obligations assumed by any other party, and nothing in this Agreement shall be deemed to constitute or to create any fiduciary or agency relationship among the parties or any other party.

11.5 **Recitals and Attachments**. The recitals contained herein, together with all Attachments or Exhibits referred to in this Agreement, are hereby made a part hereof and incorporated herein by reference as fully and as completely as if set forth herein verbatim.

11.6 **Waiver**. The waiver by either party of an event of default of any term of this Agreement by the non-defaulting party shall not operate, or be construed to operate, as a waiver of any subsequent claim of default or any other claim available under this Agreement or available at law or in equity. The making or the acceptance of a payment by either party with knowledge of the existence of a default shall not operate, or be construed to operate, as a waiver of any subsequent claim of default or any other claim available under this Agreement or available at law or in equity.

11.7 **Severability**. In the event that any provision of this Agreement is determined to be invalid, illegal, or unenforceable by any court of competent jurisdiction, by reason of any existing or subsequently enacted legislation, or by the application of existing or subsequently adopted rules and regulations of any State or Federal agency, the other provisions of this Agreement shall remain in full force and effect, and the parties hereto shall negotiate in good faith and agree to such amendments or modifications of or to this

Agreement or other appropriate actions as shall, to the maximum extent practicable in light of such determination, implement, and give effect to the intentions of the parties hereto.

11.8 **Notice**. Any notices required under the provisions of this Agreement shall be in writing and sufficiently given if delivered in person or sent by first class mail, postage prepaid, as follows to the City Clerk if to the City, or to the County Administrator if to the County.

IN WITNESS WHEREOF, the City of Cleveland has caused this Agreement to be signed in duplicate by its Mayor and City Clerk, and its corporate seal to be hereunto affixed pursuant to a resolution of the City Council of the City of Cleveland, a certified copy of which is hereto attached; and the County of Le Sueur has caused this Agreement to be executed by its chairman, attested to by its clerk to the Board pursuant to a resolution duly adopted by the Board of the Commissioners of Le Sueur County, certified copy of which is hereto attached.

COUNTY OF LE SUEUR

Approved by on the _____ day of _____, 2016.

BY THE COUNTYBOARD

_____
Chairperson

ATTEST:

_____
CountyAdministrator

CITY OF CLEVELAND

Approved on the _____ day of _____, 2016.

BY THE CITY COUNCIL

_____
Mayor

ATTEST:

_____
City Clerk

EXHIBIT A

Map of Subordinate Service District

(attached hereto)

EXHIBIT B

Parcel Listing / Number of Allowable SAC Units per Property

(attached hereto)

Appendix H: City of Cleveland's NPDES Permit

Minnesota Pollution Control Agency

March 1, 2005

CERTIFIED MAIL 7003 2260 0007 5882 4590
RETURN RECEIPT REQUESTED

The Honorable Ferris Robb
Mayor, City of Cleveland
PO Box 309
Cleveland, MN 56017-0309

RE: Final Reissuance National Pollutant Discharge Elimination System/State Disposal System Permit
General Permit Number MNG580009 - Notice of Coverage
Cleveland Wastewater Treatment Facility
Cleveland, Minnesota

Dear Mayor Robb:

Enclosed is a copy of National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) General Permit MNG580000 (Permit). By this Notice of Coverage (NOC), the Wastewater Treatment Facility (Facility) identified above is covered under this Permit and is authorized to discharge as of the date of this letter.

Based on information submitted by the city of Cleveland (City), the Facility is described as follows:

A wastewater treatment facility consisting of a three-cell stabilization pond system located in Le Sueur County (SE¼ of Section 17 and SW¼ of Section 16, T110N, R25W). The Facility is designed for 180 days of storage at an average wet weather flow of 0.137 million gallons per day (MGD) with a five-day carbonaceous biochemical oxygen demand strength of 225 milligrams per liter. The Facility treats domestic sewage and discharges to the Cherry Creek (County Ditch No. 5 and 37) (Class 3C, 4A, 4B, 5, 6, 7 water) to Cherry Creek (Class 2B, 3B, 4A, 4B, 5, 6 water) and thence to the Minnesota River (Class 2B, 3B, 4A, 4B, 5, 6 water).

The mass loading limits assigned to the City's Facility are as follows (see Chapter 2.1):

Solids, Total Suspended (TSS), Calendar Month Average	182.9 kg/day
Solids, Total Suspended (TSS), Maximum Calendar Week Average	264.2 kg/day
BOD, Carbonaceous 05 Day (CBOD5), Calendar Month Average	101.6 kg/day
BOD, Carbonaceous 05 Day (CBOD5), Maximum Calendar Week Average	162.6 kg/day

Permitting requirements specific to the City's Facility are as follows:

- The Fecal Coliform Bacteria effective period is between May 1 and October 31. See Chapter 2 of the Permit for specific limits and monitoring requirements.
- The acceptable pond discharge periods are April 1 through June 15 and September 15 through December 15. See Chapter 4 of the Permit for details.
- The City is required to submit a Phosphorus Management Plan (PMP). See Chapter 5 of the Permit for specific requirements.
- The City is required to complete a leaking pond evaluation. See Chapter 7 of the Permit for specific requirements.

Compliance with the terms and conditions of this Permit is required as of the date of this letter. The Minnesota Pollution Control Agency (MPCA) must be notified immediately if conditions change.

