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**CITY OF SAINT CHARLES
WELLHEAD PROTECTION PLAN PART 2**

Wellhead Protection Plan
In Accordance With
MN Rules Chapters 4720.5100-4720.5590

Submitted to:

City of Saint Charles
830 Whitewater Ave
Saint Charles, MN 55972

September 2014 – Final

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Public Water Supply Profile

PUBLIC WATER SUPPLY

Name: City of Saint Charles
Address: 830 Whitewater Avenue
Saint Charles, MN 55972
Phone Number: 507-932-3020
Email: kak@stcharlesmn.org

WELLHEAD PROTECTION MANAGER

Name: Nick Koverman
City Administrator
Address: 830 Whitewater Avenue
Saint Charles, MN 55972
Phone Number: 507-932-3020
Email: nkoverman@stcharlesmn.org

CONSULTANT

Name: Nathan Anderson, P.E.
Address: WHKS
2905 South Broadway
Rochester, MN 55904
Phone Number: 507-288-3923
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GENERAL INFORMATION

Unique Well Numbers: 219162 (Well 3)
161426 (Well 4)
161430 (Well 5)

County: Winona
Population Served: ~3700
Connections: ~1425



Documentation List

STEP

DATE PERFORMED

Scoping II Meeting Held

August 15th, 2013

Scoping Decision Notice Received

September 9th, 2013

Remaining Portion of Plan Submitted to LGU's

Review Comments Considered

Public Hearing Conducted

Remaining Portion of WHP Plan Submitted

Approval Review Notice Received

Abbreviations

BMP	Best Management Practices
BWSR	Board of Water and Soil Resources
CRP	Conservation Reserve Program
DNR	MN Department of Natural Resources
DWSMA	Drinking Water Supply Management Area
ELRM	Environment and Land Resource Management
EPA	Environmental Protection Agency
GIS	Geographic Information Systems
HWGP	Hazardous Waste Generator Permit
ISTS	Individual Sewage Treatment Systems
IWMZ	Inner Wellhead Management Zone
LGU	Local Government Unit
LUST	Leaking Underground Storage Tanks
LWMP	Local Water Management Plan
MCL	Maximum Containment Level
MDA	MN Department of Agriculture
MDH	MN Department of Health
MG/Y	Million Gallons per year
MN	Minnesota
MNDOT	MN Department of Transportation
MPCA	MN Pollution Control Agency
MRWA	MN Rural Water Association
NRCS	Natural Resources Conservation Services
NWI	National Wetlands Inventory
OBWEL	Observation Well
OHW	Ordinary High Water Level
PCSI	Potential Contaminant Source Inventory
PWS	Public Water Supply
RST	Registered Storage Tank
SWCD	Soil & Water Conservation District
ST	Storage Tank
STOR	Ag Chemical Storage Permit
SWUDS	State Water Use Permit
TMDL	Total Maximum Daily Load
TOT	Time-of-travel
UST	Underground Storage Tank
VIC	Voluntary Closure
WHP	Wellhead Protection
WHPA	Wellhead Protection Area
WHPP	Wellhead Protection Plan

Executive Summary

This portion of the wellhead protection plan for the City of Saint Charles is commonly referred to as Part 2, and includes:

- Potential Contaminant Source Inventory
- Plan of Action
- Contingency Strategy/Alternative Water Supply
- Evaluation Program

The delineation of the wellhead protection area, the drinking water supply management area, and the vulnerability assessments are described in the WHP plan part 1. Part 1 was approved by the Minnesota Department of Health in April of 2013. A copy of part 1 of the plan is on file with the MDH and City of Saint Charles. The boundaries of the WHPA and DWSMA as developed in part 1 are shown in Figure 1, as well as the areas of moderate and low vulnerability.

Part 2 is comprised of eight chapters and three appendices. Chapter 1 summarizes the data elements that were reviewed and assesses the implications of these data elements on the use of the wells, the quality and quantity of the water supplying the wells, and the land and groundwater uses in the DWSMA. Chapter 2 identifies and describes expected changes to the physical environment, land use, and groundwater that may occur over the next ten years within the DWSMA. In addition, the chapter discusses possible impacts on the aquifer from these expected changes as well as the influence of water and land government programs and regulations. This Chapter also discusses the administrative, technical, and financial considerations of the Public Water Supplier and DWSMA property owners in regard to protecting the source water. Chapter 3 describes the issues, problems and opportunities related to water and land uses that were identified during the planning process. Chapter 4 states the goals for present and future water use and land uses. Chapter 5 indicates the objectives of the plan and the measures that will be undertaken to meet those objectives. Chapter 6 describes the strategy that will be used to evaluate the progress in implementing the plan. A contingency strategy for an alternative water supply in case of a disruption of the water supply can be found in Chapter 7. Chapter 8 summarizes the responsibilities and procedures for providing future amendments to the plan.

Chapter 1 – Data Elements & Assessments

Overview

In accordance with Minnesota Rules Chapter 4720.5200, the following sections present the required data elements for the City of Saint Charles wellhead and source water protection program. These data elements were outlined in the Minnesota Department of Health Second Scoping Decision Notice dated September 9th, 2013.

Required Data Elements

Physical Environment Data Elements

1.0 Precipitation

Precipitation data elements are not required for this submittal as indicated in correspondence from the MDH dated September 9th, 2013.

2.0 Geology

This data element was required for, and was presented in, Part 1 of the Wellhead Protection Plan. A copy of Part 1 of this plan is on file with the MDH and the City of Saint Charles. The subsurface data used in the Part I report and the determination of subsurface stratigraphic relationships were derived from the use of public-domain well records and local and regional geologic studies and publications. Bedrock geology of the area is presented in Figure 2. The geologic conditions present below the City of Saint Charles are not anticipated to change during the life of this plan. During the assignment of DWSMA vulnerability in Part 1, the geologic conditions were assessed in more detail. The areas of moderate vulnerability have geologic conditions that provide a moderate level of protection to the City's water supply; however opportunities for contamination from the influence of surface water are present. The moderate vulnerability assessment was primarily based on tritium values detected in samples from Well No. 3. The areas of low vulnerability have geologic conditions that provide a higher level of protection to the City's water supply.

3.0 Soils

Soils data elements are not required for this submittal as indicated in correspondence from the MDH dated September 9th, 2013.

4.0 Water Resources

Water resources data elements are not required for this submittal as indicated in correspondence from the MDH dated September 9th, 2013.

Land Use Data Elements

5.0 Land Use

The DWSMA consists of approximately 1,796 acres of land. The DWSMA extends beyond the City of Saint Charles' boundaries, into unincorporated areas in both Winona and Olmsted

Counties. Figure 3 shows a map of existing parcels and political boundaries within the DWSMA. Figure 4 shows the existing zoning within the DWSMA. Zoning in the DWSMA was derived from a combination of zoning within the City of Saint Charles, and zoning for Winona and Olmsted Counties. Figure 5 shows the 2006 National Land Cover Database (NLCD) land use within the DWSMA. The predominant land use in the DWSMA is cultivated crops and residential. Table 1-1 summarizes the land use according to the 2006 NLCD data set.

Table 1-1: Land Use

Land Use	Percent of DWSMA
Developed, Open Space	12.8%
Developed, Low Intensity	18.7%
Developed, Medium Intensity	4.7%
Developed, High Intensity	2.2%
Deciduous Forest	11.1%
Evergreen Forest	0.1%
Grassland/Herbaceous	6.8%
Pasture/Hay	11.7%
Cultivated Crops	31.9%

Existing wells and potential sources of contamination located within the DWSMA were reviewed by the WHP Team. The following summarizes the potential contaminant sources inventoried and where the information was obtained.

Wells – Several sources of information were used to develop the inventory of wells. These sources included MDH Well Management Database, MDH County Well Index, review of City files, SWUDS database, aerial imagery, and historical documents including Sanborn Fire Insurance Maps. Local knowledge of the WHP team was also critical in identifying wells. In total there were 36 wells identified in the inventory. A summary of the wells within the DWSMA are shown in Table 1-2.

Table 1-2: Inventory of Wells

Well Status	No. in DWSMA	No. in IWMZ
Active	20	0
Sealed	11	1
Unknown	5	0
Total	36	1

Figure 6 shows the locations of identified wells in the DWSMA. A list of individual wells with additional information is provided in Appendix A.

Potential Contaminate Sources – Potential contaminate sources were reviewed in accordance with the 2nd scoping meeting decision notice for DWSMA’s with moderate vulnerability. Potential contaminate sources reviewed and identified included, LUSTs, USTs, ASTs, STORs, PCSs, Spills, and potential Class V injection wells. Potential contaminate source information was obtained from a variety of sources including the MPCA tank database, the MPCA “What’s In My Neighborhood” database, MDA “What’s In My Neighborhood” Ag Interactive Mapping database, and MDH License Information. In addition, local knowledge of the WHP team was

used to identify sites and pinpoint locations and status. A summary of the potential contaminate sources is shown in Table 1-3.

Table 1-3: PCSI Summary

	Status	Total in DWSMA	Total in IWMZ
Leak Sites (LUSTs)	Active	1	0
Tank Site	Active	8	0
Solid Waste Site	Active	1	0
Storage Sites	Active	1	0
Cleanup Sites (PCS)	Active	1	0
Leak Sites (LUSTs)	Inactive	6	0
Tank Site	Inactive	10	0

Existing land uses, management and local land use controls within the IWMZ or 200' radius around the public water supply wells and the immediate one year time of travel area was reviewed and considered by the WHP team. This is done to identify land use issues and related potential contaminants which may have the most immediate impact upon the public water supply wells. The WHP team discussed the importance of on-going monitoring for land use changes and potential contaminants near the public water supply wells and awareness of State Well Code isolation distances and need to maintain these setback requirements. Existing land uses, potential contaminants, and future land use changes were also considered within the one year time of travel. Figure 7 shows the location of potential contaminant sources. A list of potential contaminate sources with additional site information is provided Appendix B. The IWMZ – Potential Contaminate Source Inventory Reports are also included in Appendix B.

6.0 Public Utility Services

Public Utilities and ground transportation corridors provide a potential source of contamination due to accidental spills and discharges. Examples of these generally are: roadways, train tracks, pipeline corridors, and water and sewer systems. Maps of public utilities and transportation corridors are provided in the following figures:

- Transportation Plan, Figure 8
- Storm sewers, Figure 9
- Sanitary Sewers, Figure 10

Water Quantity Data Elements

7.0 Surface Water Quantity

Surface water Quantity data elements are not required for this submittal as indicated in correspondence from the MDH dated September 9th, 2013.

8.0 Groundwater Quantity

Groundwater levels in the source water aquifers appear stable and adequate for the amounts that the City of Saint Charles is currently permitted to withdraw under the water appropriation program administered by the MNDNR. An appropriation permit is required for any person or

business that uses more than 10,000 gallons of water per day or 1,000,000 gallons per year. The permits are cataloged in the State Water Use Data System. This database was queried for Part I of the Plan to identify high-capacity wells that could potentially influence or impact the local groundwater flow fields and the City's municipal wells. There are no additional high-capacity well located within the DWSMA, and there are no known well interference issues. At this time it appears that the source water aquifers used by the public water supply system are sufficient and adequate in quantity and capacity to provide water to the City during the life of this plan and into the future. At this time, there are no indications that the performance of source water aquifers are decreasing or degrading in general.

Water Quality Data Elements

9.0 Surface Water Quality

Surface water Quality data elements are not required for this submittal as indicated in correspondence from the MDH dated September 9th, 2013.

10.0 Groundwater Quality

Groundwater quality for the public water supply is generally considered high. The water in the City of Saint Charles's supply system currently meets or exceeds all state and federal requirements and limits for regulated compounds and chemicals. Samples from the City's wells and public water supply system are routinely collected and analyzed by the MDH as required under the Minnesota Drinking Water Protection Program and the federal Safe Drinking Water Act. The samples are tested for microorganisms, inorganic compounds, metals, organic and synthetic chemicals, pesticides, herbicides, and radioactive pollutants. Detectable levels of tritium are present in Well No. 3, indicating recharge of recent water from the surface. The City is required by the federal government to publish and distribute an annual Drinking Water Consumer Confidence Report to all citizens using its public water supply system. The City's 2012 Consumer Confidence Report is available at City Hall for review. A copy of the 2012 Consumer Confidence Report is also provided in Appendix C.

Assessment of Data Elements

Use of the Well

Three City wells provide water for residential, commercial, institutional and industrial use. The City operates a public water supply system consisting of three drilled wells which range in depth from 667 to 736 feet. The physical environment of each well indicates areas the City needs to address in its WHP. The geology within the DWSMA is discussed above and has resulted in the aquifer being characterized as moderately vulnerable. The use of the wells has not been affected by this classification. The land use changes and the utilities associated with additional development also will not affect how each well is used. The groundwater quantity will not currently affect the use of the wells, and the City is not approaching the DNR allotment for withdrawal from any of its wells. The groundwater quality is currently excellent and is not expected to change. The use of the wells will not be affected by the current groundwater quality.

Wellhead Protection Area Delineation Criteria

The wellhead protection area was delineated in Part 1 of this plan by Barr Engineering. The five criteria used to delineate the WHPA, specified in MN Rule 4720, are as follows:

- a) Time of Travel
- b) Flow Boundaries
- c) Daily Volume of Water Pumped
- d) Groundwater Flow Field
- e) Aquifer Transmissivity

For more details regarding the delineation criteria, see Part 1 of this plan.

The Quality and Quantity of Water Supplying the Public Water Supply Wells

The water from the public water supply has never exceeded Primary Drinking water standards. The three public wells are producing less water per year than permitted by the Minnesota Department of Natural Resources. The City's water usage hit a peak in 2008, and then declined sharply due to the loss of a major water user. Current use rates are steady and it is anticipated that growth within the next 10 years will not result in significant increases. With proper management the existing and future conditions in and around the DWSMA are not anticipated to impact either the quality or quantity of water from the Public Water Supply Wells.

The Land and Groundwater Uses in the Drinking Water Supply Management Area

The area within the DWSMA is primarily agricultural, residential, and underdeveloped land. Agricultural practices such as manure management, fertilizer application rates, and herbicide/pesticide application will likely not play a significant role in protecting the City's groundwater supply; however these land uses should be monitored due to detectable levels of tritium in Well No. 3. Agricultural practices primarily take place outside of the City limits so the City will need to work with the Counties and agricultural community partners to have meaningful impact in these areas. The area of the DWSMA located within the City limits consists mainly of residential and commercial with some industrial. Educating landowners about the importance of proper management of hazardous wastes, chemicals and fertilizers, turf management, tank management, and monitoring are issues of concern and will be the focus of management strategies in these areas.

Major changes in land usage over the lifetime of this plan are not anticipated, however a 1% to 3% increase in residential area (with corresponding loss to agricultural and open space), is likely due to residential development. Most of the newly developed areas will likely have City water and sewer and will not add wells or septic systems into the DWSMA. The development may remove several wells and septic systems currently in and around the DWSMA because of extending services into traditionally rural areas. As development occurs the focus in these areas should be proper stormwater runoff management.

Transportation related contaminants such as gasoline, diesel fuel, and road salt, could potentially impact the City's groundwater supply. Transportation contaminants also include the possibility of a spill of hazardous materials while being transported, which then may reach groundwater. The City currently has an emergency response plan that deals with this potential. One method of preventing transportation-related contaminants from reaching groundwater may be to have lined storm water treatment ponds in transportation corridors.

Chapter 2 – Impacts of Changes on Public Water Supply Wells

This section identifies and describes the anticipated changes on the City's public water supply wells over the period of this plan. This section then identifies the likely impacts of these and other changes according to MN Rule 4720.5220.

Identification and Description of Changes

Physical Environment

Large-scale changes in the physical environment within the DWSMA are not anticipated during the 10-year period that this plan is in effect. The hydrogeologic conditions of the source water aquifers are such that changes in physical environment could have some effect on the source water aquifers within the DWSMA, however significant changes are unlikely.

Land Use

As stated in Chapter 1, significant changes in land use for the period of this plan are not anticipated. Modest increases in residential and commercial area (on the order of 1% to 3%) are likely due to new development within the City of Saint Charles. It is not anticipated that there will be significant changes to agricultural practices. Existing surface water impairments in the Whitewater watershed could potentially result in a decrease in manure and fertilizer application through regulation, which would reduce the potential for groundwater contamination.

Surface Water Conditions

No significant changes in surface water conditions are anticipated during the period that this plan is in effect. Existing surface waters impairments may result in increased regulation that is intended to improve surface water conditions. Increased surface water regulation may help improve groundwater quality as a link between the land surface and groundwater within the DWSMA has been established.

Groundwater Conditions

The City of Saint Charles currently provides good quality and sufficient quantity of water to its residents. Current groundwater withdrawals do not appear to be having a negative impact on the source-water aquifers. Major increases in groundwater use beyond historic use levels are not anticipated, and there are no known use conflicts. No significant changes are anticipated in the ground water supply.

Impacts of Changes

Physical Environment

Impacts from changes to the physical environment are expected to be minimal as limited changes are anticipated as described above.

Land Use

With a modest increase in developed area, potential contaminants in the future may come from commercial businesses improperly handling hazardous wastes, sewer leaks, or improper private landowner turf management. With regard to agricultural practices, the City of Saint Charles is unable to effectively control land use changes beyond its own municipal boundaries and will be dependent upon neighboring communities and government units to assist in protecting the source water aquifers used by the City. Land use changes that may potentially impact the aquifer such as hazardous waste sites or underground storage tanks need to be addressed in zoning requirements and through coordination with other government units.

Surface Water Conditions

Impacts from changes in surface water conditions are expected to be minimal as limited changes are anticipated as described above.

Groundwater Conditions

Impacts from changes in groundwater conditions are expected to be minimal as limited changes are anticipated as described above.

Water Use

The City of Saint Charles does not expect that its water use will change significantly in the next 10 years. The City will continue to evaluate its water use patterns as part of its comprehensive planning activities and will incorporate these results into future revisions of this plan.

Influence of Existing Water and Land Government Programs and Regulations

The City of Saint Charles has regulatory jurisdiction over the part of the DWSMA within the City limits through local and land use zoning ordinances. However, a significant portion of the DWSMA falls under the jurisdiction of Winona and Olmsted Counties. The City will be working with these Counties to coordinate management actions within the DWSMA. At the State level of government the MPCA is the agency responsible for regulating and overseeing most of the potential contaminant sources related to the environment such as hazardous waste generators, underground and aboveground storage tanks, spills, leaking underground storage tank sites, voluntary investigation and cleanup sites, dumps, Superfund Sites, etc. The MDA is responsible for regulating facilities, spills, and releases related to agriculture-based chemicals and substances (i.e. manufacturers, retailers, or users of pesticides, herbicides, fertilizers, etc.). The City will continue to rely on these State agencies and their programs and policies to enforce existing State regulations.

Administrative, Technical, and Financial Considerations

For this Plan to be effective:

1. The City will need to identify and document potential sources of contamination to prevent contamination of its source water aquifers.
2. The City will need to raise public awareness of the issues affecting its drinking water supply through public educational programs.

3. Administrative duties will remain with the Wellhead Protection Manager, who will report to the City Council, coordinate the implementation of wellhead protection management action plans, and conduct regular meetings.
4. Support of wellhead and source water protection activities will be provided by funds from the City of Saint Charles utility water operating fund. Other sources of funding or in-kind services to help achieve the goals set forth in this plan may include:
 - a. MDH wellhead implementation grants;
 - b. the MPCA and MDA and their environmental contamination prevention and cleanup programs;
 - c. the MDH Drinking Water Protection Section in monitoring the quality of the public water supply system;
 - d. MDH assistance with determining the correct measures for sealing unused wells, constructing new wells, and requiring the sealing of unused wells if this becomes necessary.

The costs of implementing wellhead and source water protection activities will be evaluated on an annual basis to determine whether the original cost estimates match the scope of the management practices identified in this part of the plan. The City will discuss changes in plan implementation costs with MDH to determine the availability of state or federal funding for offsetting increased costs of plan implementation.