For your convenience, a *Permit Users Manual* and a *Submittals and Actions Checklist* (Checklist) have been included with this Permit. The Permit Users Manual includes Permit definitions and provides basic information to help the City with general questions about such things as how to complete Discharge Monitoring Reports (DMRs), perform calculations and renew operator certification. The Checklist generally summarizes the submittal requirements for the City's Facility over the life of the Permit. However, please be aware that the specific requirements for coverage are detailed in the Permit itself and should be reviewed carefully. The Checklist also includes a list of the MPCA staff assigned to this Permit, should you have any questions.

Sincerely,

Jeff Smith
Acting Supervisor, Southeast Regional Unit
Municipal Wastewater Section
Municipal Division

JS/LMM:slr
Enclosures: Final Permit
Permit Users Manual
Submittals and Actions Checklist

cc: Glenn Beer, Operator, Cleveland Wastewater Treatment Facility (w/enclosures)
Gwyn Ploog, Clerk, City of Cleveland (w/final permit)
Mary DeZurik, MPCA, St. Paul Office
Mary Kimlinger, MPCA, St. Paul Office
Teri Roth, MPCA, Mankato Office (w/final permit)

Appendix I: City of Cleveland WWTP Capacity

BOLTON & MENK, INC.
Consulting Engineers & Surveyors
1960 Premier Drive • Mankato, MN 56001-5900
Phone (507) 625-4171 • Fax (507) 625-4177
www.bolton-menk.com

M E M O R A N D U M

Date: December 2, 2015

To: Honorable Mayor and Distinguished Council - City of Cleveland

From: Jason L. Femrite. P.E., Cleveland City Engineer

Subject: Wastewater Treatment Ponds (WWTP) - Capacity
Jefferson and German Lake Sanitary Collection System
City of Cleveland
Project No.: M15.108144

Introduction

A portion of the German/Jefferson Lakes Association had been in discussion with the City of Cleveland regarding the construction of a potential sanitary collection system in the lakes area and connecting to the City of Cleveland's Wastewater Treatment Ponds. At this time, only a select amount of the properties surrounding West Jefferson Lake have expressed interest in implementing a project in the near future.

As such, we have reviewed the capacity of the City's existing treatment ponds and collection system to determine if the system is adequately sized to handle the additional wastewater loadings from the West Jefferson area. We have also provided discussion points and preliminary sizing information for an ultimate buildout scenario, which could include connection the entire Jefferson and German Lake area to the City of Cleveland's collection system.

West Jefferson Connection

The following contains our analysis of the existing sanitary system in Cleveland as it relates to the proposed West Jefferson sanitary collection system.

Population Data

The following table contains a summary of the City of Cleveland's population data which was used in analysis:

Table 1 – Cleveland Population Data		
Cleveland Current Population	713	Persons
Cleveland Sewer Connections - Existing	291	Connections
Cleveland Occupancy per Lot	2.45	Persons
City Growth Rate	0.5%	
Design Life	20	yrs
20 yr Pop. Increase	75	persons
20 yr. Pop.	788	persons
Cleveland Anticipated 20 yr Total Connections	**322**	**connections**

At growth rate of 0.5%, the existing treatment ponds will service 788 people or 322 connections (within Cleveland) by 2035. In addition, population data for the affected area of West Jefferson Lake is included in Table 2.

Table 2 – West Jefferson Population Data		
Number of Existing Lots	203	Lots
Number of Lots Currently Developed	180	Lots
Assumed Occupancy per Lot	2.45	Persons
Growth Rate	0.5%	
Design Life	20	yrs
West Jefferson Anticipated Total Connections	**~200**	**connections**

The City of Cleveland has three wastewater treatment ponds northwest of the City. During our review, we utilized the Discharge Monitoring Reports (DMRs) for the facility dating back to 2010. During analysis, the capacity of the existing WWTP was analyzed against inflow as well as BOD_5 loading.

Inflow

The existing WWTPs are permitted for 0.137 million gallons of wastewater per day (mgd). Referencing inflow data from the recent DMRs, the additional capacity of the existing WWTP can be found by subtracting the current average wet weather (AWW) flow from the permitted flow capacity. Inflow data used during analysis can be found in **Table A1 – Existing Inflow** of the Appendix.

It should be noted that in various years leading up to 2012, inflow and infiltration improvements were implemented throughout the City of Cleveland. As a result of these improvements, inflow to the existing ponds has been significantly reduced. Taking this into account, the capacity of the existing pond system was calculated using inflow data between 2012 and 2015.

The existing *flow* capacity of the current ponds is presented in Table 3, below.

Table 3 - Existing WWTP Inflow Capacity		
WWTP Design Capacity	0.137	mgd
Existing Average Wet Weather (AWW) Flow	0.063	mgd
2015 Available Capacity of WWTP	0.074	mgd
ADF per Capita	100	gpd
20 yr. Additional ADF	7499	gpd
20 yr. Additional ADF	0.007	mgd
Calculated 2034 Flow	0.070	mgd
20 Yr. WWTP Excess Capacity, mgd	0.067	mgd
Current Capacity for Jeff/Germ Area	**271**	**connections**

From Table 3, above, the excess *inflow* capacity available for the Jefferson/German Lakes area is 0.067 mgd or approximately **271 connections** (100 gal/person/day and 2.45 person/connection). The existing BOD_5 loading was also analyzed.

BOD_5 Loading

Table 4, below, provides a summary of the calculations for the BOD5 loading capacity of the existing system. **Table A2 – BOD_5** has also been provided in the Appendix, which provides the DMR data used to calculate the actual BOD_5 loading rates into the existing ponds.