Chapter 3 – Issues, Problems and Opportunities

This section presents the issues, problems, and opportunities concerning land use issues related to the aquifer, well water, and DWSMA in accordance with MN Rule 4720.5230.

Issues, Problems And Opportunities Related To:

The Aquifer

The source-water aquifer was determined to be moderately vulnerable due to the presence of tritium in recent water samples. The presence of tritium implies that water quality could be adversely impacted by land use activities, as there is an established connection between the groundwater aquifer and the land surface. Land use and zoning regulations within the DWSMA should discourage the type of activities that may cause contamination of the aquifer. Through cooperation with other government units and the MDH steps can and should be taken to protect the drinking water quality of the aquifer.

The Water Well

Land use activities and spills at or near the surface have not had a negative impact on the quality of the well water thus far. Although a majority of the DWSMA has traditionally been used for agricultural purposes, the quality of the well water does not appear to be sensitive to agricultural land use activities. However, contamination of the aquifer from land use impacts must be considered to have the potential to impact the quality of the water from the public supply wells. The City of Saint Charles has the opportunity to track water quality through their existing program of water sampling and analysis. Should a contaminant release occur or existing contamination be discovered, the risk to the well water will be evaluated based on the nature of the contaminant(s) and the estimated travel time to the public supply well(s). If additional high capacity wells are added within the DWSMA the WHPA may have to be re-delineated. The placement of additional high-capacity wells, increased pumping from existing wells, or significant changes in current groundwater appropriations within the DWSMA may have an impact on groundwater availability to all users, or increased risk that contamination may enter the part of the aquifer used by the public water supply wells. The City should work with the MDH and DNR to assist with location and construction of any proposed high capacity wells.

The DWSMA

This plan is primarily concerned with potential contaminant sources near the public water supply wells and within the DWSMA that pose a risk for causing groundwater contamination. Based on the potential contaminant source inventory, these types of sites, facilities, land uses, or activities include: leaking underground storage tank sites, tank sites, potential spill sites, and other wells. In addition to point sources, non-point sources of contamination (such as fertilizer and pesticide application) may also pose a threat to the City's source water supply.

With regard to land use within the DWSMA the City of Saint Charles has limited capabilities to regulate activities outside of the City limits. The City will need to work with other local government units to promote land use activities and coordinate efforts that will protect the water supply. Within the City limits the City will need to consider future zoning requirements in order to protect the water supply.

Identification of:

Problems and Opportunities Disclosed at Public Meetings and in Written Comment

At the beginning of the planning process other local units of government (LUG's) were identified and informed that the City of Saint Charles was beginning the wellhead protection planning process. Each unit of government was also sent a copy of the City's delineated WHPA, DWSMA and vulnerability assessment. No comments from the LUG's were received concerning the delineations or vulnerability assessments.

A draft copy of this plan (Part 2) was submitted to local units of government for their review and comment on May 15, 2014. Copies of comments received from LUGs are provided in Appendix D. All comments were considered and, when deemed appropriate, responses were incorporated into this version of the Wellhead Protection Plan. The general public was also given opportunities to participate in the planning process and to comment at the Public Informational Meeting and Public Hearing following approval of Part 1 of this Plan. No concerns from the general public have been expressed at this time. A copy of the wellhead protection plan is kept on file with the City for public review. A public hearing was held on August 26, 2014 as part of the regular City Council meeting. At the meeting, no comments were received from the general public. A copy of the hearing notice and LGU letter is included in Appendix D.

Data Elements

The State's Wellhead Protection Rule requires existing information be utilized in developing the initial WHP Plan. There is a limited amount of subsurface information available to define local groundwater flow conditions and the groundwater chemistry of the aquifer. Much of the data collected and utilized to delineate the City's WHPA and DWSMA, and to determine the vulnerability of the aquifer, comes from large scale, or regional sources and is not localized for the City of Saint Charles. As a result, the delineation of the WHPA represents a composite of capture zones generated by the varying aquifer properties within the limits determined by the MDH. The City plans to continue to collect localized well data and other pertinent information during the life of this WHP Plan. Revisions will be made to the WHP Plan at 10-year intervals as required by State Rule, utilizing updated and more accurate data.

Status and Adequacy of Official Controls, Plans, and Other Local, State, and Federal Programs on Water and Land Use

City land use ordinances, County-wide zoning and septic system ordinances, state well permits, and state groundwater appropriation permits could be used as potential contaminant control tools to manage the numbers of potential contaminants within the DWSMA, if necessary. The City has determined that no additional municipal regulations be imposed at this time. Existing City policies and procedures are adequate to control new wells being proposed within the portion of the DWSMA that exists within City boundaries. The City will continue to provide wellhead protection, public education and good communication with other land owners within the DWSMA. As a management strategy for this plan, the County Water Plan coordinator will be contacted to assist in the writing of grants to help with the cost of well sealing for property owners within the DWSMA. There is a grant in effect specifically for this purpose.

Chapter 4 - Wellhead Protection Goals

This section identifies the goals of this WHP in accordance with MN Rule 4720.5240.

Wellhead Protection Goals

The public water supply is considered to be low to moderately vulnerable to contamination because there appears to be some recharge from the surface occurring within a majority of the DWSMA. The principal potential pathway/sources of contamination to the aquifer are other wells that extend into the aquifer, and above-ground or underground storage tanks. Hazardous waste generators and non-point sources such as agricultural applications on row crops and the storm water runoff are also a concern in the moderately vulnerable portions of the DWSMA's.

The goals and objectives presented in this Chapter are based on the assessment of data elements of the WHPP. These goals were selected using the information gathered and compiled from the WHPA and the DWSMA delineations, the PCSI results, the geologic setting as described in Part 1 of the WHPP, the expected changes in land use and water use to occur within the following ten years, and the anticipated issues, problems and opportunities.

The WHP team identified the following goals to be achieved with the action items contained in this Plan:

1. Maintain the current level of water quality that meets or exceeds all state and federal standards.
2. Increase awareness among public officials, land owners, and the general public about the importance of WHP in protecting the drinking water supply.
3. Protect the aquifer(s) from which the City draws its drinking water.
4. Support ongoing data collection efforts to enhance future WHP activities.

The Wellhead Protection Program will achieve these goals by implementing a management plan that provides a blueprint for Wellhead Protection.

Chapter 5 – Objectives & Plan of Action

This section outlines the objectives and management strategies designed to meet the goals of the WHPP in accordance with MN Rule 4720.5250.

Establishing Priorities

Priorities for the plan of action were established in accordance with the factors identified in MN Rule 4720.5250, Subp. 3. Based upon these factors the WHP team established the following objectives for the action plan:

- A. Well Management – Identify and manage all wells within the DWSMA
- B. Education and Outreach – Inform the public about groundwater issues
- C. Potential Contaminate Source Management – Manage potential contaminate sources within the DWSMA
- D. Monitoring and Data Collection – Collect and share data relating to local groundwater issues

For each objective a set of measures was developed to create the plan of action. The measures listed under each of objectives were ranked and are listed in the order of priority. For example, the first measure listed for each objective is considered a top priority, and each objective carries equal weight.

Plan of Action

Objective A: Well Management – Identify and manage all wells within the DWSMA

WHP Measure A1: Verify, update, and inventory the locations of existing and abandoned wells in the DWMSA, and collect information on well construction/sealing where possible. (Note – the status and records of well sealing were obtained during the writing of this report.)

Source of Action: WHP Team, and MDH, City Council

Cooperator(s): Olmsted & Winona Counties, Well Contractors, MDH, MNDNR, private land owners

Time Frame: Continuous throughout plan. A letter to land owners will be sent in year one (2014) requesting information on known wells.

Estimated Cost: Staff & Consultant time, printing & postage

WHP Measure A2: Promote the sealing of abandoned wells and assist with sealing. The City will send a letter to land owners encouraging them to seal any unused wells. The City will assist in finding funding sources for the land owners, primarily through MDH grant funding.

Source of Action: WHP Team, City Council

Cooperator(s): Winona and Olmsted Counties, private land owners

Time Frame: As opportunities become available

Estimated Cost: Cost share programs, staff time, printing & postage

WHP Measure A3: Request from the MNDNR that information be provided to the City on newly proposed high capacity wells within or near the DWSMA.

Source of Action: WHP Team, City Council
Cooperator(s): MNDNR, MDH
Time Frame: As situations arise
Estimated Cost: Staff time

Objective B: Education and Outreach - Inform the public about groundwater issues

WHP Measure B1: Communicate to Public Water Supplier residents about wellhead protection efforts and implementation activities when disseminating the Consumer Confidence Report.

Source of Action: WHP Team
Cooperator(s): None
Time Frame: Annual
Estimated Cost: Staff time

WHP Measure B2: Educate land owners throughout the DWSMA about activities they can undertake to protect the City's water supply and also their own groundwater. Develop and make an informational brochure about the City's Wellhead Protection efforts. Brochure shall be mailed once to residents in the DWSMA and also made available to the general public at City Hall.

Source of Action: WHP Managers and Public Works Director
Cooperator(s): MDH Planner, Minnesota Rural Water Association
Time Frame: Continuous throughout plan
Estimated Cost: Staff time

WHP Measure B3: Provide the City Council information on wellhead protection activities.

Source of Action: WHP Team
Cooperator(s): None
Time Frame: As needed
Estimated Cost: Staff time

WHP Measure B4: Communicate with other local officials and local government staff to discuss WHP protection implementation activities.

Source of Action: WHP Team
Cooperator(s): None
Time Frame: Once at the start of the plan, then as changes arise
Estimated Cost: Staff/Consultant time

Objective C: Potential Contaminate Source Management – Manage potential contaminate sources within the DWSMA

WHP Measure C1: Monitor setbacks for all new potential sources of contamination located within the City well IWMZs.

Source of Action: WHP Team
Cooperator(s): None
Time Frame: As situations arise
Estimated Cost: Staff/Consultant time

WHP Measure C2: Request an updated copy of the Railroad's emergency spill response plan. Review the plan and provide comments to the railroad as appropriate.

Source of Action: WHP Team
Cooperator(s): Railroad
Time Frame: 2014 then every 2 years
Estimated Cost: Staff/Consultant time

WHP Measure C3: Request that Townships/ Counties notify the City regarding changes in land use zoning and also of condition use permit applications within the DWSMA.

Source of Action: WHP Team
Cooperator(s): Winona County, Olmsted County, Townships
Time Frame: As situations arise
Estimated Cost: Staff/Consultant time

WHP Measure C4: Review new development plans to promote use of storm water BMPs for proper treatment and utilize alternative storm water practices when applicable.

Source of Action: WHP Team
Cooperator(s): None
Time Frame: As situations arise
Estimated Cost: Staff/Consultant time

WHP Measure C5: Implement measures highlighted in IWMZ-PCSI reports.

Source of Action: WHP Team
Cooperator(s): MDH
Time Frame: Post signs within 6 months, other measures continuous throughout plan
Estimated Cost: \$300 for signs, Staff time

WHP Measure C6: Update the IWMZ-PCSI Inventory

Source of Action: WHP Team
Cooperator(s): None
Time Frame: Every three years
Estimated Cost: Staff/Consultant time

Objective D: Monitoring and Data Collection – Collect and share data relating to local groundwater issues

WHP Measure D1: Maintain up to date information about wells and water chemistry within the DWSMA.

Source of Action: WHP Team
Cooperator(s): None
Time Frame: Continuous throughout plan
Estimated Cost: Staff/Consultant time

WHP Measure D2: Maintain water quality sampling requirements mandated by MDH and analyze trends in water chemistry, looking for possible degradation of quality.

Source of Action: WHP Team
Cooperator(s): None
Time Frame: Continuous throughout plan
Estimated Cost: Staff/Consultant time

WHP Measure D3: Conduct aquifer pump test(s) when the well pumps are removed for maintenance for wells 4 and 5. The City will contact the MDH and let them know of the opportunity for testing.

Source of Action: WHP Team
Cooperator(s): MDH
Time Frame: Single test when the opportunity arises
Estimated Cost: Staff/Consultant time

WHP Measure D4: Periodically update the alternate water supply contingency strategy

Source of Action: WHP Team
Cooperator(s): None
Time Frame: Every three years
Estimated Cost: Staff/Consultant time

Chapter 6 – Evaluation Program

This section describes the WHPP evaluation program in accordance with MN Rule 4720.5270.

Required Program

A wellhead protection plan must identify a strategy for evaluating the progress of the plan of action described and listed in Chapter 5, and the impact of a contaminant release on the aquifer supplying the public water supply wells. The strategy consists of the following steps:

1. Track the implementation of the objectives identified in Chapter 5 of this Plan;
2. Determine the effectiveness of specific management strategies regarding the protection of the public water supply;
3. Identify possible changes to these strategies which may improve their effectiveness, and
4. Determine the adequacy of financial resources and staff availability to carry out the management strategies planned for the coming year.

Activities

The following activities will be implemented in order to meet the strategy listed above:

1. The City will continue to cooperate with the MDH in the annual monitoring of the water supply to determine whether the management strategies are having a positive effect and to identify water quality problems that may arise and that must be addressed.
2. Members of the wellhead protection team, the City Council, and the WHPP manager will drive through the drinking water supply management area on a regular basis to identify any changes in land use or potential contaminant source management practices which may adversely impact the public water supply.
3. The wellhead protection team will meet on an as-needed basis, with a minimum of one annual meeting, to review the results of each strategy implemented during the previous plan year and identify and discuss whether modifications are needed for those strategies, and determine if additional strategies are needed for the coming plan year.
4. The wellhead protection plan manager will submit a bi-annual written report to the City Council regarding progress in implementing the wellhead protection management objectives of this plan. The bi-annual report will be compiled and used to review the overall progress in implementing source management strategies when the City's wellhead protection plan is updated in 10 years. A copy of the report will be sent to the Minnesota Department of Health Source Water Protection Unit and another copy will be placed in the City's Wellhead Protection file.

Chapter 7 – Alternative Water Supply; Contingency Strategy

This section describes the City’s alternative water supply and contingency strategy in accordance with MN Rule 4720.5280.

The purpose of an alternative water supply contingency plan is to establish, provide, and keep updated, certain emergency response procedures and information for the PWS, which may become vital in the event of a partial or total loss of public water supply services as a result of natural disaster, chemical contamination, civil disorder, or human-caused disruptions.

The City of Saint Charles is a member of MNWARN Mutual Aid Agreement, which is an agreement between local communities to coordinate and respond to emergencies that impact water and wastewater systems. A copy of the agreement can be found in the Appendix E. In the event of an emergency the City will contact MNWARN as part of its alternative supply contingency strategy.

Public Water Supply Characteristics

Individual Wells, Storage, & Distribution

Table 7-1: Supply Well Summary

	Well # 3 (219162) Primary	Well #4 (161426) Primary	Well # 5 (161430) Primary
Supply Source	Jordan-St. Lawrence Tunnel City Group Wonewoc Sandstone	Wonewoc Sandstone	Wonewoc Sandstone
Construction	Rotary/Drilled	Rotary/Drilled	Rotary/Drilled
Year Constructed	1966	1989	1989
Well Depth (ft.)	667	736	702
Well Diameter (in.)	20	10	12
Casing Depth (ft.)	272	648	645
Well Capacity (gpm)	480	250	400

Table 7-2: Water Storage Summary

	Type	Volume (gal)
Tank 1	Elevated Tank	150,000
Tank 2	Ground Storage Tank	1,000,000

Water Treatment

Water treatment is provided at the City’s well houses. Hydrofluorosilicic acid and chlorine/sodium hypochlorite are added to the raw water for fluoridation and disinfection of the water supply in the treatment buildings. Polyphosphate is also added for softening and iron suppression purposes.

Distribution & Key Components

The distribution lines, their size, and location of valves and hydrants are shown on a map that is kept at City Hall. The City’s distribution system consists of two separate pressure zones. In general, water

from the supply wells is pumped by the well pumps to the City's ground storage tank for distribution to approximately 90% of the City. A separate booster station pumps water to the City's elevated storage tank for distribution to the Whispering-Hills area. A pressure reducing valve on a distribution line allows flow back into the lower system in the event of a fire or period of very high demand. A continuously running booster provides water to the City's new industrial/commercial park, but is currently not in operation as there is no demand in that area as of yet.

Priority Water Users During Water Supply Emergency

The following table identifies the priority that water users will receive in the event of a major system disruption.

Table 7-3: Priority Water Users

Type of Use	Priority
Residential	High
Institutional	High
Commercial	Medium
Industrial	Medium
Agricultural	Low
Recreational	Low

Alternative Water Supply

In the event of a mechanical failure or contamination affecting a single well, the City would rely on its other wells to meet demands. In the event of a disruption affecting all of the wells the City has a mutual aid agreement through MNWARN to transport potable water for distribution. Water would come from one or more surrounding communities which may include the Cities of Eyota, Dover, Altura, Rochester, and Winona.

Emergency Contact List – Key Personnel

The following table provides a list of key personnel responsible for coordinating response efforts.

Table 7-3: Key Personnel

Position	Contact	Response Assignments
Emergency Response Coordinator	Nick Koverman City Administrator 830 Whitewater Avenue Saint Charles, MN 55972 Phone: 507-932-3020	<ul style="list-style-type: none"> • Coordinate response actions • Notify key personnel • Conditional assessments • Make recommendations and provide guidance
Emergency Response Coordinator Alternate	Kyle Karger Public Work Superintendent 830 Whitewater Avenue Saint Charles, MN 55972 Phone: 507-932-3020	
Public Relations Coordinator	William Spitzer, Mayor 830 Whitewater Avenue Saint Charles, MN 55972 Phone: 507-932-3020	<ul style="list-style-type: none"> • Give public statements that have been prepared by the City regarding the water supply emergency; • Coordinate and compile information regarding water

		supply emergency;
		<ul style="list-style-type: none"> • Schedule official meetings between the City and members of the media, if needed; and • Coordinate efforts to keep the public informed about the water supply emergency.
Public Relations Coordinator Alternate	John Schaber Council Member 830 Whitewater Avenue Saint Charles, MN 55972 Phone: 507-932-3020	
Water Operator	Mike Wohlferd 830 Whitewater Avenue Saint Charles, MN 55972 Phone: 507-932-3020	<ul style="list-style-type: none"> • Coordinate efforts to define mechanical failures. • Control distribution and isolate system components • Coordinate construction and repair efforts
Water Operator Alternate	Marti Ellinghuysen 830 Whitewater Avenue Saint Charles, MN 55972 Phone: 507-932-3020	

Emergency Contact List – Personnel for Public Health

The following table provides a list of key personnel for public health responsible for coordinating response efforts.

Table 7-5: Personnel for Public Health

POSITION/AFFILIATION	CONTACT INFORMATION	PHONE NUMBERS
Mayor	William Spitzer	507-932-3020
City Council Members	Dave Braun	507-932-3020
	Wayen Getz	
	Orv Dahl	
	John Schaber	
City Hall/City Dep. Clerk	Janell Dahl	507-932-3020
Public Works Superintendent	Kyle Karger	507-932-3020 / 507-259-7449
Police Department	Ken Frank	507-932-3020
Fire Department	Lyle Peterson	507-932-4500
Winona County Emergency Management	Joyce Tlougan	507-457-9386
Winona County Sheriff's Dept.	David Brand	507-457-6368
Winona County Environmental Services	Ross Dunsmoor	507-457-6350
MN Duty Officer	N/A	1-800-422-0798
City Call Phone #	N/A	507-251-5416 / 507-251-5417

Inventory of Services, Equipment and Supplies

The following table contains a list of services, equipment and supplies that are available to the City in the event of a disruption in the water system. Included in this list are services, equipment and supplies that are not immediately available but can be obtained and the approximate time it would take to acquire.

Table 7-6: Contact Information

Description	Contact Name	Telephone	Location	Acquisition Time
Well Repair	Bergerson Caswell	763-479-3121	Maple Plain, MN	2 Hours
Pump Repair	Bergerson Caswell	763-479-3121	Maple Plain, MN	2 Hours
Electrician	Andering Electric	507-951-2129	St. Charles, MN	30 Min
Plumber	St. Charles Plumbing	507-259-0069	St. Charles, MN	30 Min
Backhoe	Red Soppa	507-251-1422	St. Charles, MN	30 Min
Chemical Feed	Hawkins	952-992-9527	Burnsville, MN	2 Hours
Meter Repair	City Staff	507-259-7449	St. Charles, MN	30 Min
Generator	United Rental	507-289-3308	Rochester, MN	1 Hour
Valves	Bergerson Caswell	763-479-3121	Maple Plain, MN	2 Hours
Pipe & Fittings	Bergerson Caswell	763-479-3121	Maple Plain, MN	2 Hours
Controls	Bauer Electrotech	507-459-1995	Winona, MN	1 Hour

Contingency Strategy Procedures

The following table describes the City's contingency response procedures.

Table 7-7: Contingency Procedures

INCIDENT/ACTIVITIES	RESPONSE PROCEDURES
Disruption (Mechanical failure or Contamination) Identification	If a citizen identifies a disruption or contamination they would contact 911, the City Office, Fire Department, and/or Winona County Sheriff's Office. These entities will inform the Emergency Response Coordinator or alternate.
Response Personnel Notification	Emergency Response Coordinator or alternate will be the incident response commander/coordinator. If the disruption requires state level assistance, the Minnesota State Duty Officer 1-800-422-0798 will be notified. If there is an immediate threat to life or property, 911 would be called first. If the functioning of the water system is impaired and mutual aid is needed, the state duty officer will request assistance from MNWARN.
Incident Direction and Control	The Emergency Response Coordinator in consultation with the Public Works Superintendant will identify equipment, services, and supplies needed to correct the water supply disruption. Emergency Management Coordinator will direct operations to implement corrective actions. Emergency Management Coordinator will instruct Water Operator and/or City Deputy Clerk to contact those services, equipment and supplies needed.

Internal Communication	Emergency Response Coordinator will communicate the status of response efforts to the Public Relations Coordinator who will inform City Staff, City Council members and other local and county emergency response personnel.
Incident Response Assessment	The Emergency Response Coordinator will assess the water supply disruption on a continual basis so that additional corrective actions can be taken and City government and the public are updated on issues and progress. The Mayor will convene a special City Council meeting if additional funds need to be allocated for the disruption or other fiscal matters need to be addressed to correct the disruption.
Public Information Needs	The Mayor will coordinate with the Emergency Response Coordinator for the information needed to be conveyed to the public and the Mayor will decide on the proper channels for disseminating information as laid out in the Public Information Plan. The Mayor contacts media with information if needed.
Contamination Disruption Assessment	Emergency Response Coordinator in consultation with Public Works Superintendant in cooperation with State agencies will attempt to define the extent and level of contamination. This coordination may continue after initial corrective actions have been implemented.
Mechanical Failure Assessment	Water Operator coordinates efforts to define the cause(s) of the mechanical failure and the equipment, data, and expertise that are needed to correct it with incident response personnel if needed. Public Works Superintendent identifies measures for reducing the likelihood that a similar mechanical failure will not occur in the future.
Alternate Water Supply Identification	Emergency Response Coordinator in conjunction with the Public Work Superintendant and the Mayor evaluates the need to obtain an alternate water supply, the time period it is needed before the water supply disruption is corrected, and the actions that are needed to obtain the water.
Imposes water use restrictions	City Council will instruct City staff to contact city residents to restrict water use to essentials to deal with any short-term water shortages.

Public Information Plan

Primary Spokesperson for the Public Water Supplier is the Public Relations Coordinator or Alternate.

Information to be conveyed to the public and media:

- Name of water system
- Nature of the water supply disruption
- Steps being taken to restore or replace the water supply
- Source of contamination or disruption

- Associated public health hazard
- Steps public can take to minimize risk from hazard
- Steps the water system is taking to minimize risk from hazard
- Other information

Media contacts and other ways of disseminating information to residents:

Table 7-8: Media Contact Information

Media	Name	Contact
Newspaper	Rochester Post Bulletin	507-285-7600
Newspaper	Saint Charles Press	507-932-3663
Television	KTTC	507-280-5125
Radio	KZSE	507-282-0910
Other	Winona County Code Red	507-932-4500

Mitigation and Conservation

The following are ways the Public Water Supply will reduce the vulnerability of the water supply system to disruption, improve response capabilities, and foster water conservation.

1. Infrastructure maintenance/upgrades/maps: Part of the water system is relatively old and infrastructure upgrades are done as necessary. The system is flushed once per quarter or more often, if needed. A map of the water distribution system is available at City Hall.
2. Regular inspection of storage tanks, wells, and pump house: These facilities are inspected on a daily basis. The pump house and chemical rooms have keyed entries and are locked.
3. Emergency training: Staff receives training through the Minnesota Rural Water Association and the Minnesota Chapter of American Water Works Association in conjunction with MDH.
4. System valving to isolate problems: The water system is adequately valved to isolate problems.
5. Sanitation procedures for construction/repairs: All disinfection procedures are performed per AWWA & MDH specifications.
6. Public education regarding conservation: The City will incorporate water conservation into the public education wellhead protection management measures.
7. Rate structure: A conservation rate structure could be set up in a protracted situation of insufficient water supply.
8. Emergency Response: In the event of a water supply shortage the City will impose the water use restrictions to reduce demand. No lawn watering will be allowed or non-essential municipal uses.

Chapter 8 – Wellhead Plan Responsibilities & Amendments

Amendments Required

MN Rule 4720.5570 requires public water suppliers to amend their wellhead protection plan when:

1. A new well is added to the system
2. If the WHPA being delineated overlaps the boundaries of another public water supplier's department approved WHPA
3. If it has been 10 years since the last approval of a WHP

Amendment Procedure

Amendments to a WHP must be produced in the same manner as the initial WHP, according to the MN Rules 4720.5300 through 4720.5360.

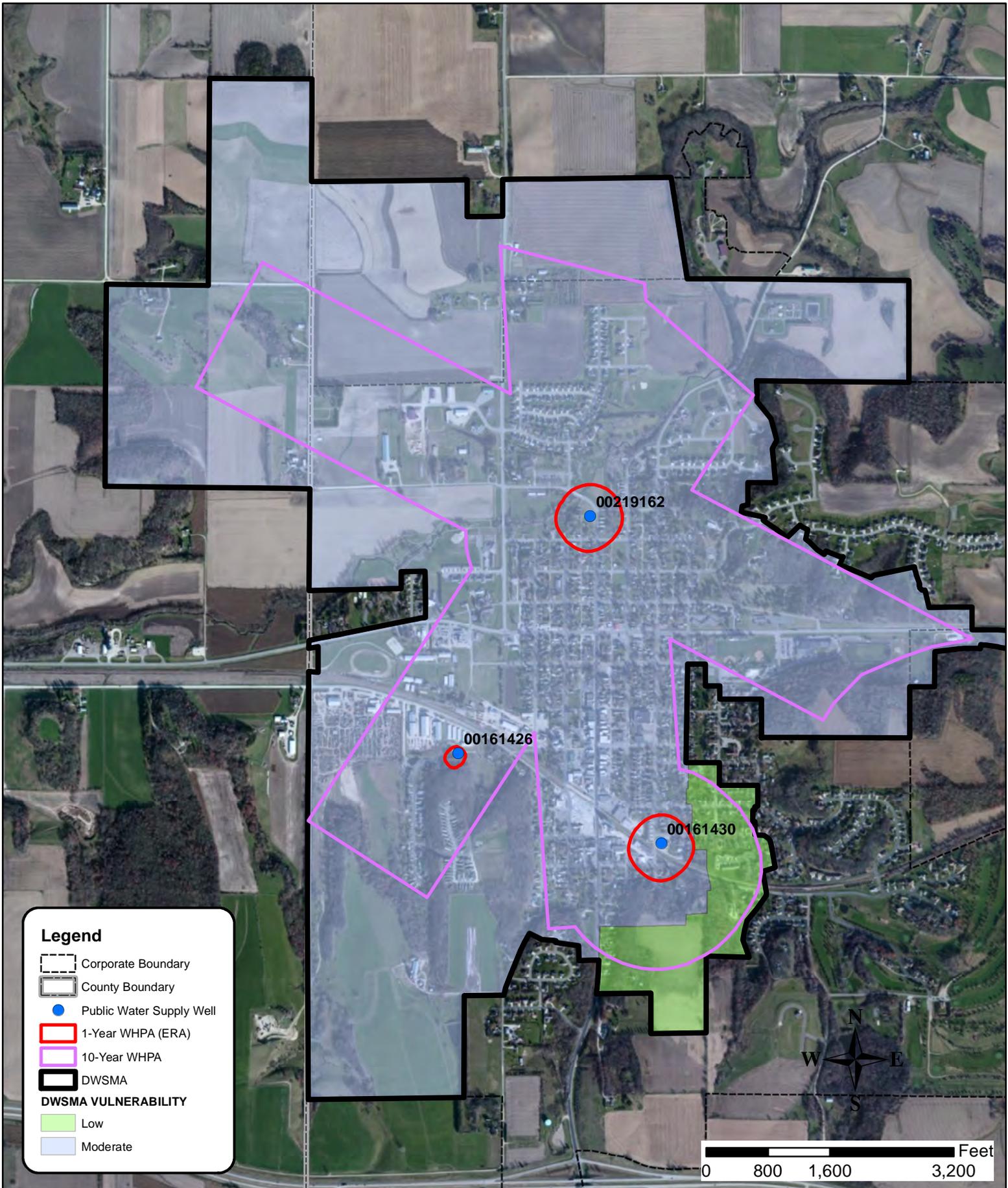
Amendment Timing

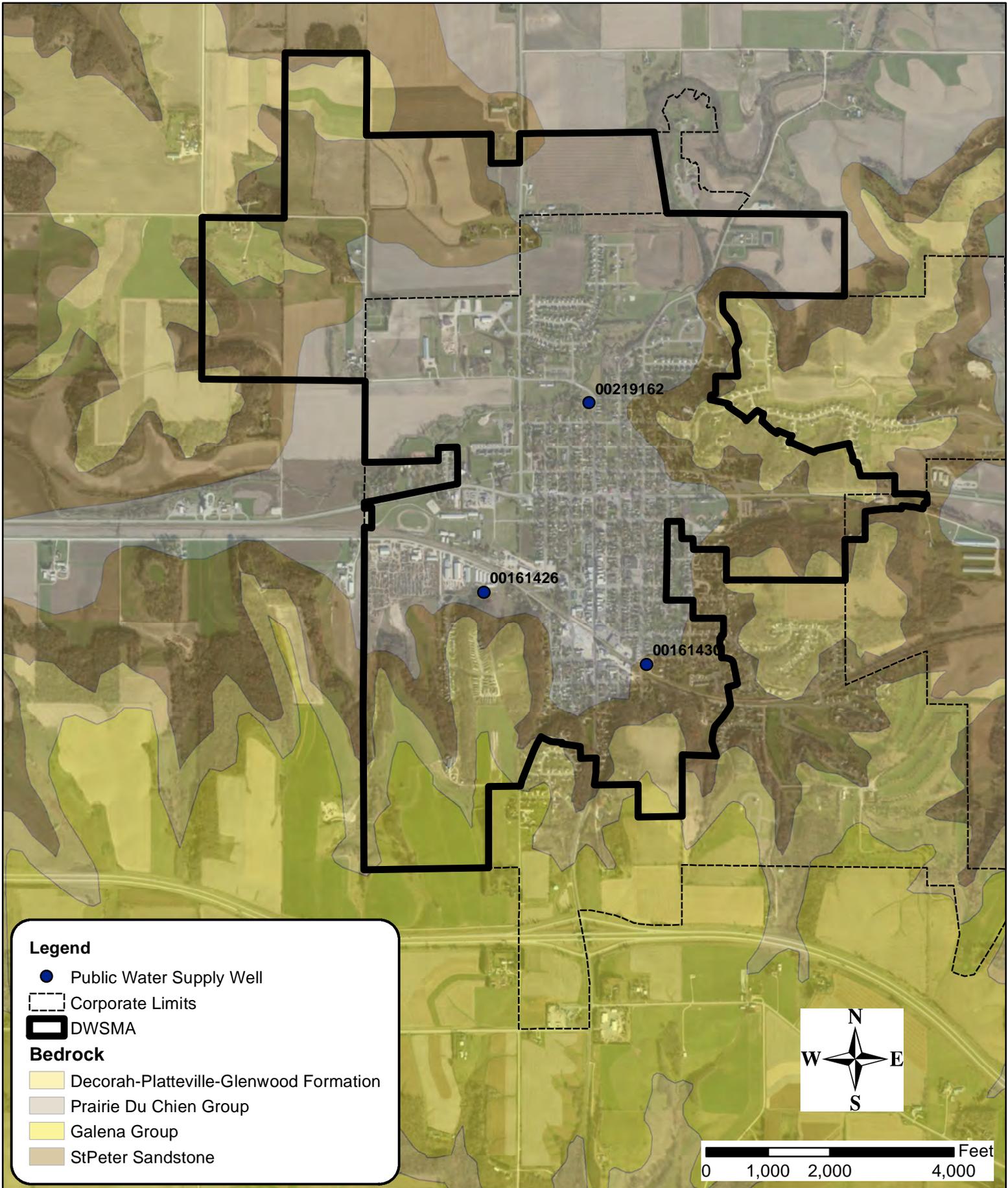
If a WHP is being amended due to the 10-year anniversary of the last approval, the WHP amendment process must be initiated 8 years after the date of the last approval.

Amendment Criteria

Amendments must comply with MN Rules 4720.52 to 4720.5290 and 4720.5500 to 4720.5540.