Table 4 - Existing WWTP BOD_5 Loading Capacity		
BOD5 Loading per Connection	0.4165	lbs/day
Current BOD5 Loading (from DMRs)	95.1	lbs/day
20 yr. Additional BOD_5 Loading	12.75	lbs/day
Calculated 2035 BOD_5 Loading	108	lbs/day
2035 BOD5 Loading per Acre	8.5	lbs/day/acre
2035 Excess BOD_5 Loading per Acre	11.5	lbs/day/acre
2035 Excess BOD_5 Loading	145	lbs/day
20 Yr Capacity (at BOD_5 loading 20lb/ac)	349	connections

As noted above, the excess BOD_5 loading capacity of the existing treatment ponds is 145 lbs per day or 349 additional connections. As such, the flow capacity of the existing pond system controls the capacity for additional connections at 271 connections.

Cleveland Sanitary Pipe

There are currently two potential connection points for the proposed sanitary forcemain from West Jefferson, which are shown in **Figure 1**.

The existing sanitary sewer within each potential connection point is 8 inches in diameter. The capacity sanitary pipe are nearly identical and are both capable of conveying flow from the West Jefferson area, operating around 45% capacity during peak flow periods.

Utilizing the west connection (as noted in Figure 1) will require about ½ mile of additional forcemain in comparison to utilizing the east connection; so at this time, the east connection may be the most likely implemented with this project.

West Jefferson Summary

As described above, the existing treatment ponds are adequately sized to treat the additional flow from the West Jefferson area (estimated at 200 connections). If connected, the existing treatment ponds would be operating around at approximately 90 percent capacity at the 20 year design life.

In addition, the sanitary pipe system within the City is adequately sized to convey the estimated additional flow from West Jefferson.

Future Ultimate Buildout Conditions

Under the conditions where the entire Jefferson and German Lakes area is connected to the Cleveland Treatment ponds, expansion of the existing treatment system would be required. It is our understanding that the number of total connections within this area is about 850. Given the existing system is adequately sized to take an additional 270 connections, the expansion would require adequate treatment for approximately 580 additional connections.

WWTP Expansion

Table 5, below, provides a summary of the preliminary treatment pond sizing to service the additional connections.

Table 5 - WWTP Expansion

Size of Current WWTP	18.96	acre
Current Design Capacity	0.137	mgd
Current Design Capacity/Ac.	7226	lb per acre
Construction Cost	$ 160,000.00	per acre
	BOD_5 Loading	
Total Connections needed	850	connections
Total Loading	0.208	mgd
Loading Currently Avail.	0.067	lbs/Day
Additional Loading Req'd	0.141	lbs/Day
WWTP Expansion Req'd (at current design cap/ac)	**19.6**	acres (surface water only)
BOD_5 Loading per Acre	18.4	lbs./acre
Construction Cost	**$ 3,136,000**	For Ponds Only

Notes: Possibly Eligible for 50% PSI Grant
Cost w/ Grant: $ 1,568,000.00

As presented above, the expansion of the sanitary collection system to the entire Jefferson and German Lake area will require additional wastewater pond construction totaling about $3.1 million (2015 dollar amount). The expansion would include two (2) 6.5-acre primary ponds and one (1) 6.5-acre secondary pond. These figures assume pond depths similar to that of the existing treatment ponds. The proposed preliminary sizing will also be below MPCAs maximum loading capacity of 0.22 lbs per acre per day at the mean operating depth of the primary wastewater treatment ponds. **Figure 2** shows a preliminary layout of the pond expansion described above.

Cleveland Sanitary Pipe

Under the ultimate buildout conditions, sanitary flow volumes from the entire lakes area would exceed the capacity of the existing sanitary pipe network within Cleveland. In order to convey this additional flow from the lakes area, the existing pipe would require upsizing or the proposed forcemain from the lakes area could be extended to the treatment pond site.

Ultimate Buildout Summary

As previously described, the additional wastewater flow from the entire Jefferson and German Lakes area would require approximately 20 acres of new wastewater treatment ponds could be added to the existing system in Cleveland to allow for the increased wastewater loading. The project would also require the addition of capacity to the City's sanitary collection system.

The Point Source Implementation Grant (PSIG) program provides up to 50% grants for projects such as these. The process for receiving the grant will involve applying for listing on the MPCA's Project Priority List (PPL).

If you have any questions, please contact Jason Femrite at 507-625-4171 ext. 2288 or jasonfe@bolton-menk.com

Appendix

Table A1 - Existing In-Flow, mgd

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yearly Avg	
2010	0.056	0.046	0.119	0.064	0.056	0.089	0.066	0.04	0.091	0.056	0.052	0.057	0.066	
2011	0.059	0.075	0.159	0.127	0.11	0.091	0.071	0.033	0.027	0.027	0.028	0.029	0.070	
2012	0.028	0.028	0.031	0.035	0.074	0.041	0.028	0.027	0.027	0.029	0.028	0.03	0.034	Used in WWTP Analysis
2013	0.029	0.028	0.036	0.09	0.072	0.076	0.045	0.034	0.031	0.034	0.031	0.03	0.045	
2014	0.03	0.029	0.046	0.085	0.092	0.09	0.036	0.026	0.028	0.03	0.027	0.028	0.046	
2015	0.03	0.029	0.032	0.038	0.061	0.056	0.067	0.064	N/R	N/R	N/R	N/R	-	
Monthly Avg. ('10-'15)	0.039	0.039	0.071	0.073	0.078	0.074	0.052	0.037	0.041	0.035	0.035	0.035	0.051	
Monthly Avg. ('12-'15)	0.029	0.029	0.036	0.062	0.075	0.066	0.044	0.038	0.029	0.031	0.029	0.029	0.041	
Wettest 6 Mo. Average ('10-'15)			0.106	mgd										
Wettest 6 Mo. Average ('12-'15)			0.063	mgd	(Highlighted)									