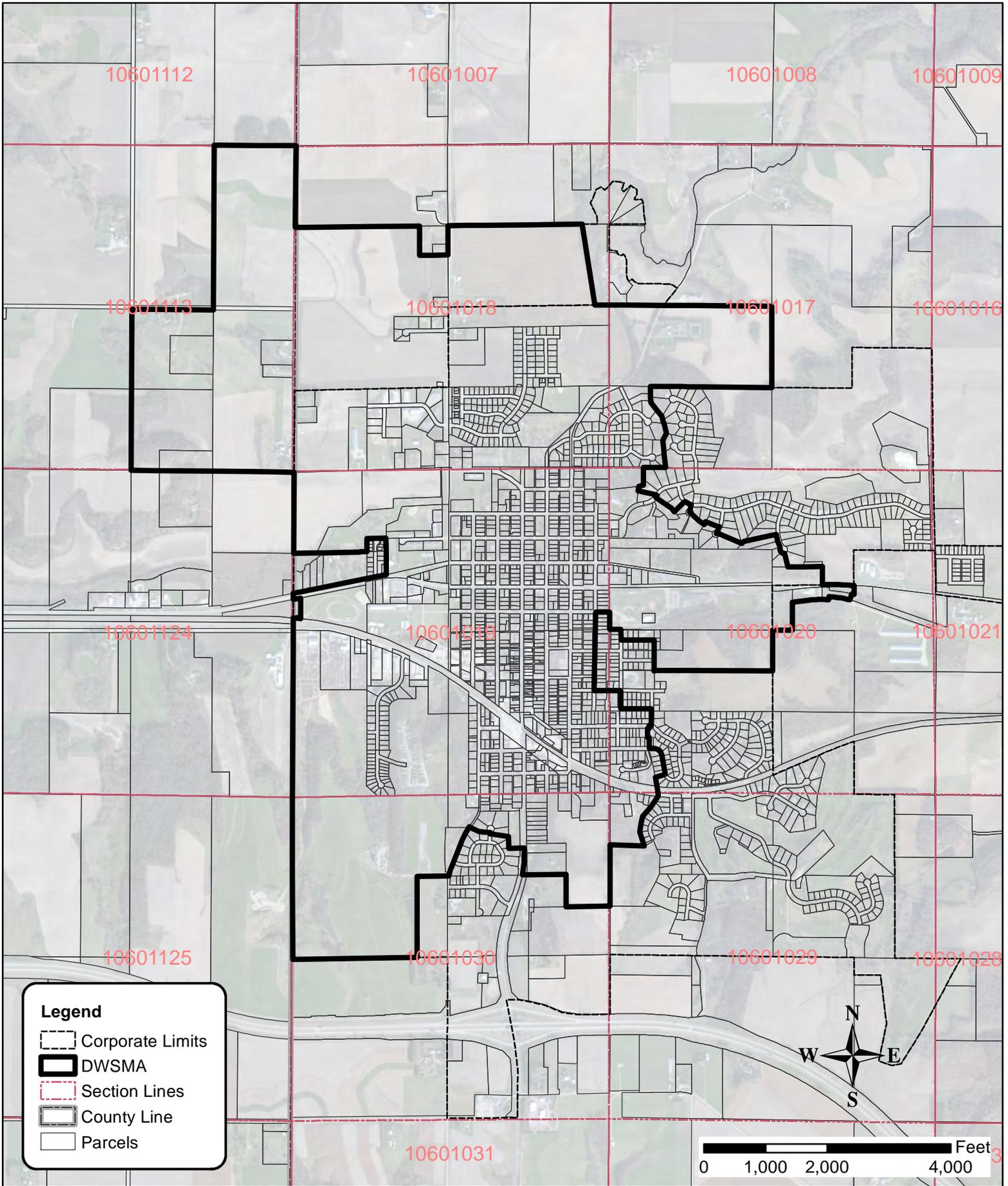
Figures





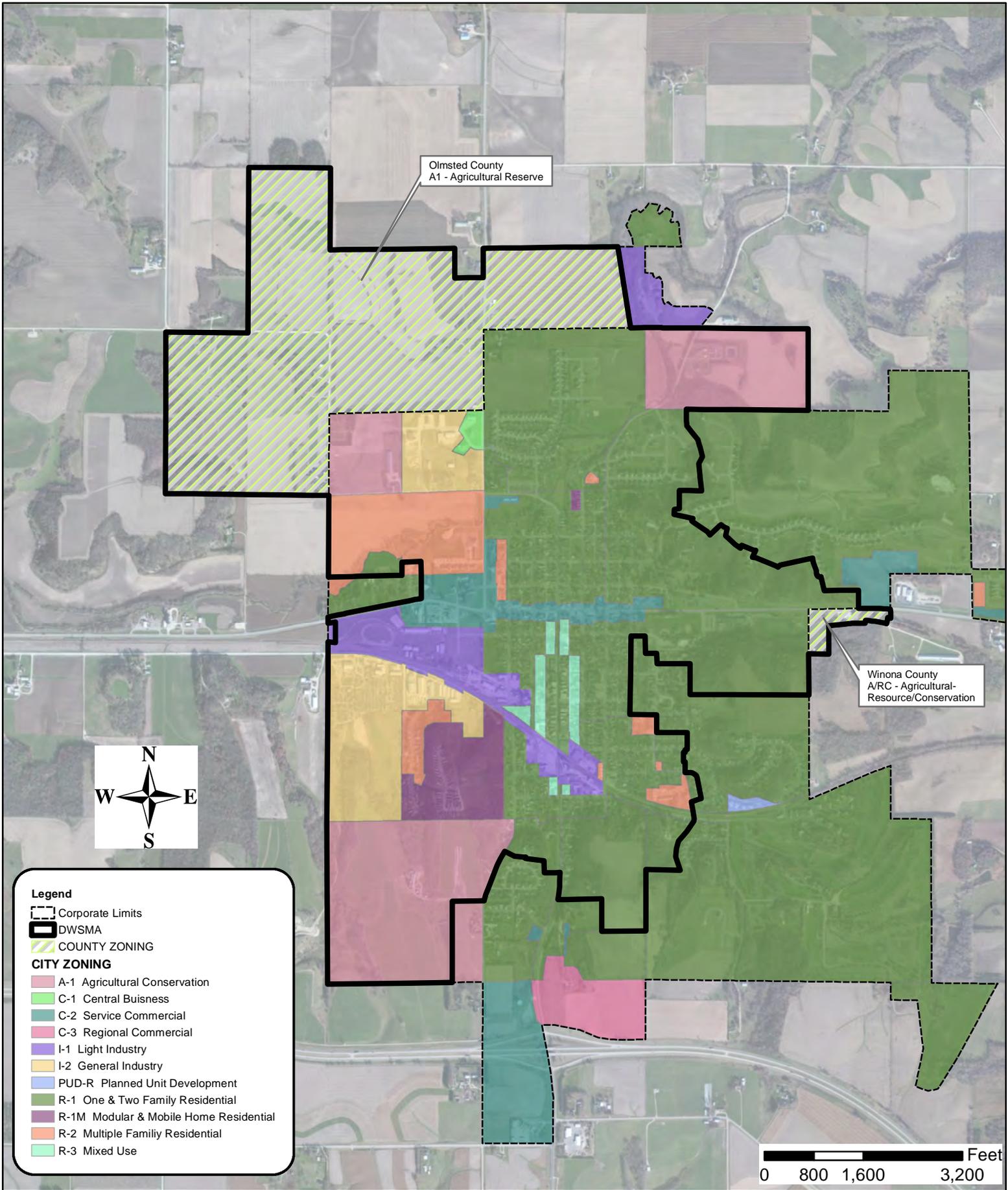
**FIGURE 2
BEDROCK MAP**

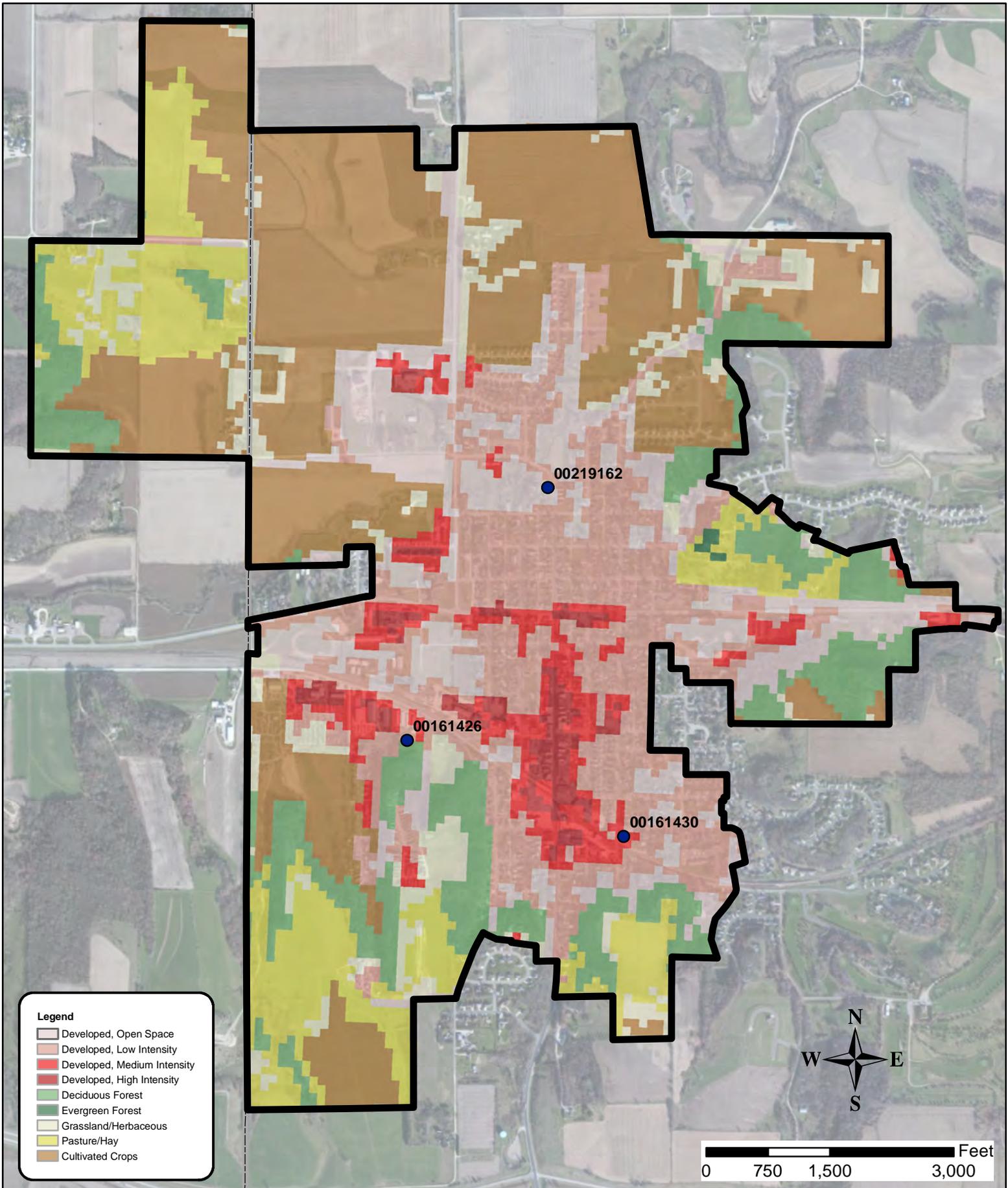


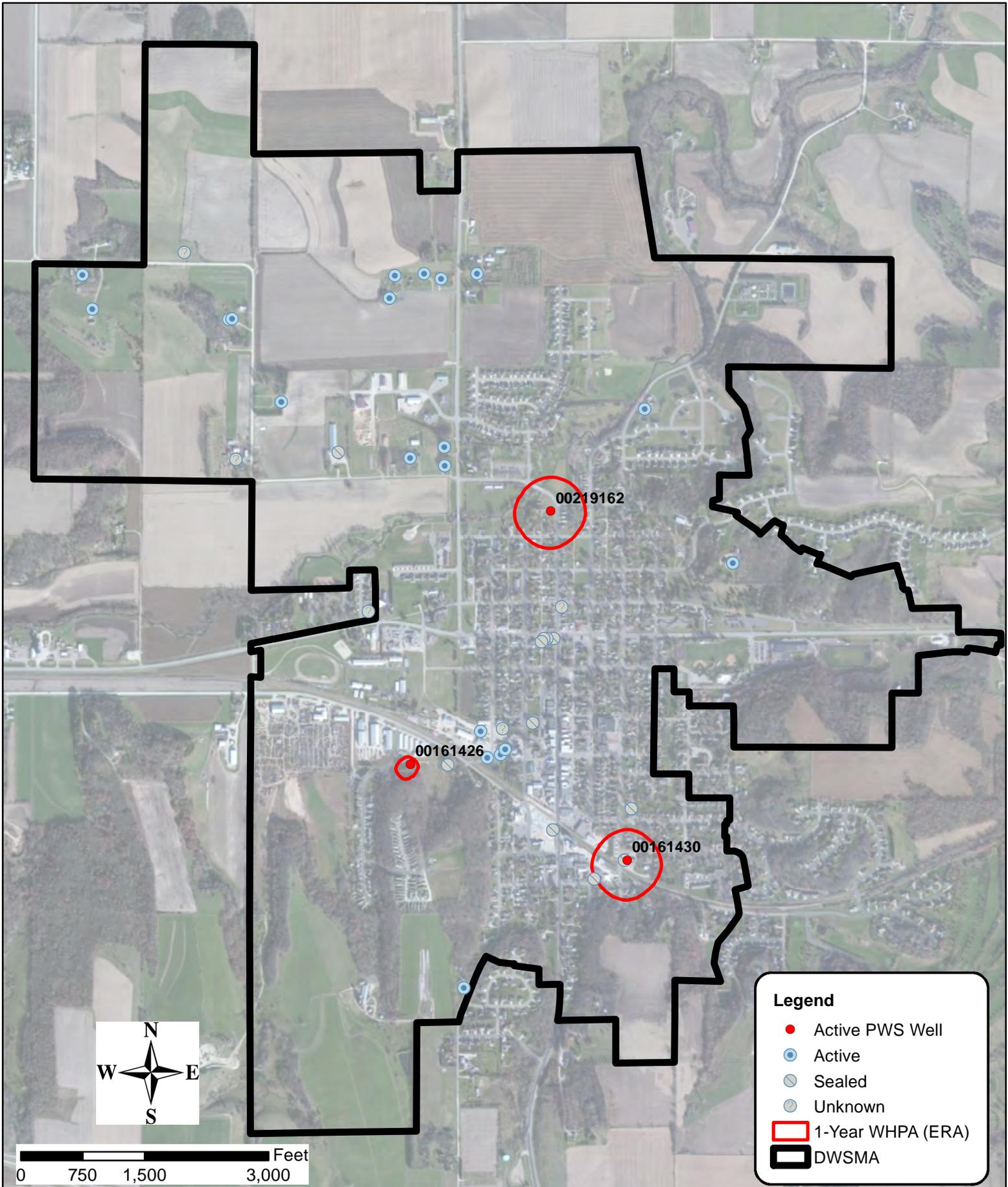


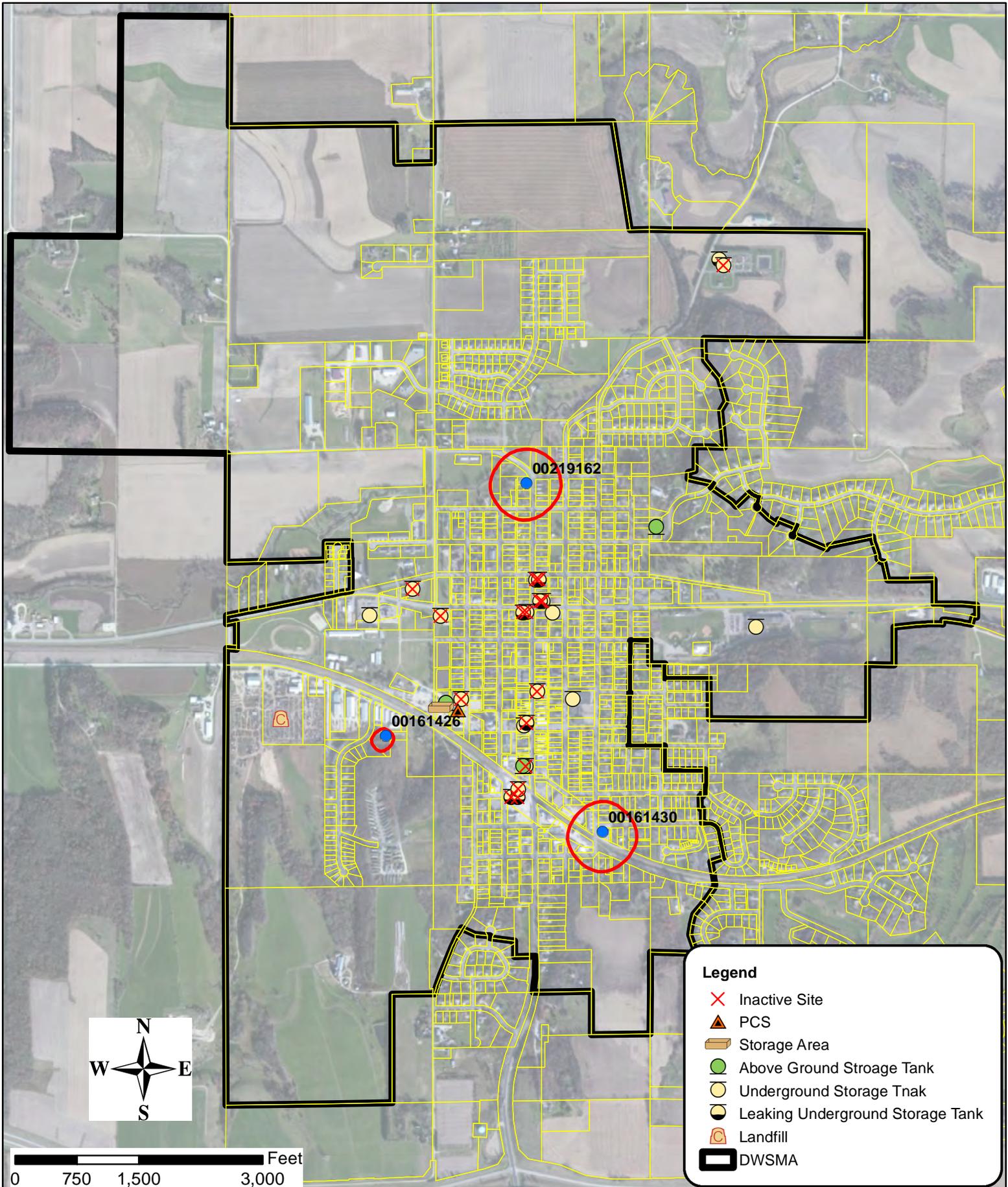
**FIGURE 3
 PARCEL & BOUNDARY MAP**







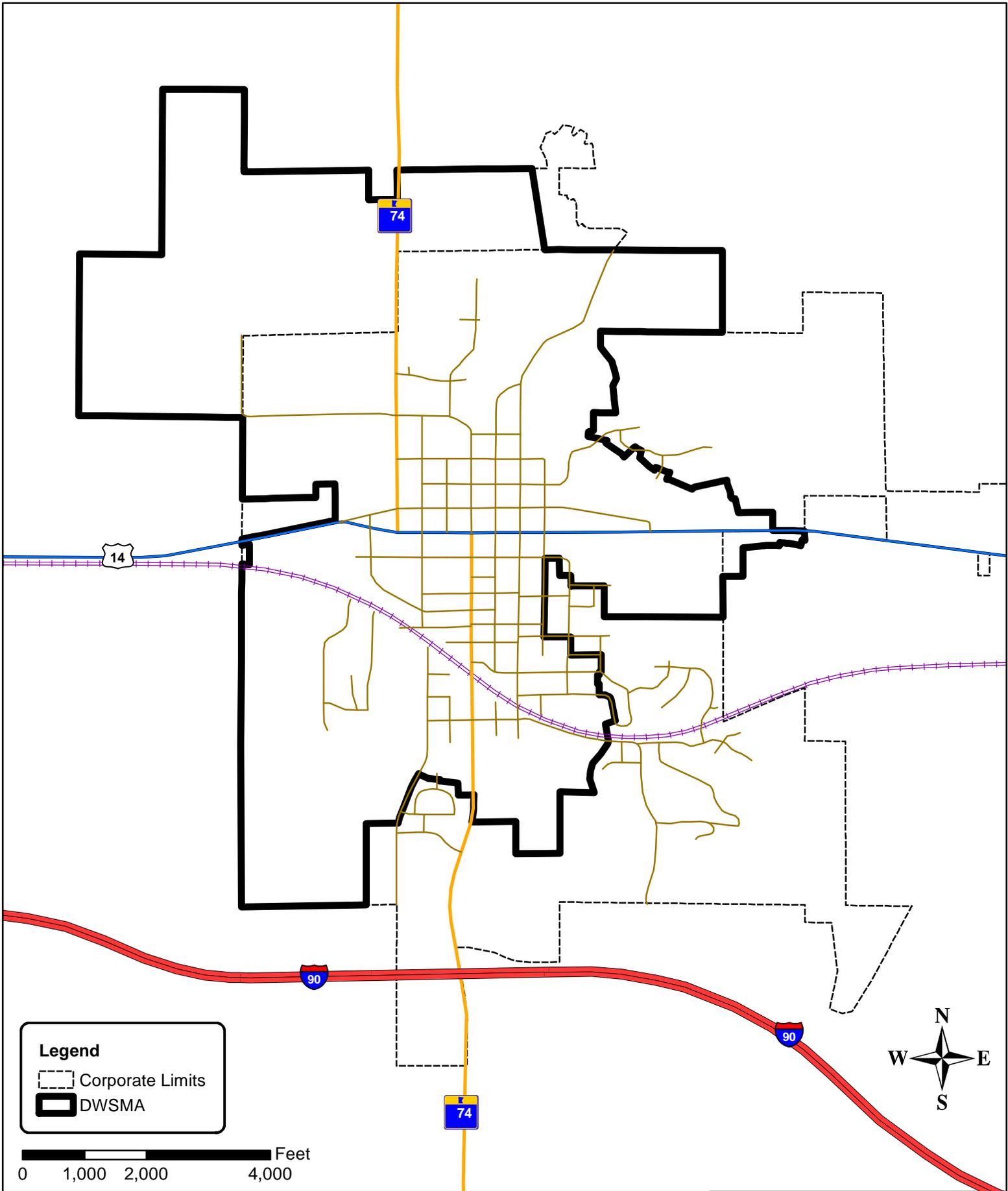




Legend

- X Inactive Site
- ▲ PCS
- Storage Area
- Above Ground Storage Tank
- Underground Storage Tank
- Leaking Underground Storage Tank
- Landfill
- DWWSMA