Table A2 – BOD_5, mg/L

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yearly Avg	
2010		177			Missing			107			131		138	
2011		168			18			129			285		150	
2012		183			88			198			134		151	Used in WWTP Analysis
2013		124			122			285			93		165	
2014		261			77			285			318		235	
2015		171			110			N/R			N/R		-	
Quarter Avg. ('10-'15)		163			76			180			161			
Quarter Avg. ('12-'15)		184			76			256			182			
12 Mo. Average ('10-'15)			166	mg/L										
12 Mo. Average ('12-'15)			181	mg/L			**X .063 mgd**			**=**	**95.1 lb/day**			

"Friendly People, Our Greatest Asset"
Cleveland

Legend

- Lift Stations
- Sanitary Manholes
- Sanitary Clean Outs
- Sanitary Pipe
- Forcemain
- Parcels (9-1-2013)
- Lot Lines
- NWI
- Protected Waters - Basins
- Protected Waters - Watercours

0 350 Feet

© Bolton & Menk, Inc - Web GIS 12/2/2015 8:20 AM

Figure 1
Sanitary Connection

Disclaimer:

This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information, and data located in various city, county, and state offices, and other sources affecting the area shown, and is to be used for reference purposes only. The City of Cleveland is not responsible for any inaccuracies herein contained.

"Friendly People, Our Greatest Asset"
Cleveland

Legend

- Lift Stations
- Sanitary Manholes
- Sanitary Clean Outs
- Sanitary Pipe
- Forcemain
- Parcels (9-1-2013)
- Lot Lines
- NWI
- Protected Waters - Basins
- Protected Waters - Watercours

0 467 Feet

Figure 2
WWTP Ultimate Buildout

Disclaimer:

This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information, and data located in various city, county, and state offices, and other sources affecting the area shown, and is to be used for reference purposes only. The City of Cleveland is not responsible for any inaccuracies herein contained.

Appendix J: MPCA State Environmental Review Process (SERP) Mailing List Form

Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155-4194

State Environmental Review Process (SERP) Mailing List Form

Clean Water State Revolving Fund Program

Minnesota Rules 7077.0272, subp. 2.a.A.
Minnesota Rules 7077.0277, subp. 3.B.

Doc Type: Wastewater Point Source

Instructions: This is the complete mailing list that the Minnesota Pollution Control Agency (MPCA) will use to public notice the Environmental Summary or other environmental review documents. Please type names and addresses on this form and return to the MPCA staff engineer. This list should be considered minimum. If a more substantial mailing list is available for the Public Participation Program, it should be added to this mailing list. **Please return this mailing list in MS Word format only.**

Example address blocks:

The Honorable Mark Anderson
Minnesota State Senator
135 State Office Building
St. Paul, MN 55113

Marv Johnson, City Administrator
City of Willmar
236 Oriole Avenue
Willmar, MN 55699

Municipality name: City of Cleveland **Project number:** _____

Contact name: _____ **Phone number:** _____

(person completing the form)

Public notice address information

1.	**The Honorable State Senator:**	**6.**	**City Administrator/Clerk:**
	The Honorable Kevin L Dahle Minnesota State Senator 95 University Avenue W. Minnesota Senate Building, Room 3217 Saint Paul, MN 55155		Theresa Rohlfing, Deputy Clerk City of Cleveland 205 4th Street, P.O. Box 309 Cleveland, MN 56017
2.	**The Honorable State Representative:**	**7.**	**Engineering Consultant:**
	The Honorable Bob Vogel Minnesota State Representative 581 State Office Builing 100 Rev. Dr. Martin Luther King Jr. Blvd. Saint Paul, MN 55155		Jason Femrite, PE Bolton & Menk, Inc. 1960 Premier Drive Mankato, MN 56001
3.	**The Honorable County Board Chair:**	**8.**	**County Planning and Zoning Office:**
	District 5: The Honorable Steven J. Rohlfing 28020 Maple Lane Madison Lake, MN 56063		Kathy Brockway Le Sueur County Environmental Services 88 South Park Avenue Le Center, MN 56057
4.	**The Honorable Mayor:**	**9.**	**Watershed District (if established):**
	The Honorable Richard Walter City of Cleveland 205 4th Street, P.O. Box 309 Cleveland, MN 56017		None
5.	**Township Board Clerk:***	**10.**	**Regional Development Commission:**
	Susan Ely, Cleveland Township Clerk 41862 271st Avenue, Cleveland, MN 56017 Susan Ziebarth, Washington Township Clerk 28780 W Lake Drive, Madison Lake, MN 56063		Richard Peterson Region Nine Development Commission 10 Civic Center Plaza, Suite 3 Mankato, MN 56002

***Include if any portion of the project (including the facility, interceptor, influent or outfall lines) will be located in the township(s).*

To add rows, place your cursor in the last row of the second column and hit tab.

Interested citizens:	**Interested groups:** (i.e., homeowners associations, environmental, business, civic, etc., organizations)
None	None

To add rows, place your cursor in the last row of the second column and hit tab.

Property owners:

Property owner list should include all property owners of the site to be, or which has been previously acquired. For pond systems, include the property owner(s) of the pond site, spray irrigation site(s) and all property owners of homes within one-fourth mile of the pond site and any clusters of homes within one-half mile of the pond site.