**FIGURE 7
 PCSI MAP**



Legend

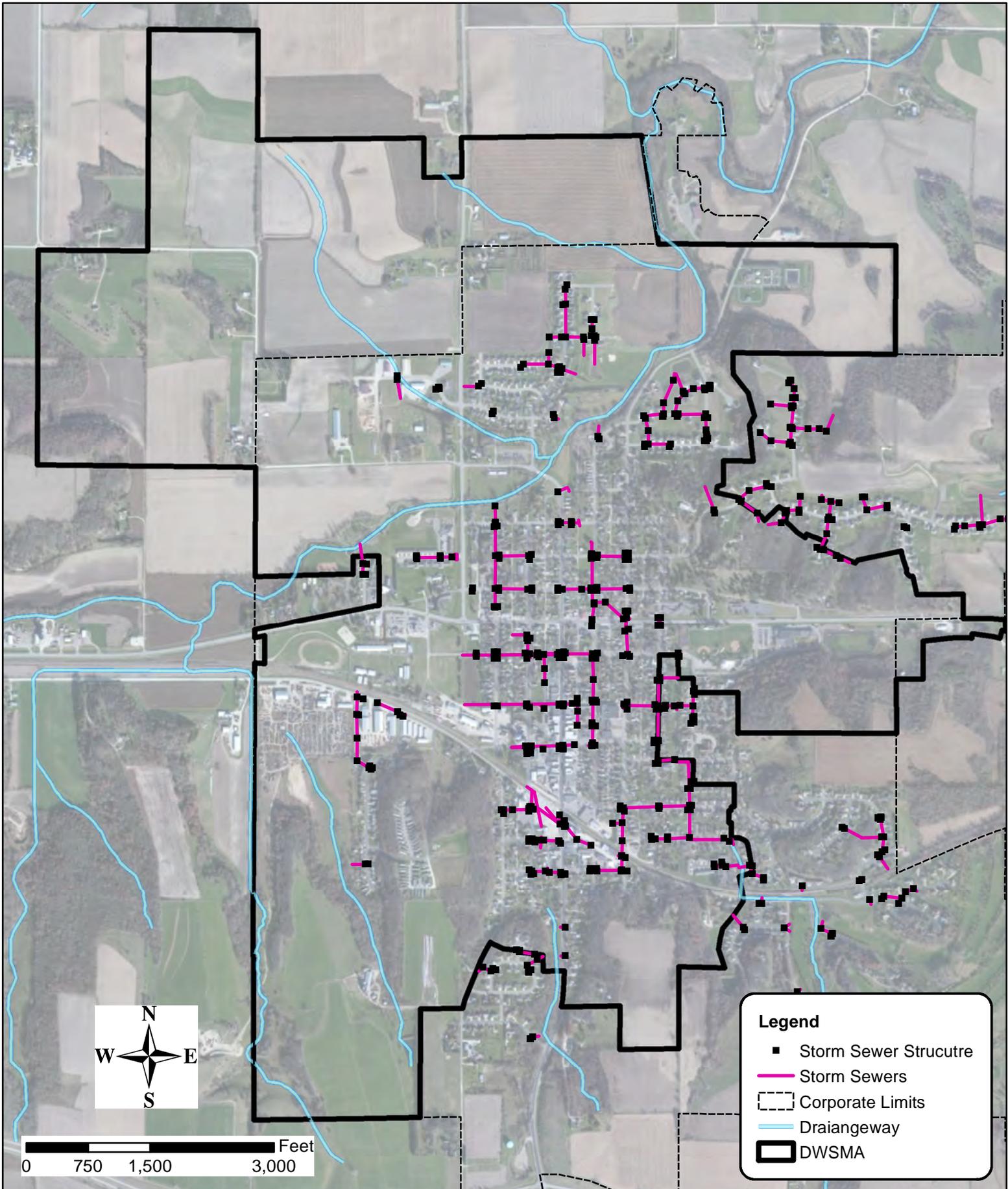
- Corporate Limits
- DWSMA

0 1,000 2,000 4,000 Feet



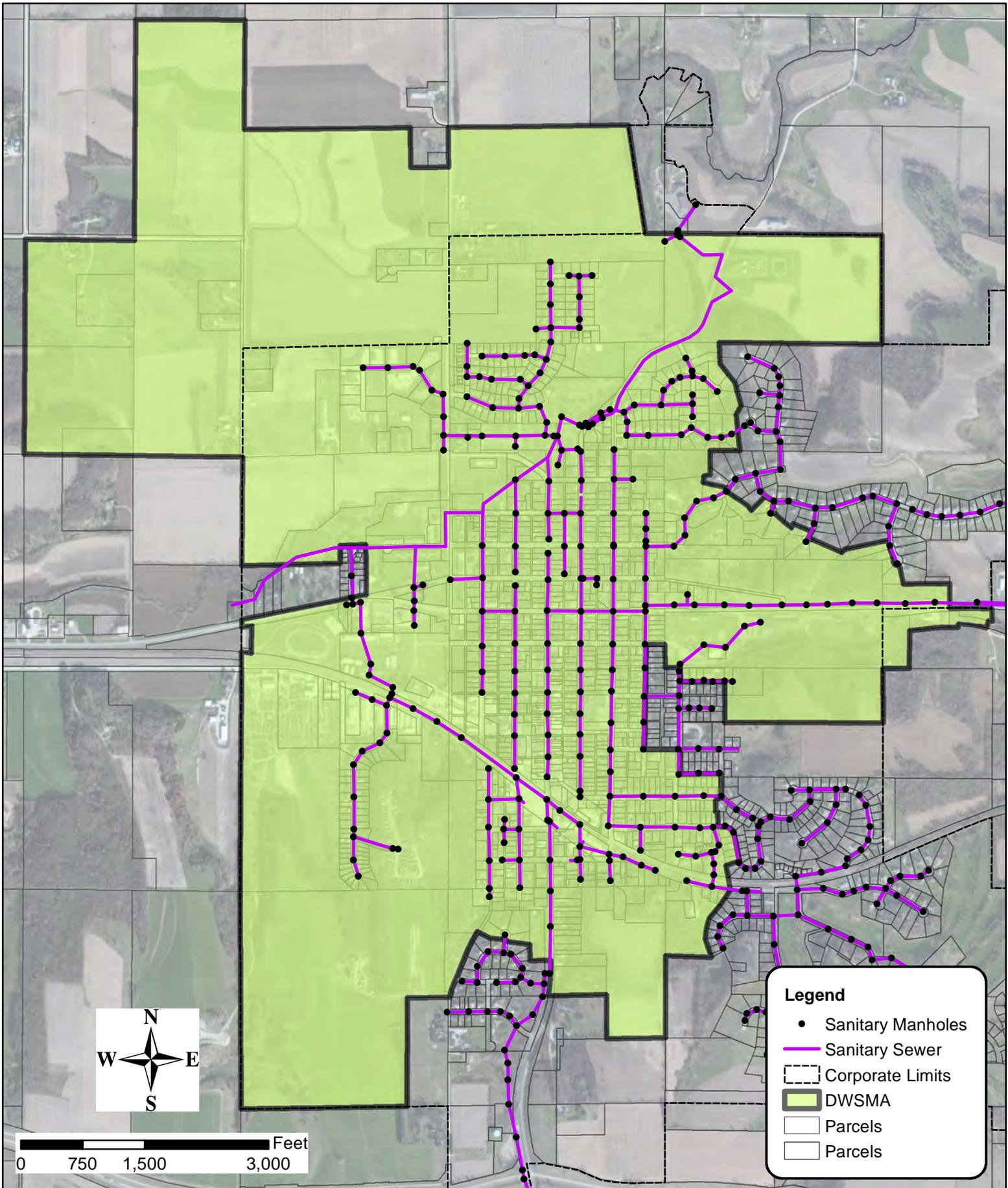
**FIGURE 8
 TRANSPORTATION MAP**





**FIGURE 9
 STORM SEWER MAP**





Legend

- Sanitary Manholes
- Sanitary Sewer
- - - Corporate Limits
- DWSSMA
- Parcels
- Parcels

0 750 1,500 3,000 Feet



**FIGURE 10
SANITARY SEWER MAP**

WELCOME TO
ST. CHARLES
GATEWAY TO WHITEWATER



Appendix A: PCSI - Wells

STATE ID	OWNER NAME	STATUS	PIN	County
W0001497	Dawn Pilcher	Active	58944	Olmsted
618284	Nicholas & Bonnie Prudoehl	Active	58945	Olmsted
W0000062	David Putzier	Active	32052	Olmsted
220603	David Putzier	Active	32052	Olmsted
475880	Cemetery	Active	290000140	Winona
475879	David & Patricia Bauer	Active	130250040	Winona
644329	Denise Boyum	Active	130250020	Winona
571149	Gary & Mary Barvels	Active	130250010	Winona
W0000127	Carol Mueske	Active	290000110	Winona
546908	Dean Bockenbauer	Active	290000293	Winona
226541	Marlin Geisler	Active	290001780	Winona
795090	Progressive Ag MW-2	Active	290450350	Winona
795092	Progressive Ag MW-4	Active	290450300	Winona
795089	Progressive Ag MW-1	Active	290450350	Winona
795091	Progressive Ag MW-3	Active	290450300	Winona
DC261042	Michael Richter	Active	290000161	Winona
DC413777	Bradley Murphy	Active	290000170	Winona
DC284430	Kyle Fuller	Active	290000180	Winona
UNKNOWN	Glenn Spitzer	Active	130250050	Winona
DC429280	Patrick Heim	Active	290000031	Winona
598370	Chattanooga Land LLC MW-4	Sealed	290602080	Winona
588384	Chattanooga Land LLC MW-1	Sealed	290602080	Winona
588385	Chattanooga Land LLC MW-2	Sealed	290602080	Winona
588386	Chattanooga Land LLC MW-3	Sealed	290602080	Winona
219163	North Start Foods	Sealed	290101180	Winona
219164	Saint Charles 2	Sealed	290100580	Winona
219166	Saint Charles 1	Sealed	290100570	Winona
DC203821	Jerome Foods	Sealed	290000150	Winona
DC445516	John Meimer	Sealed	290000150	Winona
DC484290	St Charles Plumbing & Heating	Sealed	290001050	Winona
H0291563	Rosalie Knauf	Sealed	290450040	Winona
UNKNOWN	Frank Kaehler	Unknown	290000700	Winona
DC057444	Frank Kaehler	Unknown	32053	Olmsted
DC454206	Hoff Properties	Unknown	32044	Olmsted
DC040189	Jeffrey Hardtke	Unknown	290650060	Winona
DC478890	St Charles COOP	Unknown	290601550	Winona

Appendix B: PCSI

MPCA ID	NAME	COUNT Y	ACTIVITY	STATUS	PIN	PCS CODE
18743	St. Charles Wastewater Treatment Facility	Winona	Leak Site	Active	290000010	LUST
956	Amoco SS #6187	Winona	Leak Site	Inactive	290601580	LUST
11737	Greenway of St Charles	Winona	Leak Site	Inactive	290150420	LUST
17704	Jeff Hardtke Property	Winona	Leak Site	Inactive	290601550	LUST
9614	Holiday Station Stores	Winona	Leak Site	Inactive	290600280	LUST
17663	North Star Foods Inc	Winona	Leak Site	Inactive	290101180	LUST
14515	North Star Foods Inc	Winona	Leak Site	Inactive	290101180	LUST
PBR000562	Timm's Auto Inc	Winona	Solid Waste	Active	290000640	SWMS
10028	Amoco Ss #6187	Winona	Tank Site	Inactive	290601580	UST
10958	Kwik Trip 754	Winona	Tank Site	Active	290602180	UST
124340	Tom Conway Store	Winona	Tank Site	Inactive	290150050	UST
10037	Nw Bell Telephone Co - No 15618	Winona	Tank Site	Inactive	290150320	UST
122741	White Valley Motel	Winona	Tank Site	Inactive	290400050	UST
21085	Jeff Hardtke Property	Winona	Tank Site	Inactive	290601550	UST
9895	Holiday Station Stores	Winona	Tank Site	Inactive	290602080	UST
17220	Edgars Restaurant & Lounge	Winona	Tank Site	Inactive	290601961	UST
21176	The Pump House	Winona	Tank Site	Active	290000470	UST
55083	Aa Fertilizer Co	Winona	Tank Site	Active	290450350	AST
123945	St. Charles Generator Plant	Winona	Tank Site	Active	290000300	AST
10054	ISD 858 - St Charles School District	Winona	Tank Site	Active	290000790	UST
9859	Greenway of St Charles	Winona	Tank Site	Active	290150420	UST
54314	Nw Bell Telephone Co - No 15618	Winona	Tank Site	Active	290150320	AST
125544	Twin Valley AG	Winona	Tank Site	Inactive	290450350	UST
10053	ISD 858 St Charles High School	Winona	Tank Site	Active	290000370	UST
9833	Whitewater River Regional WWTP	Winona	Tank Site	Inactive	290000010	UST
122312	North Star Foods Inc	Winona	Tank Site	Inactive	290101180	UST
20058492	Progressive Ag	Winona	Storage	Active	290450420	STOR
GCH101048355	Twin Valley Ag	Winona	Cleanup	Active	290450350	PCS

INNER WELLHEAD MANAGEMENT ZONE (IWMZ) -
 POTENTIAL CONTAMINANT SOURCE INVENTORY (PCSI) REPORT

PUBLIC WATER SYSTEM INFORMATION

PWS ID	1850009	COMMUNITY
NAME	Saint Charles	
ADDRESS	St. Charles Water Superintendent, c/o Mr. Kyle A. Karger, 830 Whitewater Avenue, St. Charles, MN 55972	

FACILITY (WELL) INFORMATION

NAME	Well #3	IS THERE A WELL LOG OR ADDITIONAL CONSTRUCTION INFORMATION AVAILABLE? <input type="checkbox"/> YES (Please attach a copy) <input type="checkbox"/> NO <input type="checkbox"/> UNDETERMINED
FACILITY ID	S01	
UNIQUE WELL NO.	219162	
COUNTY	Winona	

PWS ID / FACILITY ID	1850009 S01	UNIQUE WELL NO.	219162
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PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)				LOCATION	
		Minimum Distances		Sensitive Well'	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)
		Community	Non-community				

Agricultural Related

*AC1	Agricultural chemical buried piping	50	50		N		
*AC2	Agricultural chemical multiple tanks or containers for residential retail sale or use, no single tank or container exceeding, but aggregate volume exceeding 56 gal. or 100 lbs. dry weight	50	50		N		
ACP	Agricultural chemical tank or container with 25 gal. or more or 100 lbs. or more dry weight, or equipment filling or cleaning area without safeguards	150	150		N		
ACS	Agricultural chemical storage or equipment filling or cleaning area with safeguards	100	100		N		
ACR	Agricultural chemical storage or equipment filling or cleaning area with safeguards and roofed	50	50		N		
ADW	Agricultural drainage well ² (Class V well - illegal ³)	50	50		N		
AAT	Anhydrous ammonia tank (stationary tank)	50	50		N		
AB1	Animal building, feedlot, confinement area, or kennel, 0.1 to 1.0 animal unit (stockyard)	50	20	100/40	N		
AB2	Animal building or poultry building, including a horse riding area, more than 1.0 animal unit	50	50	100	N		
ABS	Animal burial area, more than 1.0 animal unit	50	50		N		
FWP	Animal feeding or watering area within a pasture, more than 1.0 animal unit	50	50	100	N		
AF1	Animal feedlot, unroofed, 300 or more animal units (stockyard)	100	100	200	N		
AF2	Animal feedlot, more than 1.0, but less than 300 animal units (stockyard)	50	50	100	N		
AMA	Animal manure application	use discretion	use discretion		N		
REN	Animal rendering plant	50	50		N		
MS1	Manure (liquid) storage basin or lagoon, unpermitted or noncertified	300	300	600	N		
MS2	Manure (liquid) storage basin or lagoon, approved earthen liner	150	150	300	N		
MS3	Manure (liquid) storage basin or lagoon, approved concrete or composite liner	100	100	200	N		
MS4	Manure (solid) storage area, not covered with a roof	100	100	200	N		
OSC	Open storage for crops	use discretion	use discretion		N		

SSTS Related

AA1	Absorption area of a soil dispersal system, average flow greater than 10,000 gal./day	300	300	600	N		
AA2	Absorption area of a soil dispersal system serving a facility handling infectious or pathological wastes, average flow 10,000 gal./day or less	150	150	300	N		
AA3	Absorption area of a soil dispersal system, average flow 10,000 gal./day or less	50	50	100	N		
AA4	Absorption area of a soil dispersal system serving multiple family residences or a non-residential facility and has the capacity to serve 20 or more persons per day (Class V well) ²	50/300/150 ⁴	50/300/150 ⁴	100/600/300 ⁴	N		
CSP	Cesspool	75	75	150	N		
AGG	Dry well, leaching pit, seepage pit	75	75	150	N		
*FD1	Floor drain, grate, or trough connected to a buried sewer	50	50		N		
*FD2	Floor drain, grate, or trough if buried sewer is air-tested, approved materials, serving one building, or two or less single-family residences	50	20		N		
*GW1	Gray-water dispersal area	50	50	100	N		
LC1	Large capacity cesspools (Class V well - illegal) ²	75	75	150	N		

PWS ID / FACILITY ID	1850009 S01	UNIQUE WELL NO.	219162
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PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)				LOCATION	
		Minimum Distances		Sensitive Well'	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)
		Community	Non-community				
MVW	Motor vehicle waste disposal (Class V well - illegal) ²	illegal	illegal		N		
PR1	Privy, nonportable	50	50	100	N		
PR2	Portable (privy) or toilet	50	20		N		
*SF1	Watertight sand filter; peat filter; or constructed wetland	50	50		N		
SET	Septic tank	50	50		N		
HTK	Sewage holding tank, watertight	50	50		N		
SS1	Sewage sump capacity 100 gal. or more	50	50		N		
SS2	Sewage sump capacity less than 100 gal., tested, conforming to rule	50	20		N		
*ST1	Sewage treatment device, watertight	50	50		N		
SB1	Sewer, buried, approved materials, tested, serving one building, or two or less single-family residences	50	20		Y	195	Y
SB2	Sewer, buried, collector, municipal, serving a facility handling infectious or pathological wastes, open-jointed or unapproved materials	50	50		Y	75	Y
*WB1	Water treatment backwash holding basin, reclaim basin, or surge tank with a direct sewer connection	50	50		N		
*WB2	Water treatment backwash holding basin, reclaim basin, or surge tank with a backflow protected sewer connection	20	20		N		
Land Application							
SPT	Land spreading area for sewage, septage, or sludge	50	50	100	N		
Solid Waste Related							
COS	Commercial compost site	50	50		N		
CD1	Construction or demolition debris disposal area	50	50	100	N		
*HW1	Household solid waste disposal area, single residence	50	50	100	N		
LF1	Landfill, permitted demolition debris, dump, or mixed municipal solid waste from multiple persons	300	300	600	N		
SVY	Scrap yard	50	50		N		
SWT	Solid waste transfer station	50	50		N		
Storm Water Related							
SD1	Storm water drain pipe, 8 inches or greater in diameter	50	20		Y	70	Y
SWI	Storm water drainage well ² (Class V well - illegal ³)	50	50		N		
SM1	Storm water pond greater than 5000 gal.	50	35		N		
Wells and Borings							
*EB1	Elevator boring, not conforming to rule	50	50		N		
*EB2	Elevator boring, conforming to rule	20	20		N		
MON	Monitoring well	record dist.	record dist.		N		
WEL	Operating well	record dist.	record dist.		N		
UUW	Unused, unsealed well or boring	50	50		N		
General							
*CR1	Cistern or reservoir, buried, nonpressurized water supply	20	20		N		
PLM	Contaminant plume	50	50		N		
*CW1	Cooling water pond, industrial	50	50	100	N		
DC1	Deicing chemicals, bulk road	50	50	100	N		
*ET1	Electrical transformer storage area, oil-filled	50	50		N		
GRV	Grave or mausoleum	50	50		N		
GP1	Gravel pocket or French drain for clear water drainage only	20	20		Y	30	Y
*HS1	Hazardous substance buried piping	50	50		N		
HS2	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight, without safeguards	150	150		N		
HS3	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight with safeguards	100	100		N		
HS4	Hazardous substance multiple storage tanks or containers for residential retail sale or use, no single tank or container exceeding 56 gal. or 100 lbs., but aggregate volume exceeding	50	50		N		
HWF	Highest water or flood level	50	N/A		N		
*HG1	Horizontal ground source closed loop heat exchanger buried piping	50	50		N		
*HG2	Horizontal ground source closed loop heat exchanger buried piping and horizontal piping, approved materials and heat transfer fluid	50	10		N		
IWD	Industrial waste disposal well (Class V well) ²	illegal ³	illegal ³		N		
IWS	Interceptor, including a flammable waste or sediment	50	50		N		
OH1	Ordinary high water level of a stream, river, pond, lake, reservoir, or drainage ditch (holds water six months or more)	50	35		N		

PWS ID / FACILITY ID

1850009 S01

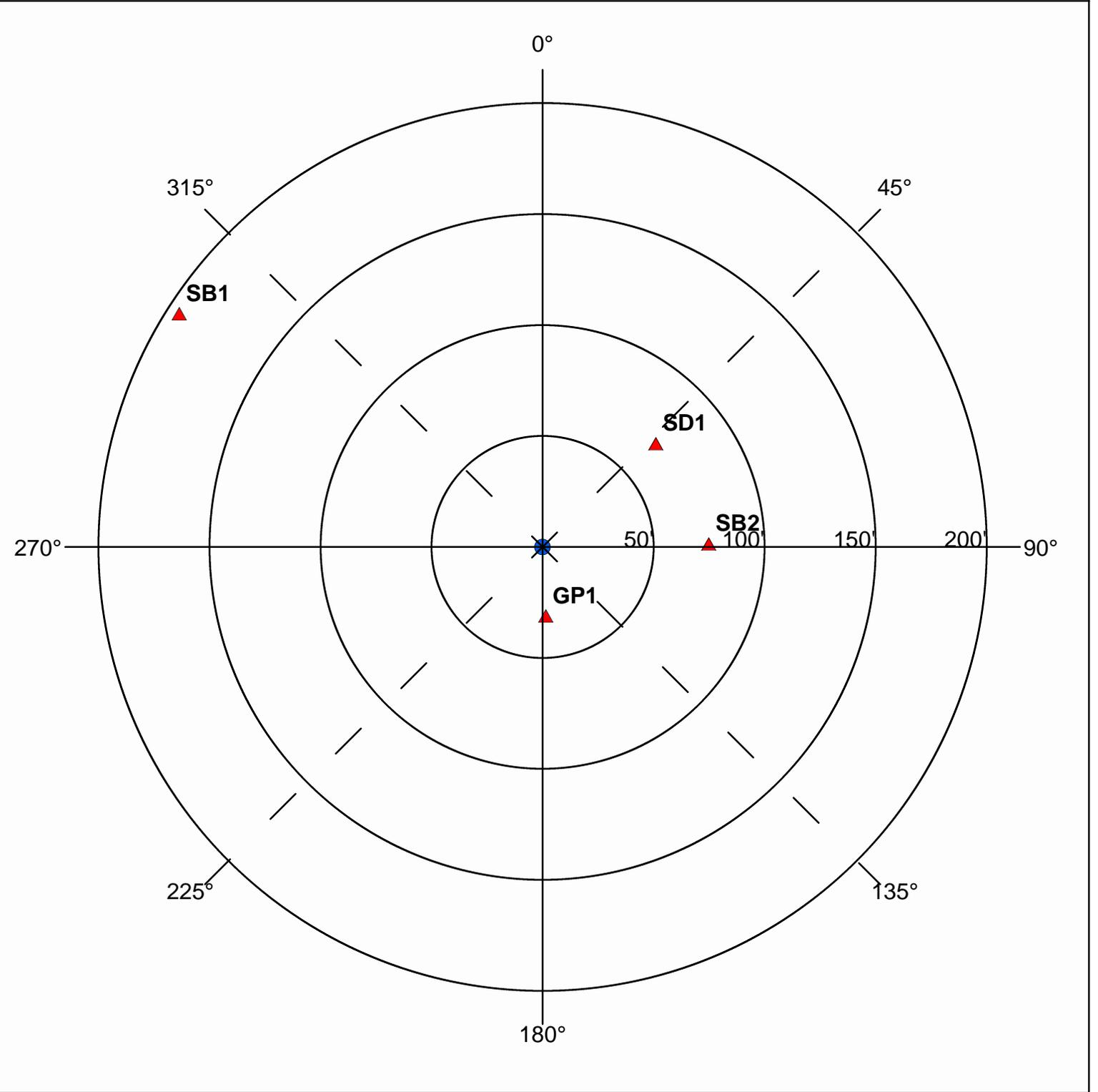
UNIQUE WELL NO.

219162

SETBACK DISTANCES

All potential contaminant sources must be noted on sketch.

Record the distance and approximate compass bearing of each potential contaminant source from the well, and identify the source using the "Source Code". Unlabeled points on the map are unsealed wells.



Were the isolation distances maintained for the new sources of contamination?

Y

N

N/A

Is the system monitoring existing nonconforming sources of contamination?

Y

N

N/A

Reminder Question: Were the wellhead protection measure(s) implemented?

INSPECTOR

Bailey, Pat (SWP)

DATE

8 - 12 - 2013

PWS ID / FACILITY ID	1850009 S01	UNIQUE WELL NO.	219162
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RECOMMENDED WELLHEAD PROTECTION (WHP) MEASURES	WHP MEASURE IMPLEMENTED? Y or N	DATE VERIFIED
Any sewer lines that are observed to be leaking, cracked, or deteriorated, should be replaced.		
Best management practices should be employed for outdoor chemical use, to prevent stormwater from moving chemical contaminants to surface waters or where wells could be impacted.		
Floor drains, such as in pumphouses, that discharge to a gravel pocket or seepage pit should have a "No Dumping" sign posted.		

COMMENTS
GP1- need to confirm location of gravel pocket.

For further information, please contact:

**Minnesota Department of Health
 Drinking Water Protection Section
 Source Water Protection Unit
 P.O. Box 64975
 St. Paul, Minnesota 55164-0975**

**Section Receptionist: 651-201-4700
 Division TDD: 651-201-5797 or MN Relay Service @ 1-800-627-3529 and ask for 651-201-5000**

INNER WELLHEAD MANAGEMENT ZONE (IWMZ) -
 POTENTIAL CONTAMINANT SOURCE INVENTORY (PCSI) REPORT

PUBLIC WATER SYSTEM INFORMATION

PWS ID	1850009	COMMUNITY
NAME	Saint Charles	
ADDRESS	St. Charles Water Superintendent, c/o Mr. Kyle A. Karger, 830 Whitewater Avenue, St. Charles, MN 55972	

FACILITY (WELL) INFORMATION

NAME	Well #4	IS THERE A WELL LOG OR ADDITIONAL CONSTRUCTION INFORMATION AVAILABLE? <input type="checkbox"/> YES (Please attach a copy) <input type="checkbox"/> NO <input type="checkbox"/> UNDETERMINED
FACILITY ID	S02	
UNIQUE WELL NO.	161426	
COUNTY	Winona	

PWS ID / FACILITY ID	1850009 S02	UNIQUE WELL NO.	161426
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PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)				LOCATION	
		Minimum Distances		Sensitive Well'	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)
		Community	Non-community				

Agricultural Related

*AC1	Agricultural chemical buried piping	50	50		N		
*AC2	Agricultural chemical multiple tanks or containers for residential retail sale or use, no single tank or container exceeding, but aggregate volume exceeding 56 gal. or 100 lbs. dry weight	50	50		N		
ACP	Agricultural chemical tank or container with 25 gal. or more or 100 lbs. or more dry weight, or equipment filling or cleaning area without safeguards	150	150		N		
ACS	Agricultural chemical storage or equipment filling or cleaning area with safeguards	100	100		N		
ACR	Agricultural chemical storage or equipment filling or cleaning area with safeguards and roofed	50	50		N		
ADW	Agricultural drainage well ² (Class V well - illegal ³)	50	50		N		
AAT	Anhydrous ammonia tank (stationary tank)	50	50		N		
AB1	Animal building, feedlot, confinement area, or kennel, 0.1 to 1.0 animal unit (stockyard)	50	20	100/40	N		
AB2	Animal building or poultry building, including a horse riding area, more than 1.0 animal unit	50	50	100	N		
ABS	Animal burial area, more than 1.0 animal unit	50	50		N		
FWP	Animal feeding or watering area within a pasture, more than 1.0 animal unit	50	50	100	N		
AF1	Animal feedlot, unroofed, 300 or more animal units (stockyard)	100	100	200	N		
AF2	Animal feedlot, more than 1.0, but less than 300 animal units (stockyard)	50	50	100	N		
AMA	Animal manure application	use discretion	use discretion		N		
REN	Animal rendering plant	50	50		N		
MS1	Manure (liquid) storage basin or lagoon, unpermitted or noncertified	300	300	600	N		
MS2	Manure (liquid) storage basin or lagoon, approved earthen liner	150	150	300	N		
MS3	Manure (liquid) storage basin or lagoon, approved concrete or composite liner	100	100	200	N		
MS4	Manure (solid) storage area, not covered with a roof	100	100	200	N		
OSC	Open storage for crops	use discretion	use discretion		N		

SSTS Related

AA1	Absorption area of a soil dispersal system, average flow greater than 10,000 gal./day	300	300	600	N		
AA2	Absorption area of a soil dispersal system serving a facility handling infectious or pathological wastes, average flow 10,000 gal./day or less	150	150	300	N		
AA3	Absorption area of a soil dispersal system, average flow 10,000 gal./day or less	50	50	100	N		
AA4	Absorption area of a soil dispersal system serving multiple family residences or a non-residential facility and has the capacity to serve 20 or more persons per day (Class V well) ²	50/300/150 ⁴	50/300/150 ⁴	100/600/300 ⁴	N		
CSP	Cesspool	75	75	150	N		
AGG	Dry well, leaching pit, seepage pit	75	75	150	N		
*FD1	Floor drain, grate, or trough connected to a buried sewer	50	50		N		
*FD2	Floor drain, grate, or trough if buried sewer is air-tested, approved materials, serving one building, or two or less single-family residences	50	20		N		
*GW1	Gray-water dispersal area	50	50	100	N		
LC1	Large capacity cesspools (Class V well - illegal) ²	75	75	150	N		

PWS ID / FACILITY ID	1850009 S02	UNIQUE WELL NO.	161426
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PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)				LOCATION	
		Minimum Distances		Sensitive Well'	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)
		Community	Non-community				
MVW	Motor vehicle waste disposal (Class V well - illegal) ²	illegal	illegal		N		
PR1	Privy, nonportable	50	50	100	N		
PR2	Portable (privy) or toilet	50	20		N		
*SF1	Watertight sand filter; peat filter; or constructed wetland	50	50		N		
SET	Septic tank	50	50		N		
HTK	Sewage holding tank, watertight	50	50		N		
SS1	Sewage sump capacity 100 gal. or more	50	50		N		
SS2	Sewage sump capacity less than 100 gal., tested, conforming to rule	50	20		N		
*ST1	Sewage treatment device, watertight	50	50		N		
SB1	Sewer, buried, approved materials, tested, serving one building, or two or less single-family residences	50	20		Y	150	Y
SB2	Sewer, buried, collector, municipal, serving a facility handling infectious or pathological wastes, open-jointed or unapproved materials	50	50		Y	200	Y
*WB1	Water treatment backwash holding basin, reclaim basin, or surge tank with a direct sewer connection	50	50		N		
*WB2	Water treatment backwash holding basin, reclaim basin, or surge tank with a backflow protected sewer connection	20	20		N		
Land Application							
SPT	Land spreading area for sewage, septage, or sludge	50	50	100	N		
Solid Waste Related							
COS	Commercial compost site	50	50		N		
CD1	Construction or demolition debris disposal area	50	50	100	N		
*HW1	Household solid waste disposal area, single residence	50	50	100	N		
LF1	Landfill, permitted demolition debris, dump, or mixed municipal solid waste from multiple persons	300	300	600	N		
SVY	Scrap yard	50	50		N		
SWT	Solid waste transfer station	50	50		N		
Storm Water Related							
SD1	Storm water drain pipe, 8 inches or greater in diameter	50	20		N		
SWI	Storm water drainage well ² (Class V well - illegal ³)	50	50		N		
SM1	Storm water pond greater than 5000 gal.	50	35		N		
Wells and Borings							
*EB1	Elevator boring, not conforming to rule	50	50		N		
*EB2	Elevator boring, conforming to rule	20	20		N		
MON	Monitoring well	record dist.	record dist.		N		
WEL	Operating well	record dist.	record dist.		Y	0	
UUW	Unused, unsealed well or boring	50	50		N		
General							
*CR1	Cistern or reservoir, buried, nonpressurized water supply	20	20		N		
PLM	Contaminant plume	50	50		N		
*CW1	Cooling water pond, industrial	50	50	100	N		
DC1	Deicing chemicals, bulk road	50	50	100	N		
*ET1	Electrical transformer storage area, oil-filled	50	50		N		
GRV	Grave or mausoleum	50	50		N		
GP1	Gravel pocket or French drain for clear water drainage only	20	20		Y	30	Y
*HS1	Hazardous substance buried piping	50	50		N		
HS2	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight, without safeguards	150	150		N		
HS3	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight with safeguards	100	100		N		
HS4	Hazardous substance multiple storage tanks or containers for residential retail sale or use, no single tank or container exceeding 56 gal. or 100 lbs., but aggregate volume exceeding	50	50		N		
HWF	Highest water or flood level	50	N/A		N		
*HG1	Horizontal ground source closed loop heat exchanger buried piping	50	50		N		
*HG2	Horizontal ground source closed loop heat exchanger buried piping and horizontal piping, approved materials and heat transfer fluid	50	10		N		
IWD	Industrial waste disposal well (Class V well) ²	illegal ³	illegal ³		N		
IWS	Interceptor, including a flammable waste or sediment	50	50		N		
OH1	Ordinary high water level of a stream, river, pond, lake, reservoir, or drainage ditch (holds water six months or more)	50	35		N		

PWS ID / FACILITY ID

1850009 S02

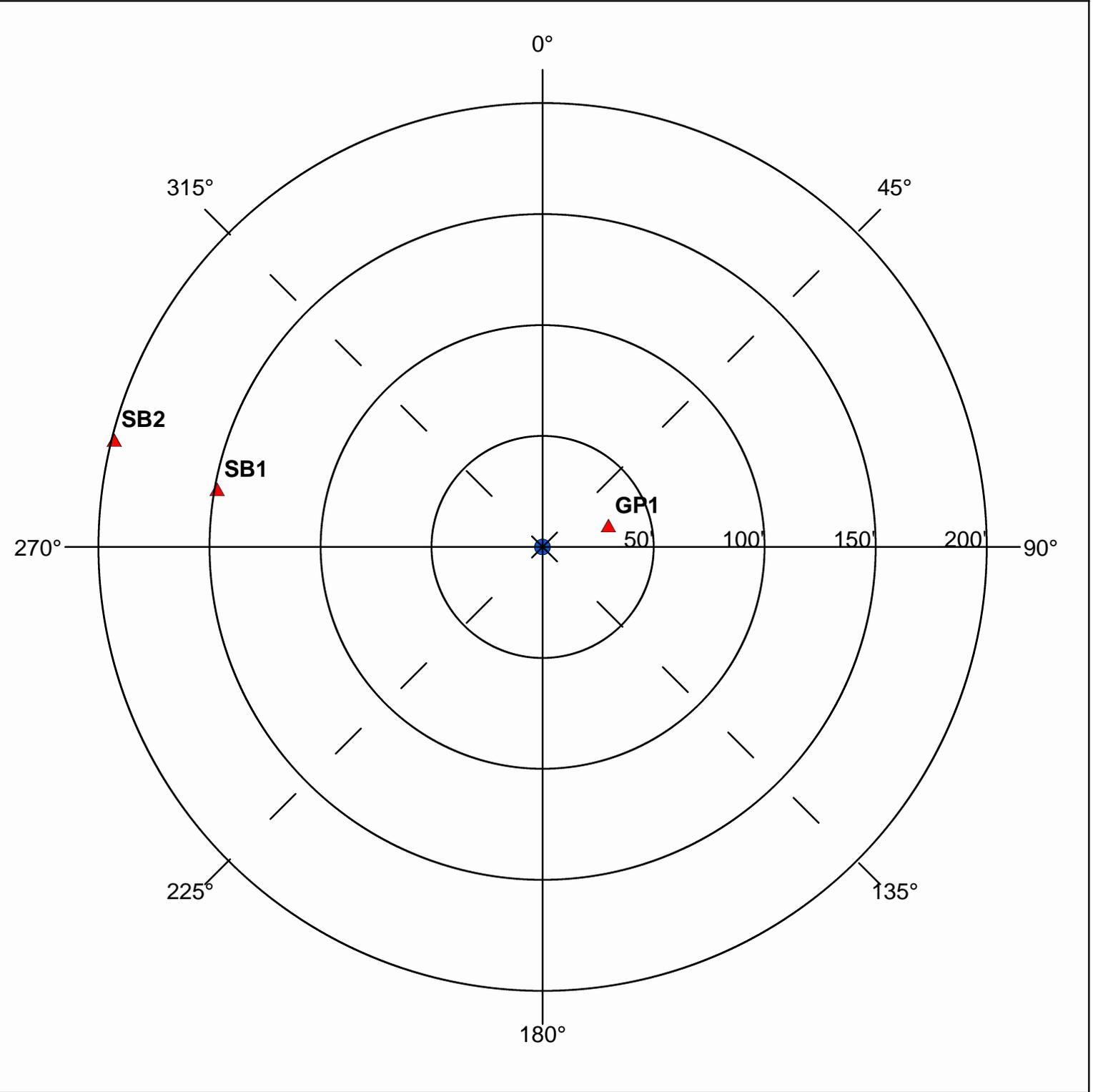
UNIQUE WELL NO.

161426

SETBACK DISTANCES

All potential contaminant sources must be noted on sketch.

Record the distance and approximate compass bearing of each potential contaminant source from the well, and identify the source using the "Source Code". Unlabeled points on the map are unsealed wells.



Were the isolation distances maintained for the new sources of contamination?

Y

N

N/A

Is the system monitoring existing nonconforming sources of contamination?

Y

N

N/A

Reminder Question: Were the wellhead protection measure(s) implemented?

INSPECTOR

Bailey, Pat (SWP)

DATE

8 - 12 - 2013

PWS ID / FACILITY ID	1850009 S02	UNIQUE WELL NO.	161426
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RECOMMENDED WELLHEAD PROTECTION (WHP) MEASURES	WHP MEASURE IMPLEMENTED? Y or N	DATE VERIFIED
Any sewer lines that are observed to be leaking, cracked, or deteriorated, should be replaced.		
Floor drains, such as in pumphouses, that discharge to a gravel pocket or seepage pit should have a "No Dumping" sign posted.		

COMMENTS
<p>SB1 represents the sewer line from apartment building to main sewer under Oakview Dr. SB2 represents sewer line under Oakview Dr. GP1 Need confirmation of exact location of gravel pocket. Unique number 220517 represents Saint Charles 4 before it was deepened....no additional operating well is present. Building to the NE is for storage.</p>

For further information, please contact:

**Minnesota Department of Health
 Drinking Water Protection Section
 Source Water Protection Unit
 P.O. Box 64975
 St. Paul, Minnesota 55164-0975**

**Section Receptionist: 651-201-4700
 Division TDD: 651-201-5797 or MN Relay Service @ 1-800-627-3529 and ask for 651-201-5000**

INNER WELLHEAD MANAGEMENT ZONE (IWMZ) -
 POTENTIAL CONTAMINANT SOURCE INVENTORY (PCSI) REPORT

PUBLIC WATER SYSTEM INFORMATION

PWS ID	1850009	COMMUNITY
NAME	Saint Charles	
ADDRESS	St. Charles Water Superintendent, c/o Mr. Kyle A. Karger, 830 Whitewater Avenue, St. Charles, MN 55972	

FACILITY (WELL) INFORMATION

NAME	Well #5	IS THERE A WELL LOG OR ADDITIONAL CONSTRUCTION INFORMATION AVAILABLE? <input type="checkbox"/> YES (Please attach a copy) <input type="checkbox"/> NO <input type="checkbox"/> UNDETERMINED
FACILITY ID	S03	
UNIQUE WELL NO.	161430	
COUNTY	Winona	

PWS ID / FACILITY ID	1850009 S03	UNIQUE WELL NO.	161430
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PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)			LOCATION		
		Minimum Distances		Sensitive Well'	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)
		Community	Non-community				

Agricultural Related

*AC1	Agricultural chemical buried piping	50	50		N		
*AC2	Agricultural chemical multiple tanks or containers for residential retail sale or use, no single tank or container exceeding, but aggregate volume exceeding 56 gal. or 100 lbs. dry weight	50	50		N		
ACP	Agricultural chemical tank or container with 25 gal. or more or 100 lbs. or more dry weight, or equipment filling or cleaning area without safeguards	150	150		N		
ACS	Agricultural chemical storage or equipment filling or cleaning area with safeguards	100	100		N		
ACR	Agricultural chemical storage or equipment filling or cleaning area with safeguards and roofed	50	50		N		
ADW	Agricultural drainage well ² (Class V well - illegal ³)	50	50		N		
AAT	Anhydrous ammonia tank (stationary tank)	50	50		N		
AB1	Animal building, feedlot, confinement area, or kennel, 0.1 to 1.0 animal unit (stockyard)	50	20	100/40	N		
AB2	Animal building or poultry building, including a horse riding area, more than 1.0 animal unit	50	50	100	N		
ABS	Animal burial area, more than 1.0 animal unit	50	50		N		
FWP	Animal feeding or watering area within a pasture, more than 1.0 animal unit	50	50	100	N		
AF1	Animal feedlot, unroofed, 300 or more animal units (stockyard)	100	100	200	N		
AF2	Animal feedlot, more than 1.0, but less than 300 animal units (stockyard)	50	50	100	N		
AMA	Animal manure application	use discretion	use discretion		N		
REN	Animal rendering plant	50	50		N		
MS1	Manure (liquid) storage basin or lagoon, unpermitted or noncertified	300	300	600	N		
MS2	Manure (liquid) storage basin or lagoon, approved earthen liner	150	150	300	N		
MS3	Manure (liquid) storage basin or lagoon, approved concrete or composite liner	100	100	200	N		
MS4	Manure (solid) storage area, not covered with a roof	100	100	200	N		
OSC	Open storage for crops	use discretion	use discretion		N		

SSTS Related

AA1	Absorption area of a soil dispersal system, average flow greater than 10,000 gal./day	300	300	600	N		
AA2	Absorption area of a soil dispersal system serving a facility handling infectious or pathological wastes, average flow 10,000 gal./day or less	150	150	300	N		
AA3	Absorption area of a soil dispersal system, average flow 10,000 gal./day or less	50	50	100	N		
AA4	Absorption area of a soil dispersal system serving multiple family residences or a non-residential facility and has the capacity to serve 20 or more persons per day (Class V well) ²	50/300/150 ⁴	50/300/150 ⁴	100/600/300 ⁴	N		
CSP	Cesspool	75	75	150	N		
AGG	Dry well, leaching pit, seepage pit	75	75	150	N		
*FD1	Floor drain, grate, or trough connected to a buried sewer	50	50		N		
*FD2	Floor drain, grate, or trough if buried sewer is air-tested, approved materials, serving one building, or two or less single-family residences	50	20		N		
*GW1	Gray-water dispersal area	50	50	100	N		
LC1	Large capacity cesspools (Class V well - illegal) ²	75	75	150	N		