CURTIS & DONNA ANDERSON TRUST 28695 HUB DR MADISON LAKE, MN 56063	WILLIAM A ANDERSON PO BOX 725 MANKATO, MN 56002
LAWRENCE O ANNEXSTAD 38004 STATE HWY 22 ST PETER, MN 56082	JAMES A & MARIE E ARMSTRONG 46607 EVERGREEN LN CLEVELAND, MN 56017
JOSHUA & MARCY BALLMAN PO BOX 17162 MISSULA, MT 59808	ROGER & PAMELA BARNLUND 28229 CEDAR TRL CLEVELAND, MN 56017
LEE K BECKER ET AL 56966 JUNEAU RD MANKATO, MN 56001	ROBERT J BEILKE 845 22ND ST SE ROCHESTER, MN 55904
DWIGHT E BESKE 27982 MAPLE LN MADISON LAKE, MN 56063	CHRIS & ANN BIEHN 230 PLAINVIEW AVE N MANKATO, MN 56001
VERNETTE R BIEHN TRUST 28785 470TH ST MADISON LAKE, MN 56063	TIMOTHY G & TAMMEJO A BLAHA 46552 CEDAR CIR CLEVELAND, MN 56017
STEVEN & SALLY M BLAIS TRUST 28636 WEST LAKE DR MADISON LAKE, MN 56063	RANDAL & CHRISTINE A BLASCHKO 28160 CEDAR TRL CLEVELAND, MN 56017
DAVID & KELLY BODE 44316 490TH ST N MANKATO, MN 56003	BEVERLY BOEHNKE & KIMBERLY SCHNARR 46531 EVERGREEN LN CLEVELAND, MN 56017
DARREL W & ELNA I BOHLKE 539 TYLER AVE N MANKATO, MN 56003	DEREK & KRISTI BUSH 7668 RIDGEVIEW WAY CHANHASSEN, MN 55317

ANDREW J BUYSSE 28852 WEST LAKE DR MADISON LAKE, MN 56063	KIM CAIRNEY & PENELOPE C SIMMONS 28010 MAPLE LN MADISON LAKE, MN 56063
JOSEPH & MARIE CASTO 28013 CEDAR TRAIL CT CLEVELAND, MN 56017	WENDELSCHAFER CEMETERY C/O OUR SAVIORS LUTH CHURCH PO BOX 277 CLEVELAND, MN 56017
PHILIP R CHESTER 2605 MAIN ST E MANKATO, MN 56001	DANIEL R & JOLENE CHRISTENSEN 28612 HUB DR MADISON LAKE, MN 56063
RUSSELL & STASIA CHRISTENSEN CHRISTENSEN TRUST 62674 240TH ST MADISON LAKE, MN 56063	THOMAS R CHRISTENSEN 46569 281ST AVE CLEVELAND, MN 56017
KEVIN W & ANN CHRISTIAN 3 INDIAN CREEK RD MANKATO, MN 56001	JULIE ANN COLLINS 1517 LA MAR DR N MANKATO, MN 56003
JAMES A & KATHRYN CONLON 40297 STATE HWY 22 ST PETER, MN 56082	ROLAND & LINDA CONNORS 4750 GALAXIE AVE EAGAN, MN 55122
LAUREL J COREY 13843 GLADIOLA WAY APPLE VALLEY, MN 55124	JERRY L & NANCY L COURSON 28187 464TH ST CLEVELAND, MN 56017
LYLE & PHYLLIS DASCHNER TRUST 62416 206TH ST JANESVILLE, MN 56048	CHARLES H DAUK 46511 EVERGREEN LN CLEVELAND, MN 56017
PAUL F DAUK 41995 281ST AVE LE SUEUR, MN 56058	MATHEW L & KRISTI A DAVIS 415 MACKENZIE CT SAINT PETER, MN 56082
KEITH & ANNETTE DELLWO 2640 SANTEE TRL NW PRIOR LAKE, MN 55372	BLAKE T & JOELLEN P DIRKS C/O ST PETER EYE CARE 320 SUNRISE DR ST PETER, MN 56082
DNR REAL ESTATE MGT C/O TAX SPECIALIST 500 LAFAYETTE RD BOX 30 ST PAUL, MN 55155	JEFFERY & ANNAFE DORNQUAST 524 3RD ST S WATERVILLE, MN 56096
KIMBERLY K DRAGER ET AL 1404 WILKINSON CT SAINT PETER, MN 56082	JOELLEN LINGREEN DUDYCHA C/O JOHN DUDYCHA 4075 51ST ST W EDINA, MN 55424
DENNIS & JOYCE FINDLEY ET AL PO BOX 184 ELYSIAN, MN 56028	MARY FLATEN & JOAN SHEPPARD 14812 OVERLOOK DR SAVAGE, MN 55378
DANIEL R & PATTY FLOWERS 46481 281ST AVE CLEVELAND, MN 56017	JOHN J & NADA K FOEDE 28908 WEST LAKE DR MADISON LAKE, MN 56063