PWS ID / FACILITY ID	1850009 S03	UNIQUE WELL NO.	161430
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PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)				LOCATION	
		Minimum Distances		Sensitive Well'	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)
		Community	Non-community				
MVW	Motor vehicle waste disposal (Class V well - illegal) ²	illegal	illegal		N		
PR1	Privy, nonportable	50	50	100	N		
PR2	Portable (privy) or toilet	50	20		N		
*SF1	Watertight sand filter; peat filter; or constructed wetland	50	50		N		
SET	Septic tank	50	50		N		
HTK	Sewage holding tank, watertight	50	50		N		
SS1	Sewage sump capacity 100 gal. or more	50	50		N		
SS2	Sewage sump capacity less than 100 gal., tested, conforming to rule	50	20		N		
*ST1	Sewage treatment device, watertight	50	50		N		
SB1	Sewer, buried, approved materials, tested, serving one building, or two or less single-family residences	50	20		Y	75	Y
SB2	Sewer, buried, collector, municipal, serving a facility handling infectious or pathological wastes, open-jointed or unapproved materials	50	50		Y	100	Y
SB2	Sewer, buried, collector, municipal, serving a facility handling infectious or pathological wastes, open-jointed or unapproved materials	50	50		Y	100	Y
*WB1	Water treatment backwash holding basin, reclaim basin, or surge tank with a direct sewer connection	50	50		N		
*WB2	Water treatment backwash holding basin, reclaim basin, or surge tank with a backflow protected sewer connection	20	20		N		

Land Application

SPT	Land spreading area for sewage, septage, or sludge	50	50	100	N		
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Solid Waste Related

COS	Commercial compost site	50	50		N		
CD1	Construction or demolition debris disposal area	50	50	100	N		
*HW1	Household solid waste disposal area, single residence	50	50	100	N		
LF1	Landfill, permitted demolition debris, dump, or mixed municipal solid waste from multiple persons	300	300	600	N		
SVY	Scrap yard	50	50		N		
SWT	Solid waste transfer station	50	50		N		

Storm Water Related

SD1	Storm water drain pipe, 8 inches or greater in diameter	50	20		Y	135	Y
SWI	Storm water drainage well ² (Class V well - illegal ³)	50	50		N		
SM1	Storm water pond greater than 5000 gal.	50	35		N		

Wells and Borings

*EB1	Elevator boring, not conforming to rule	50	50		N		
*EB2	Elevator boring, conforming to rule	20	20		N		
MON	Monitoring well	record dist.	record dist.		N		
WEL	Operating well	record dist.	record dist.		N		
UUW	Unused, unsealed well or boring	50	50		N		

General

*CR1	Cistern or reservoir, buried, nonpressurized water supply	20	20		N		
PLM	Contaminant plume	50	50		N		
*CW1	Cooling water pond, industrial	50	50	100	N		
DC1	Deicing chemicals, bulk road	50	50	100	N		
*ET1	Electrical transformer storage area, oil-filled	50	50		N		
GRV	Grave or mausoleum	50	50		N		
GP1	Gravel pocket or French drain for clear water drainage only	20	20		Y	40	Y
*HS1	Hazardous substance buried piping	50	50		N		
HS2	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight, without safeguards	150	150		N		
HS3	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight with safeguards	100	100		N		
HS4	Hazardous substance multiple storage tanks or containers for residential retail sale or use, no single tank or container exceeding 56 gal. or 100 lbs., but aggregate volume exceeding	50	50		N		
HWF	Highest water or flood level	50	N/A		N		
*HG1	Horizontal ground source closed loop heat exchanger buried piping	50	50		N		
*HG2	Horizontal ground source closed loop heat exchanger buried piping and horizontal piping, approved materials and heat transfer fluid	50	10		N		
IWD	Industrial waste disposal well (Class V well) ²	illegal ³	illegal ³		N		
IWS	Interceptor, including a flammable waste or sediment	50	50		N		

PWS ID / FACILITY ID

1850009 S03

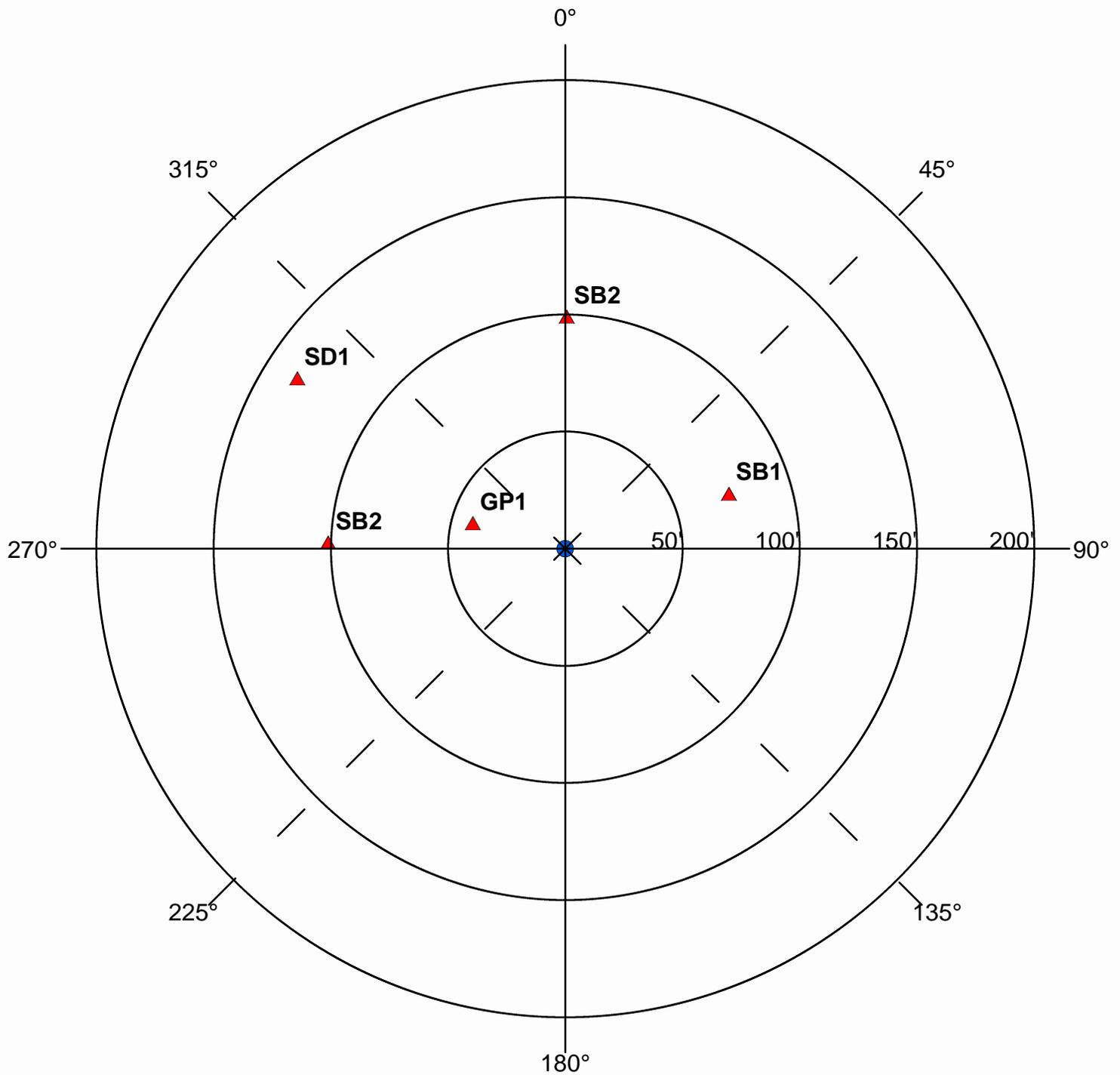
UNIQUE WELL NO.

161430

SETBACK DISTANCES

All potential contaminant sources must be noted on sketch.

Record the distance and approximate compass bearing of each potential contaminant source from the well, and identify the source using the "Source Code". Unlabeled points on the map are unsealed wells.



Were the isolation distances maintained for the new sources of contamination?

Y

N

N/A

Is the system monitoring existing nonconforming sources of contamination?

Y

N

N/A

Reminder Question: Were the wellhead protection measure(s) implemented?

INSPECTOR

Bailey, Pat (SWP)

DATE

8 - 12 - 2013

PWS ID / FACILITY ID	1850009 S03	UNIQUE WELL NO.	161430
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RECOMMENDED WELLHEAD PROTECTION (WHP) MEASURES	WHP MEASURE IMPLEMENTED? Y or N	DATE VERIFIED
Any sewer lines that are observed to be leaking, cracked, or deteriorated, should be replaced.		
Best management practices should be employed for outdoor chemical use, to prevent stormwater from moving chemical contaminants to surface waters or where wells could be impacted.		
Floor drains, such as in pumphouses, that discharge to a gravel pocket or seepage pit should have a "No Dumping" sign posted.		

COMMENTS
<p>Well 1 drilled in the 1890s was sealed in 1982 on the same parcel.</p> <p>Sewer lines under Richland Avenue (north-south) represented by SB2 to the west of well. Sewer line under E 14th St.north of the well represented by SB2. SB1 is sewer line from the storage building to the east of the well house.</p> <p>Railroad line approximately 100 feet (south) of the well.</p> <p>SD1 represents storm water drain pipe under Richland Ave draining to the north.</p>

For further information, please contact:

**Minnesota Department of Health
Drinking Water Protection Section
Source Water Protection Unit
P.O. Box 64975
St. Paul, Minnesota 55164-0975**

**Section Receptionist: 651-201-4700
Division TDD: 651-201-5797 or MN Relay Service @ 1-800-627-3529 and ask for 651-201-5000**

Appendix C: 2012 Consumer Confidence Report

CONSUMER CONFIDENCE REPORT

PWSID: 1850009

City of Saint Charles 2012 Drinking Water Report

The City of Saint Charles is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2012. The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

Source of Water

The City of Saint Charles provides drinking water to its residents from a groundwater source: three wells ranging from 667 to 736 feet deep, that draw water from the Multiple, Ironton-Galesville, and Ironton-Galesville-Eau Claire aquifers.

The Minnesota Department of Health has determined that the source(s) used to supply your drinking water is not particularly susceptible to contamination. If you wish to obtain the entire source water assessment regarding your drinking water, please call 651-201-4700 or 1-800-818-9318 during normal business hours. Also, you can view it on line at www.health.state.mn.us/divs/eh/water/swp/swa.

Call **507-932-3020** if you have questions about the City of Saint Charles drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.

Results of Monitoring

No contaminants were detected at levels that violated federal drinking water standards. However, some contaminants were detected in trace amounts that were below legal limits. The table that follows shows the contaminants that were detected in trace amounts last year. (Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for in 2012. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.)

Key to abbreviations:

MCLG—Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MCL—Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MRDL—Maximum Residual Disinfectant Level.

MRDLG—Maximum Residual Disinfectant Level Goal.

AL—Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirement which a water system must follow.

90th Percentile Level—This is the value obtained after disregarding 10 percent of the samples taken that had the highest levels. (For example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result, which represents 10 percent of the samples.) Note: In situations in which only 5 samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.

CONSUMER CONFIDENCE REPORT

PWSID: 1850009

pCi/l—PicoCuries per liter (a measure of radioactivity).

ppm—Parts per million, which can also be expressed as milligrams per liter (mg/l).

ppb—Parts per billion, which can also be expressed as micrograms per liter (µg/l).

nd—No Detection.

N/A—Not Applicable (does not apply).

Contaminant (units)	MCLG	MCL	Level Found		Typical Source of Contaminant
			Range (2012)	Average /Result*	
Alpha Emitters (pCi/l)	0	15.4	nd-5.6	5.15	Erosion of natural deposits.
Barium (ppm) (12/10/2008)	2	2	N/A	.07	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Combined Radium (pCi/l)	0	5.4	4.2-5.4	5.4	Erosion of natural deposits.
Fluoride (ppm)	4	4	1.1-1.2	1.18	State of Minnesota requires all municipal water systems to add fluoride to the drinking water to promote strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Nitrate (as Nitrogen) (ppm)	10.4	10.4	nd-.05	.05	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

*This is the value used to determine compliance with federal standards. It sometimes is the highest value detected and sometimes is an average of all the detected values. If it is an average, it may contain sampling results from the previous year.

Contaminant (units)	MRDLG	MRDL	****	*****	Typical Source of Contaminant
Chlorine (ppm)	4	4	1.1-1.3	1.18	Water additive used to control microbes.

****Highest and Lowest Monthly Average.

*****Highest Quarterly Average.

Contaminant (units)	MCLG	AL	90% Level	# sites over AL	Typical Source of Contaminant
Copper (ppm) (07/20/2011)	1.3	1.3	.67	0 out of 20	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb) (07/20/2011)	0	15	2	0 out of 20	Corrosion of household plumbing systems; Erosion of natural deposits.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Saint Charles is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for

CONSUMER CONFIDENCE REPORT

PWSID: 1850009

several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Monitoring may have been done for additional contaminants that do not have MCLs established for them and are not required to be monitored under the Safe Drinking Water Act. Results may be available by calling 651-201-4700 or 1-800-818-9318 during normal business hours.

Compliance with National Primary Drinking Water Regulations

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U. S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Appendix D: LGU Letters & Comments

There were no comments received from the LGU's.

There were no comments at the public hearing on August 26, 2014.

City of St. Charles

830 Whitewater Avenue
St. Charles, MN 55972

Phone (507) 932-3020

FAX (507) 932-5301

www.stcharlesmn.org



Mayor: William J. Spitzer, Council: John Schaber, Orv Dahl, Wayne Getz, David Braun, Adm.: Nick Koverman

Date: May 16, 2014

To: Marcia Ward, Chairperson, Winona County Board
Matt Flynn, Chairperson, Olmsted County Board
Jim Ruhberg, Chairperson, St Charles Township Board
Gerald Loftus, Chairperson, Dover Township Board
Jim Riddle, Chairperson, Winona County Soil and Water Conservation District
Andy Hart, Chairperson, Olmsted County Soil and Water Conservation District
Pat Bailey, Planner, Minnesota Department of Health

From: Nick Koverman, City Administrator

Re: Wellhead Protection Plan for the City of St. Charles, Part II

The City of St. Charles is in the process of developing a wellhead protection plan for its drinking water supply wells. Enclosed for your review and comment is the draft wellhead protection plan, Part II, for this system as required in the Minnesota Wellhead Protection Rule (part 4720.5350, subparts 1-3). This portion of the plan includes information pertaining to:

1. The inventory of potential contaminants of concern within the drinking water supply management area;
2. The data that was considered in this portion of the plan;
3. Issues, problems, and concerns within the drinking water supply management area;
4. Goals, objectives, and action strategies to address the issues and concerns within the drinking water supply management area;
5. A plan evaluation strategy; and
6. A contingency strategy in the event of water system disruption.

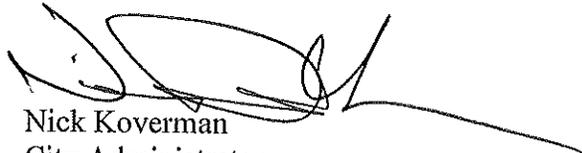
Your comments on this portion of the plan will be accepted through the 60-day comment period. Please send your written comments to Nick Koverman at nkoverman@stcharles.org by July 15, 2014,

Consistent with the Wellhead Protection Rule (part 4720.5350, subpart 4), a Public Hearing has been scheduled on Tuesday, July 22, at 7 p.m. at City Hall (830 Whitewater Avenue) to discuss issues and address all comments related to the enclosed document.



We look forward to your participation and as always appreciate your time and consideration.

Yours In Service,



Nick Koverman
City Administrator

cc: Sheila Harmes Winona County Water Planner and Whitewater River Watershed Project
Terry Lee, Olmsted County Water Resources Coordinator
Daryl Buck, District Manager Winona County SWCD
Floyd Whitaker, District Manager, Olmsted County SWCD
Roger Irhke, Township Cooperative Planning Association
Trudi Witkowski, Minnesota Department of Health

Notice of Public Meeting

The St. Charles City Council will be holding a Public Information Meeting in City Hall, 830 Whitewater Avenue, On Tuesday, August 26, 2014 at 5:00 p.m. to take comment related to the proposed St. Charles Wellhead Protection Part II plan.

The City of St. Charles is in the process of developing a wellhead protection plan for its drinking water supply wells. As required by the Minnesota Wellhead Protection Rule (part 4720.5330, subpart 6), the Minnesota Department of Health approved Part 1 of the wellhead protection plan for our system. This portion of the plan includes information pertaining to:

1. The inventory of potential contaminants of concern within the drinking water supply management area;
2. The data that was considered in this portion of the plan, and
3. Issues, problems, and concerns within the drinking water supply management area;
4. Goals, objectives, and action strategies to address the issues and concerns within the drinking water supply management area;
5. A plan evaluation strategy; and
6. A contingency strategy in the event of water system disruption.

Consistent with the Wellhead Protection Rule (part 4720.5330, subpart 7), a Public Information Meeting has been scheduled at to discuss issues and concerns with this portion of the plan. We welcome your participation at this event.

A copy of the plan will be available for inspection at City Hall.

Nick Koverman,
City Administrator

Date: August 11, 2014

Appendix E: MNWARN Agreement

MINNESOTA WATER AGENCY RESPONSE NETWORK (MnWARN) MUTUAL AID AGREEMENT

This Minnesota Water Agency Response Network (MnWARN) Mutual Aid Agreement is made and entered into by the undersigned Parties.

WHEREAS, the Parties hereto are authorized by law or home rule charter to establish a water, wastewater or storm water utility; and

WHEREAS, the Parties hereto have established a water, wastewater and/or storm water utility; and

WHEREAS, the Parties recognize that an Emergency may require Assistance in the form of personnel, equipment and supplies from a Utility outside the Governmental Unit; and

WHEREAS, the governing bodies of the Parties have investigated the facts and determined that it is in their best interests to authorize their Utilities to work cooperatively with another Party's Utilities when there is an Emergency; and

WHEREAS, Minnesota Statutes, Section 471.59 authorizes the Parties by agreement of their governing bodies to jointly or cooperatively exercise any power common to them.

NOW, THEREFORE, in consideration of the mutual covenants made herein, the Parties agree as follows:

ARTICLE I PURPOSE

The Parties recognize that in an Emergency, their Utilities may require Assistance in the form of personnel, equipment and supplies from outside the area of impact. The purpose of this Agreement is to provide a framework, in the event of an Emergency, for the Parties to participate in an intrastate program for mutual aid assistance to provide water, wastewater and storm water utility services. The Parties authorize their Utilities to cooperatively assist other Party's Utilities when there is an Emergency, subject to the discretion of the Responding Party's Authorized Official as set forth in Article IV.

ARTICLE II DEFINITIONS

- A. Agreement — This Water Agency Response Network Mutual Aid Agreement.
- B. Assistance — Resources, including but not limited to personnel, equipment, material and supplies that a Responding Party's Utility provides to a Receiving Party's Utility.
- C. Authorized Official — An employee or official of a Party's Utility that is authorized by the Party's governing body to request Assistance or provide Assistance under this Agreement.
- D. Emergency — Any occurrence that is, or is likely to be, beyond the control of the services, personnel, equipment or facilities of a Party's Utility.
- E. Governmental Unit — A city, county or township in Minnesota or a city's public utilities commission.
- F. MnWARN — The framework for public water, wastewater and storm water utilities in Minnesota to assist other public water, wastewater and storm water utilities when there is an Emergency that requires Assistance from another Utility. The framework includes this Agreement and other resources to be developed and coordinated by the Statewide Committee to implement the purpose of this Agreement.
- G. National Incident Management System (NIMS) — A national, standardized approach to incident management and response that sets uniform processes and procedures for emergency response operations.
- H. Party/Parties — One or more governmental units that has a water, wastewater or stormwater utility that executes this Agreement or adopts this Agreement by resolution pursuant to Article XIV.
- I. Period of Assistance — The period of time when a Responding Party assists a Receiving Party. The period commences when personnel, equipment or supplies depart from a Responding Party's facility and ends when the resources return to their facility. All protections identified in the Agreement apply during this period. The Period of Assistance may occur during response to or recovery from an Emergency.
- J. Receiving Party — A Party who requests and receives Assistance under this Agreement.
- K. Responding Party — A Party that provides Assistance to another Party pursuant to this Agreement.
- L. Statewide Committee — The committee responsible for overseeing MnWARN on a statewide level.
- M. Steering Committee — The leadership group that established MnWARN and the development of this Agreement.
- N. Utility/Utilities — A water, wastewater and/or storm water utility of a Party.