GLEN F FOGAL & LIEN T NGUYEN 29029 SUNSET AVE MADISON LAKE, MN 56063	ALAN FREDERICK 46718 KIMBERLY RD MADISON LAKE, MN 56063
ROBERT J GADOLA 9597 BENNETT PL EDEN PRAIRIE, MN 55347	BRANDON W GELDNER 28808 WEST LAKE DR MADISON LAKE, MN 56063
ANTHONY R GENELIN 46242 ARTHUR DR CLEVELAND, MN 56017	GERMAN & JEFFERSON LAKE SPORTSMEN CLUB INC PO BOX 181 CLEVELAND, MN 56017
JASON & KIMBERLY GIBBS 46108 JEFFERSON SHORE DR CLEVELAND, MN 56017	GREGG & JOLENE GIERSDORF 213 WADSWORTH DR MANKATO, MN 56001
BRIAN & JEAN GOETTL 28698 WEST LAKE DR MADISON LAKE, MN 56063	JILL K GORE 28252 RIDGE RD CLEVELAND, MN 56017
SAMUEL K GORE 28168 CEDAR TRL CLEVELAND, MN 56017	DENNIS & CHERYL GREMS TRUST 212 COLUMBIA ST CLEVELAND, MN 56017
CHAD GRISIM 46549 EVERGREEN LN CLEVELAND, MN 56017	GARY F GUENTZEL 28701 464TH ST CLEVELAND, MN 56017
MARY LOU B GUENTZEL 28635 464TH ST CLEVELAND, MN 56017	MARK & SARAH HALBERT 101 BEAR PATH DR MANKATO, MN 56001
CAROL J HALL C/O LYNN HALL FERGUSON 46309 US HWY 169 SAINT PETER, MN 56082	GREG HALVORSON & BRENDA REHBEIN 32598 633TH AVE GIBBON, MN 55335
JADE & CHANCE HALVORSON 27938 MAPLE LN MADISON LAKE, MN 56063	LEON J HANLEY 1065 93RD ST E INVER GROVE HEIGHTS, MN 55077
MIKE W HANSON & v 718 SHERMAN ST N MANKATO, MN 56003	THOMAS L HAWKINS 65594 430TH ST ODIN, MN 56160
LEE B & JUDY A HENDLEY 28824 WEST LAKE DR MADISON LAKE, MN 56063	WILLIAM & NANCY HENSEL TRUST 46730 KIMBERLY RD MADISON LAKE, MN 56063
MITCHELL E & VICTORIA HEUN 46507 EVERGREEN LN CLEVELAND, MN 56017	KATHLEEN A HILL 2913 EAGLEWOOD LN MISSOURI VALLEY, IA 51555
RONALD R & STEPHANIE HILL 28601 HUB DR MADISON LAKE, MN 56063	SHIRLEY J HILPIPRE ET AL 701 WEST ST PO BOX 216 ELMORE, MN 56027

ROBBY & MELANIE HINIKER 33430 490TH ST KASOTA, MN 56050	HOBSKEETS HOLDINGS LLC 120 NORTH AUGUSTA CT MANKATO, MN 56001
KENNETH O HOHENSTEIN TRUST 46413 EVERGREEN LN CLEVELAND, MN 56017	ALAN A & CATHERINE A HOLM 702 2ND AVE GOODHUE, MN 55027
ROBERT C HOVICK 15332 WILDERNESS RIDGE RD NW PRIOR LAKE, MN 55372	DAVID R & CAROL JACOBSON 330 10TH AVE SW WELLS, MN 56097
BRUCE D & RHONDA JOHNSON 46676 KIMBERLY RD MADISON LAKE, MN 56063	CULLY & BARBARA JOHNSON 3408 MAPLEWOOD DR ST ANTHONY, MN 55418
DARRELL A & BARBARA J JOHNSON 17543 OLD HWY 68 SILOAM SPRINGS, AR 72761	PELL E & THERESA JOHNSON TRUST 709 9TH ST N ST PETER, MN 56082
WILLIAM O JOHNSON 46650 EVERGREEN LN CLEVELAND, MN 56017	RALPH & MARY JOHNSTON TRUST 3914 N COCONINO AVE FLORENCE, AZ 85132
TODD & AMBER T KARELS 28060 CEDAR TRAIL CT CLEVELAND, MN 56017	MATHEW C KINNE 6160 ITHACA LN N MINNEAPOLIS, MN 55446
ADAM KOPESKY & 33546 15TH ST JANESVILLE, MN 56048	TERRANCE G & SANDRA KRANZ 46566 EVERGREEN LN CLEVELAND, MN 56017
NANCY HELEN KRENIK 5406 NORTH SHORE CT MADISON LAKE, MN 56063	STEVEN W KRENIK 27397 470TH ST MADISON LAKE, MN 56063
DAVID K KREUTER & KATHRYN E BOHLKE 4283 HAWKSBURY CIR EAGAN, MN 55123	STEVE A & SANDRA K KROEGER 28912 WEST LAKE DR MADISON LAKE, MN 56063
JEROME R KROYER 2875 180TH ST PRIOR LAKE, MN 55372	ROY R & BETTY J LABORDE 18877 STATE HWY 66 GOOD THUNDER, MN 56037
BRADLEY D & JEAN F LANCE 4610 FOXBERRY DR MEDINA, MN 55340	JOHN C & MANDELEIN LANDKAMER 27605 MAPLE LN MADISON LAKE, MN 56063
BRIAN A & JODY SHELTON LANGE 1728 MARY LN N MANKATO, MN 56003	PAULA K LARSON ET AL 3601 WOODBINE LN N BROOKLYN PARK, MN 55429
ROGER R LAUFLE 4458 LAKESHORE TER EAGAN, MN 55122	MARK L & CAROL D LAWRENCE 29043 SUNSET AVE MADISON LAKE, MN 56063

LE SUEUR COUNTY 88 PARK AVE S LE CENTER, MN 56057	JOHN A MACK III & CHRISTINA E MACK 2280 HELENA AVE OAKDALE, MN 55128
GARRY & NANCY MANN ET AL 48663 421ST AVE N MANKATO, MN 56003	PAUL & STEVEN MAUS 119 SUNNY VIEW DR NORTHFIELD, MN 55057
RICHARD & DONNA MAUS 119 SUNNY VIEW DR NORTHFIELD, MN 55057	RONALD A MCCABE 28528 WEST LAKE DR MADISON LAKE, MN 56063
DEANNE M MCCASHIN 1832 OAK KNOLL DR NE ALEXANDRIA, MN 56308	MARK A MENKE & GLENDA D KELM 29035 SUNSET AVE MADISON LAKE, MN 56063
BRIAN & SANDRA MENSING TRUST 2010 COTTAGE TRL N MANKATO, MN 56003	DONALD W & EILEEN A MENSING 28232 CEDAR TRL CLEVELAND, MN 56017
RICHARD E & JERI ANN MILLER 28135 CEDAR TRL CLEVELAND, MN 56017	GARTH MOELLER ET AL 732 RABBIT RD SAINT PETER, MN 56082
GREGORY & NANCY MORELL 860 157TH AVE NE HAM LAKE, MN 55304	JOSEPH R MURILLA 21588 598TH AVE EAGLE LAKE, MN 56024
PAULINE NEVA 3345 HARDSCRABBLE RD MOUND, MN 55364	BENJAMIN & SAMANTHA OLSEN 46537 EVERGREEN LN CLEVELAND, MN 56017
TROY A OLSEN & KAYLA C POWERS 46611 EVERGREEN LN CLEVELAND, MN 56017	JAMES C & SHARON I OLSON 309 BELGRADE AVE MANKATO, MN 56001
STEVEN OLSON 28153 CEDAR TRL CLEVELAND, MN 56017	BRUCE E & LINDA M ORTH 46648 KIMBERLY RD MADISON LAKE, MN 56063
MATTHEW L OSWALD 3002 MUSTANG DR MADISON LAKE, MN 56063	JOHN & BARBARA PAGE 27825 464TH ST CLEVELAND, MN 56017
KEVIN & JUDITH PATTERSON 46770 KIMBERLY RD MADISON LAKE, MN 56063	CINDY ANN PELZ 46858 MAPLE DR MADISON LAKE, MN 56063
PETERSON FAMILY TRUST C/O PHILIP & JILL PETERSON 28265 464TH ST CLEVELAND, MN 56017	KIMBERLY A PETERSON & TIMOTHY A DITTMAR 28195 CEDAR TRL CLEVELAND, MN 56017
BRIAN J & CONNIE PHILLIPS 114 MAIN ST CLEVELAND, MN 56017	BRUCE M PHILLOPS 46584 CEDAR CIR CLEVELAND, MN 56017

PATRICIA LEE PIERCE 20386 607TH AVE EAGLE LAKE, MN 56024	MARSHALL L POWELL 28253 RIDGE RD CLEVELAND, MN 56017
PATRICIA R PRINCE 46566 CEDAR CIR CLEVELAND, MN 56017	BRIAN & ANN PURRINGTON TRUST 9392 WHITE BIRCH CT N ORONOCO, MN 55960
GARRY L & PHYLLIS A PURVIS 18 13TH ST NE KASSON, MN 55944	DONNA L RAUSCH REV TRUST 46578 CEDAR CIR CLEVELAND, MN 56017
GERALD F RAUSCH REV TRUST 46578 CEDAR CIR CLEVELAND, MN 56017	DARWIN L & SHELLEY A REICKS 40526 RIVER BLUFF LN ST PETER, MN 56082
GLORIA JANE ROBINSON 46626 EVERGREEN LN CLEVELAND, MN 56017	AARON E & JULIE D ROGERS C/O JEAN CARLSON 65594 430TH ST ODIN, MN 56160
CORY J ROHLFING ET AL 46497 EVERGREEN LN CLEVELAND, MN 56017	MITCHEL J ROHLFING 27794 470TH ST MADISON LAKE, MN 56063
RICHARD A ROHLFING 28661 HUB DR MADISON LAKE, MN 56063	STEVEN J & LYNELL ROHLFING 28020 MAPLE LN MADISON LAKE, MN 56063
ZITA M ROHLFING PO BOX 37 CLEVELAND, MN 56017	RITA ROSENBERGER JAY N ROSENBERGER 11238 VESSEY CIR MINNEAPOLIS, MN 55437
ROY'S LANDING HOMEOWNERS ASSN C/O MELANIE FREDERICK 46616 BEAVER DAM RD CLEVELAND, MN 56017	RUSSELL FAMILY TRUST C/O JUDITH L RUSSELL 46298 CEDAR TREE LN CLEVELAND, MN 56017
LAUREN & KELLIE SATROM 1708 RED IRON LN ST PETER, MN 56082	JOEL & MELISSA SCHAEFER TRUST 46479 EVERGREEN LN CLEVELAND, MN 56017
TIMOTHY & SHEILA RAE SCHAFER 46538 CEDAR CIR CLEVELAND, MN 56017	GARY D & GERALDINE L SCHMIDT 2148 EAGLE RIDGE DR N MANKATO, MN 56003
AARON & HEIDI SCHMITZ 2370 BRITWOOD LN SW ROCHESTER, MN 55902	DALE & BETH SCHMOLL 28689 HUB DR MADISON LAKE, MN 56063
WILLIAM SCHULENBURG 28226 RIDGE RD CLEVELAND, MN 56017	PETER A SCHULTZ 28409 464TH ST CLEVELAND, MN 56017
RUDOLF & SANDRA SCHUMACHER 46512 CEDAR CIR CLEVELAND, MN 56017	DALE E & DIANA SIMONSON 46290 ARTHUR DR CLEVELAND, MN 56017