**ARTICLE III
ADMINISTRATION**

A. Statewide Committee.

1. Voting Members. MnWARN shall be administered through a Statewide Committee. The Statewide Committee shall be comprised of nine (9) voting members. The voting members of the Statewide Committee shall be comprised as follows: (i) an employee or official of a Utility located in Region 1 of the Minnesota Division of Homeland Security and Emergency Management Regions; (ii) an employee or official of a Utility located in Region 2 of the Minnesota Division of Homeland Security and Emergency Management Regions; (iii) an employee or official of a Utility located in Region 3 of the Minnesota Division of Homeland Security and Emergency Management Regions; (iv) an employee or official of a Utility located in Region 4 of the Minnesota Division of Homeland Security and Emergency Management Regions; (v) an employee or official of a Utility located in Region 5 of the Minnesota Division of Homeland Security and Emergency Management Regions; (vi) an employee or official of a Utility located in Region 6 of the Minnesota Division of Homeland Security and Emergency Management Regions; (vii) an employee or official of the Minnesota Rural Water Association; (viii) a representative from the Minnesota Section of the American Water Works Association; and (ix) a representative of the Minnesota Wastewater Operator's Association.
 - a. Initial Voting Members. The initial voting members representing the six regions of the Minnesota Division of Homeland Security and Emergency Management Regions shall be selected by the Steering Committee. The other three voting members shall be selected by the organization they represent.
 - b. Subsequent Voting Members. The appointment or election of subsequent voting members shall be done in accordance with bylaws to be adopted by the Statewide Committee.
 - c. Terms. The terms of the voting members shall be established by the bylaws to be adopted by the Statewide Committee.
 - d. Changes. The Statewide Committee may change the number or composition of the voting members in accordance with its bylaws.
2. Advisory Members. There shall be at least six (6) advisory members of the Statewide Committee who shall not be entitled to vote. The advisory member shall consist of a representative to be selected by each of the following organizations: (i) the Minnesota Pollution Control Agency; (ii) the Minnesota Department of Health; (iii) Minnesota Homeland Security and Emergency Management; (iv) the Association of Minnesota Emergency Managers; (v) the Minnesota Municipal Utilities Association; and (vi) the League of Minnesota Cities. The voting members of the Statewide Committee may change the number or composition of the advisory members in accordance with its bylaws. The terms of the advisory members shall be established by the bylaws of the Statewide Committee.
3. Officers. The Statewide Committee shall have the following officers: a Chair, a Vice-Chair and a Secretary. The initial officers shall be elected by the Statewide Committee at its first meeting. The terms of the initial officers and subsequently elected officers

shall be established by the bylaws of the Statewide Committee. The officers shall have the following powers:

- a. Chair. The Chair shall have no more power than any other member of the Statewide Committee except that the Chair shall act as the presiding officer at all Statewide Committee meetings and may have other duties as assigned from time to time and prescribed by the Statewide Committee.
- b. Vice-Chair. The Vice-Chair shall act as the presiding officer at any Statewide Committee meeting not attended by the Chair and shall perform the Chair's duties in the Chair's absence. The Vice-Chair may have other duties as assigned from time to time and prescribed by the Statewide Committee.
- c. Secretary. The Secretary shall be responsible for ensuring that minutes are prepared for all Statewide Committee meetings. The Secretary shall also keep all books and records of the Statewide Committee and shall give all notices required by law, and may have other duties as assigned from time to time and prescribed by the Statewide Committee. The Statewide Committee may delegate all or part of the Secretary's duties required under this Section to another person; provided that such delegation shall not relieve the Secretary of ultimate responsibility for these duties

4. Powers. The Statewide Committee shall have the following powers:

- a. To coordinate emergency planning and response activities of Utilities in coordination with the emergency management and public health system of the State;
- b. To adopt policies and procedures to further the purpose of MnWARN;
- c. To establish committees, including regional committees, to assist in implementing the purpose of MnWARN;
- d. To develop a resource list of personnel, equipment, supplies and other resources that may be used to provide Assistance;
- e. To establish a website to facilitate the Parties' use of MnWARN;
- f. To develop protocols, forms or procedures for Parties to request assistance;
- g. To develop educational materials; and
- h. To develop training materials and conduct training for Parties.

5. Meetings. The Statewide Committee shall hold meetings as follows:

- a. Organizational Meeting. An organizational meeting shall be held at a time and place to be determined by the Steering Committee.
- b. Regular Meetings. Thereafter, the Statewide Committee shall meet at least annually. A schedule of regular meetings may be adopted by the Statewide

Committee at the organizational meeting. A schedule of regular meetings may be changed from time to time as deemed necessary by the Statewide Committee.

- c. Special Meetings. Special meetings of the Statewide Committee may be called by the Chair and must be called by the Chair upon written request of two Statewide Committee members.
- d. Quorum. The Statewide Committee shall not take official action unless a majority of the voting members are present in person or via electronic communication.

ARTICLE IV REQUESTS FOR ASSISTANCE

- A. Party Responsibility. The Parties shall identify an Authorized Official and one or more alternates; provide contact information including 24-hour access; and maintain the resource information required contained in the member information form to be developed by the Statewide Committee. The Parties shall update this information as required by the bylaws.

In the event of an Emergency, a Party's Authorized Official may request Assistance from a Party's Utility. The Authorized Official must specifically state that Assistance is being requested under MnWARN to activate the provisions of this Agreement. Requests for Assistance can be made orally or in writing. When made orally, the request for Assistance shall be prepared in writing as soon as practicable. Requests for Assistance shall be directed to the Authorized Official of a Party. Specific protocols for requesting Assistance shall be established by the Statewide Committee.

- B. Response to a Request for Assistance. After a Party receives a request for Assistance, the Authorized Official should evaluate if resources are available to respond to the request for Assistance. Following the evaluation, the Responding Party's Authorized Official shall inform, as soon as possible, the Receiving Party's Authorized Official if it can provide Assistance. If Assistance is provided, the Responding Party shall inform the Receiving Party about the type of available resources and the approximate arrival time of such resources.
- C. Discretion of Responding Party's Authorized Official. Adoption of this Agreement does not create any duty to provide Assistance. When a Party receives a request for Assistance, the Authorized Official shall have absolute discretion to provide Assistance or to not provide Assistance. A Party's decision to provide Assistance or not provide Assistance shall be final. No Party nor any employee or officer of any Party shall be liable to any other Party or to any person for failure of any Party to furnish Assistance or for recalling Assistance.

ARTICLE V RESPONDING PARTY PERSONNEL

- A. National Incident Management System (NIMS). When providing Assistance under this Agreement, the Requesting Party's Utility and the Responding Party's Utility shall be organized and function under NIMS.
- B. Control. The personnel of a Responding Party providing Assistance shall be under the direction and control of the Receiving Party until the Responding Party's Authorized Official withdraws Assistance. The Receiving Party's Authorized Official shall coordinate response

activities with the Responding Party's Authorized Official. Whenever practical, Responding Party personnel should plan to be self sufficient for up to 72 hours.

- C. Food and Shelter. The Receiving Party shall supply reasonable food and shelter for Responding Party personnel for Assistance that is provided for more than 72 hours. If the Receiving Party is unable to provide food and shelter for a Responding Party's personnel, the Responding Party's Authorized Official or designee is authorized to secure food and shelter for its personnel and shall be entitled to reimbursement for such expenses from the Receiving Party. Reimbursement for food and shelter shall reflect the actual costs incurred by the Responding Party. If receipts are not available, the Responding Party cannot request reimbursement in excess of the State per diem rates for that area.
- D. Communication. The Receiving Party shall provide Responding Party personnel with radio equipment as available, or radio frequency information to program existing radios, in order to facilitate communication among personnel providing Assistance.
- E. Status. Unless otherwise provided by law, the Responding Party's officers and employees retain the same privileges, immunities, rights, duties, and benefits as provided in their respective jurisdictions.
- F. Licenses and Permits. To the extent permitted by law, Responding Party personnel who hold licenses, certificates, or permits evidencing professional, mechanical, or other skills shall be allowed to carry out activities and tasks relevant and related to their respective credentials during the Period of Assistance.
- G. Right to Withdraw. The Responding Party's Authorized Official retains the right to withdraw some or all of its resources at any time. Notice of intention to withdraw must be communicated to the Receiving Party's Authorized Official as soon as possible.

ARTICLE VI COST REIMBURSEMENT

Unless otherwise mutually agreed in whole or in part, the Receiving Party shall reimburse the Responding Party for each of the following categories of costs incurred while providing Assistance during the Period of Assistance.

- A. Personnel. A Responding Party shall be reimbursed for its actual costs paid to personnel providing Assistance during the Period of Assistance. The Responding Party's designated supervisor(s) must keep accurate records of work performed by personnel during the Period of Assistance. Reimbursement to the Responding Party must consider all personnel costs, such as salaries or hourly wages, including overtime, and costs for fringe benefits and indirect costs.
- B. Equipment. The Receiving Party shall reimburse the Responding Party for the use of equipment during a Period of Assistance pursuant to the Responding Party's rate schedule. If the Responding Party does not have a rate schedule, the rates for equipment use must be based on the Federal Emergency Management Agency's (FEMA) Schedule of Equipment Rates. If a Responding Party uses rates different from those in the FEMA Schedule of Equipment Rates, the Responding Party must provide such rates in writing to the Receiving Party prior to supplying Assistance. Reimbursement for equipment not referenced on a Party's rate schedule or the FEMA Schedule of Equipment Rates must be developed based on actual recovery of costs.

- C. Materials and Supplies. The Receiving Party must reimburse the Responding Party in kind or at actual replacement cost, plus handling charges, for use of expendable or non-returnable supplies. The Responding Party must not charge direct fees or rental charges to the Receiving Party for other supplies and reusable items that are returned to the Responding Party in a clean, damage-free condition. Reusable supplies that are returned to the Responding Party with damage must be treated as expendable supplies for purposes of cost reimbursement.
- D. Payment Period. The Responding Party must provide an itemized bill to the Receiving Party for all expenses it incurred as a result of providing Assistance under this Agreement. The Responding Party must send the itemized bill not later than ninety (90) days following the end of the Period of Assistance. The Receiving Party must pay the undisputed portion of the bill in full on or before the forty-fifth (45th) day following the billing date. Unpaid bills become delinquent upon the forty-sixth (46th) day following the billing date, and, once delinquent, the bill accrues interest at the standard rate of interest charged by the Responding Party for unpaid bills. If the Responding Party does not have a standard rate, the interest rate shall be the rate of prime, as reported by the *Wall Street Journal*, plus two percent (2%) per annum. Any undisputed amount must be resolved using the procedures set forth in Article VII.

ARTICLE VII DISPUTES

The Parties agree to act in good faith to undertake resolution of disputes, in an equitable and timely manner and in accordance with the provisions of this Agreement. If disputes cannot be resolved informally by the Parties, the following procedures shall be used:

- A. Mediation. If there is a failure between Parties to resolve a dispute on their own, the Parties shall first attempt to mediate the dispute. The Parties shall agree upon a mediator, or if they cannot agree, the Statewide Committee Chair shall select a mediator. If the Chair of the Statewide Committee, has a conflict of interest, the duty for selecting a mediator shall pass to the Vice-Chair.
- B. Arbitration. If the dispute remains unresolved following mediation, the dispute shall be submitted to arbitration under the Uniform Arbitration Act, Minnesota Statutes, Sections 572.08-.30. If the Parties cannot agree on one or more arbitrators, the arbitrator(s) shall be selected using the same procedure set forth for selecting a mediator. The decision of the majority of the arbitrators shall not be binding upon the Parties. If the arbitration decision is not accepted, the Parties may pursue any other legal remedy to resolve the dispute.

ARTICLE VIII RECEIVING PARTY'S DUTY TO INDEMNIFY

For the purposes Minnesota Municipal Tort Liability Act, Minnesota Statutes, Chapter 466, the employees and officers of the Responding Party are deemed to be employees (as defined in Minnesota Statutes, Section 466.01, subdivision 6) of the Receiving Party.

The Receiving Party shall defend, indemnify and hold harmless, the Responding Party, its officers, employees, volunteers and agents from all claims, loss, damage, injury, and liability of

every kind, nature, and description, directly or indirectly arising from the Responding Party's Assistance during the Period of Assistance. The scope of the Receiving Party's duty to indemnify includes, but is not limited to, suits arising from, or related to, negligent or wrongful use of equipment or supplies on loan to the Receiving Party, or faulty workmanship or other negligent acts, errors, or omissions by the Responding Party personnel. The Receiving Party shall not be required to defend and indemnify the Responding Party for any willful or wanton misconduct of the Responding Party or its officer, employees, volunteers or agents. Under no circumstances, however, shall a party be required to pay on behalf of itself and other parties, any amounts in excess of the limits of liability established in Minnesota Statutes, Chapter 466 applicable to any one party. The intent of this article is to impose on each Receiving Party a limited duty to defend and indemnify a Responding Party for claims arising within the Receiving Party's jurisdiction subject to the limits of liability under Minnesota Statutes, Chapter 466. The purpose of creating this duty to defend and indemnify is to simplify the defense of claims by eliminating conflicts among defendants and to permit liability claims against multiple defendants from a single occurrence to be defended by a single attorney.

The Receiving Party's duty to indemnify is subject to, and shall be applied consistent with, the conditions set forth in Article X.

ARTICLE IX DAMAGE TO EQUIPMENT

Each Party shall be responsible for damages to or loss of its own equipment. Each Party waives the right to sue any other Party for any damages to or loss of its equipment, even if the damages or losses were caused wholly or partially by the negligence of any other Party or its officers, employees, or volunteers.

ARTICLE X WORKERS' COMPENSATION

Each Party shall be responsible for injuries or death of its own personnel. Each Party will maintain workers' compensation insurance or self-insurance coverage, covering its personnel while they are providing Assistance pursuant to this Agreement. Each Party waives the right to sue another Party for any workers' compensation benefits paid to its own personnel while they are providing Assistance pursuant to this Agreement. Each Party waives the right to sue another Party for any workers' compensation benefits paid to its own employee or volunteer or their dependents, even if the injuries were caused wholly or partially by the negligence of another Party or its officers, employees or volunteers.

ARTICLE XI INSURANCE

Parties to this Agreement shall maintain the following liability coverages: (1) commercial general liability; and (2) automobile liability, including owned, hired, and non-owned automobiles. Each policy shall have a limit at least equal to the maximum municipal liability limit in Section 466.04, subd. 1. If the policy contains a general aggregate limit, the general aggregate limit shall not be less than double the maximum municipal liability limit in Section 466.04, subd. 1.

**ARTICLE XII
WITHDRAWAL**

A Party may withdraw from this Agreement by providing written notice of its intent to withdraw to the Statewide Committee Secretary. Withdrawal takes effect 60 days after notice is sent.

**ARTICLE XIII
INTRASTATE AND INTERSTATE MUTUAL AID AND ASSISTANCE PROGRAMS**

To the extent practicable, Parties to this Agreement are encouraged to participate in mutual aid and assistance activities conducted under the State of Minnesota Intrastate Mutual Aid and Assistance Program and the Interstate Emergency Management Assistance Compact (EMAC). Parties may voluntarily agree to participate in an interstate Mutual Aid and Assistance Program for Utilities through this Agreement if such a Program were established.

**ARTICLE XIV
NEW MEMBERS**

Other Governmental Units may be added to this Agreement upon approval of their governing body as evidenced by adoption of the resolution attached as Exhibit I to this Agreement and execution by the Governmental Unit's authorized representatives. A Governmental Unit shall not become a Party to this Agreement until a certified copy of the resolution is received by the Statewide Committee Secretary. The Statewide Committee Secretary shall maintain a master list of all Parties to this Agreement.

**ARTICLE XV
GENERAL PROVISIONS
MODIFICATION**

- A. Modification. No provision of this Agreement may be modified, altered or rescinded by individual parties to the Agreement. Modifications to this Agreement may be due to programmatic operational changes to support the Agreement. Modifications require a simple majority vote of the Parties to this Agreement. The Statewide Committee Secretary shall provide written notice to all Parties of approved modifications to this Agreement. Approved modifications take effect 60 days after the date upon which notice is sent to the Parties.
- B. Signatory Indemnification. In the event of a liability, claim, demand, action or proceeding of whatever kind or nature arising out of a Period of Assistance, the Parties who receive and provide Assistance shall indemnify and hold harmless those Parties whose involvement in the transaction or occurrence that is the subject of such claim, action, demand or other proceeding is limited to execution of this Agreement.
- C. Prohibition on Third Parties and Assignment of Rights/Duties. This Agreement is for the sole benefit of the Parties and no person or entity shall have any rights under this Agreement as a third-party beneficiary. Assignments of benefits and delegations of duties created by this Agreement are prohibited and are without effect.
- D. Notice. A Party who becomes aware of a claim or suit that in any way, directly or indirectly, contingently or otherwise, affects or might affect other Parties to this Agreement shall

provide prompt and timely notice to the Parties who may be affected by the suit or claim. Each Party reserves the right to participate in the defense of such claims or suits as necessary to protect its own interests.

- E. Effective Date. This Agreement shall be effective after approval by the Parties' governing body and execution by the Parties' authorized representatives.
- F. Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Minnesota.
- G. Captions. Article and section headings contained in this Agreement are included for convenience only and form no part of the Agreement among the Parties.
- H. Waivers. The waiver by a Party of any breach or failure to comply with any provision of this Agreement by another Party shall not be construed as, or constitute a continuing waiver of such provision or a waiver of any other breach of or failure to comply with any other provision of this Agreement.
- I. Counterparts. This Agreement may be executed in several counterparts, each of which shall be an original, all of which shall constitute but one and the same instrument.
- J. Savings Clause. If any court finds any article, section or portion of this Agreement to be contrary to law or invalid, the remainder of the Agreement will remain in full force and effect.

IN WITNESS WHEREOF, the Parties, by action of their respective governing bodies, caused this Agreement to be approved on the dates below.

City of _____, Minnesota

The City Council of _____, Minnesota duly approved this Agreement on the _____ day of _____, 20__.

By: _____
Its Mayor

And: _____
Its Clerk

EXHIBIT I

RESOLUTION AUTHORIZING GOVERNMENTAL UNIT TO BE A PARTY TO MINNESOTA WATER AGENCY RESPONSE NETWORK (MnWARN)

WHEREAS, Minnesota Statutes, Section 471.59 authorizes governmental units by agreement of their governing bodies to jointly or cooperatively exercise any power common to them;

WHEREAS, MnWARN has been established by the adoption of a Mutual Aid Agreement (the Agreement) among Governmental Units to allow their water, wastewater and storm water utilities to assist each other in case of an emergency;

WHEREAS, the Agreement allows other governmental units to become a party to the Agreement by the adoption of this Resolution and sending notice to the Secretary of the Statewide Committee for MnWARN; and

WHEREAS, the governing body of [name of governmental unit] considers it to be in the best interests of the [City][County][Town] to be a party to the Agreement.

NOW, THEREFORE, BE IT RESOLVED, that [name of governmental unit]:

1. Authorizes [position title of designated employee or official] and [position title of designated employee or official] to sign this resolution evidencing the intent of [name of governmental unit] to be a party to MnWARN; and
2. [Name of designated employee or official] is directed to send a certified copy of this resolution and a completed membership information form to the Secretary of the Statewide Committee of MnWARN; and
3. [Name of political subdivision] agrees to comply with all terms of the Agreement.

IN WITNESS WHEREOF, [name of governmental unit], by action of its governing body, caused this Resolution to be approved on [Month/Date/Year].

By: _____

Its _____

And: _____

Its _____