JEFFREY & AHMELIE SKISTAD 46743 MELANIE DR MADISON LAKE, MN 56063	WARREN S & JUDITH L SKISTAD 46753 MELANIE DR MADISON LAKE, MN 56063
JEFFREY P & JILL A STEFFEN 40439 LAKE VOLNEY LN LE CENTER, MN 56057	THOMAS A & JEANNE STENSRUDE 28542 WEST LAKE DR MADISON LAKE, MN 56063
DONNA RAE STRAND 46595 EVERGREEN LN CLEVELAND, MN 56017	R VICTOR & SHARON SWENSON 363 CARDINAL DR MANKATO, MN 56001
CHARLES H THEIS 10504 50TH ST W VESELI, MN 55046	LARRY W & JODY R THOMPSON 500 11TH AVE NW WASECA, MN 56093
LEIF C & COLEEN A THOMPSON 46635 EVERGREEN LN CLEVELAND, MN 56017	CURTIS & RALEEN TOLZMANN 46590 EVERGREEN LN CLEVELAND, MN 56017
TOMAHAWK PT LOT OWNERS ASSOC C/O LARRY THOMPSON 28196 CEDAR TRL CLEVELAND, MN 56017	ELDON E TUREK 15765 LEROY AVE KILKENNY, MN 56052
JOHN R ULRICH 2107 N HIGHLAND AVE NEW ULM, MN 56073	LLOYD J & RUTH A VISKOCIL 204 VINE AVE E MONTGOMERY, MN 56069
DOUGLAS F & PAMELA VOIT 404 2ND ST CLEVELAND, MN 56017	BRYAN & MARY L WARMKA 28246 CEDAR TRL CLEVELAND, MN 56017
LARRY & PAULA WASMUND 28275 464TH ST CLEVELAND, MN 56017	DAVID C & KAY WENDELSCHAFER 46623 EVERGREEN LN CLEVELAND, MN 56017
NINA L WEST TRUST 46451 EVERGREEN LN CLEVELAND, MN 56017	STEVEN & MARIANNE WESTMORELAND 46834 KIMBERLY RD MADISON LAKE, MN 56063
THOMAS L WETZELL JR & PAMELA K WETZELL 46577 EVERGREEN LN CLEVELAND, MN 56017	KEVIN S WIEBOLD 28060 470TH ST MADISON LAKE, MN 56063
RICHARD L WILDE SR 321 RICE ST N KASOTA, MN 56050	WILDWOOD MAPLE INC C/O JOAN WILLS 46850 MAPLE DR MADISON LAKE, MN 56063
DALE F & JOANNE V WILLS TRUST 46850 MAPLE DR MADISON LAKE, MN 56063	STANLEY N & DEBORAH WILLS 28228 CEDAR TRL CLEVELAND, MN 56017
ERIC & VICKI WILNER 46274 CEDAR TREE LN CLEVELAND, MN 56017	ROBERT J & AUDREY J WINKLER 313 S AGENCY ST EAGLE LAKE, MN 56024

DAVID & LINDA WITTE 1304 ROCKBEND PKWY SAINT PETER, MN 56082	DOHN & BECKY WITTE 46847 RIDGETOP RD MADISON LAKE, MN 56063
MICHAEL A WOITAS 46405 EVERGREEN LN CLEVELAND, MN 56017	STEVEN C WOLF 46519 EVERGREEN LN CLEVELAND, MN 56017
BRYAN & KELLY WOOD 70 TELEMARK DR MANKATO, MN 56001	JOHN R & NANCY A WOODS 46513 281ST AVE CLEVELAND, MN 56017
ANTHONY A & LAURA A WYNOHRAD 3406 KIRKWOOD AVE OSAGE, IA 50461	STANLEY & SUSAN ZIEBARTH 28780 WEST LAKE DR MADISON LAKE, MN 56063

Federal agencies:

ATTN: Field Supervisor
U.S. Fish and Wildlife Service
Twin Cities Field Office
4101 American Boulevard East
Bloomington, MN 55425-1665

ATTN: Environmental Compliance Chief
U.S. Army Corps of Engineers
St. Paul District
180 Fifth Street East, Suite 700
St. Paul, MN 55101-1678

ATTN: Regional Environmental Officer
Federal Emergency Management Agency
Region V Office
536 South Clark Street, 6th Floor
Chicago, IL 60605

State agencies:

ATTN: Environmental Review Supervisor
MN Department of Natural Resources
Division of Ecological and Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155 -4025

ATTN: Manager of Government Programs and Compliance
MN Historical Society
Minnesota Historic Preservation Office
345 West Kellogg Boulevard
St. Paul, MN 55102-1906

ATTN: Cultural Resource Director
MN Indian Affairs Council
161 St. Anthony Avenue, Suite 919
St. Paul, MN 55103

MPCA regional office(s):

MPCA Mankato Office 12 Civic Center Plaza, Suite 2165 Mankato, MN 56001	MPCA Rochester Office 18 Wood Lake Drive SE Rochester, MN 55904

The following agencies have received a comment solicitation letter from the Project Proposer:

ATTN: Environmental Review Supervisor
MN Department of Natural Resources
Division of Ecological and Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155 -4025

ATTN: Manager of Government Programs and Compliance
MN Historical Society
Minnesota Historic Preservation Office
345 West Kellogg Boulevard
St. Paul, MN 55102-1906

ATTN: Cultural Resource Director
MN Indian Affairs Council
161 St. Anthony Avenue, Suite 919
St. Paul, MN 55103

Appendix K-1: Tomahawk-Evergreen Feasibility Study

Appendix K-2: West Lake Drive Feasibility Study

Appendix K-3: Maple Lane Feasibility Study