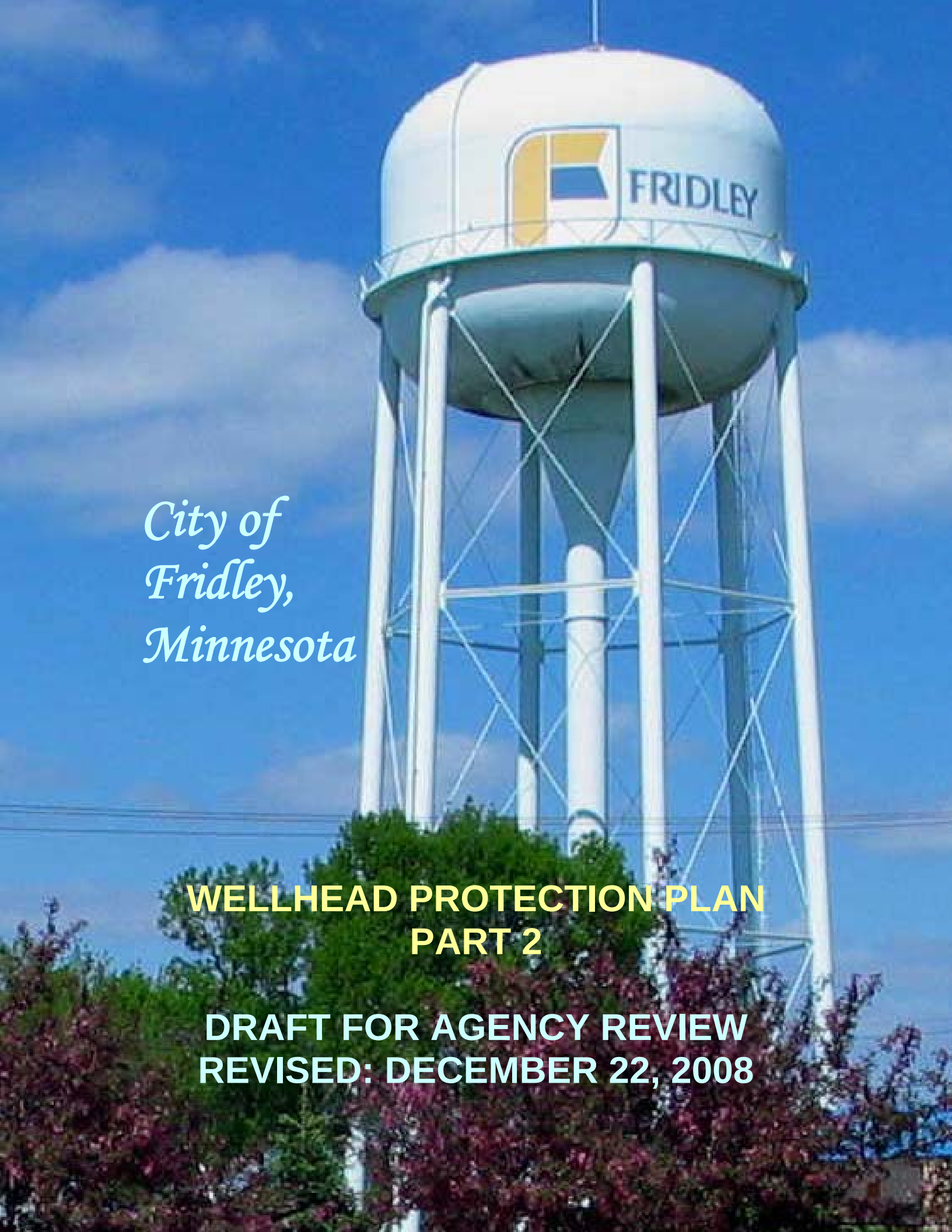

City of Fridley, Minnesota

WELLHEAD PROTECTION PLAN
PART 2

DRAFT FOR AGENCY REVIEW
REVISED: DECEMBER 22, 2008

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Chapter 1
Data Elements and Assessment

I. REQUIRED DATA ELEMENTS

PHYSICAL ENVIRONMENT

Geology

The geologic environment that surrounds Fridley's wells influence the delineation of Wellhead Protection Areas (WHPAs) and vulnerability classification. The configuration of geologic strata directly affects the infiltration of water and aquifer characteristics making it an important factor in the vulnerability of a municipal well to contamination and Drinking Water Supply Monitoring Area (DWSMA) delineation.

Part 1 of this plan describes the WHPA, DWSMA, geologic strata and assessment of City wells and aquifer vulnerability. Part 2 address the influence of land use and protection of the City's water resources. A map of bedrock units within the City's DWSMA is provided in Figure 1.

The City of Fridley derives its water from 13 wells that draw water from four distinct geologic layers or aquifers. One well utilizes the upper sand and gravel aquifer (Quaternary) which is vulnerable to contamination. Seven wells utilize the upper bedrock aquifer (Prairie du Chien – Jordan) that is also vulnerable to contamination. Five wells utilize the lower bedrock aquifers (Franconia-Ironton-Galesville and the Mount Simon) that are not vulnerable to contamination.

Well #10 draws water from the Quaternary aquifer. The well construction log indicates that the 199 feet deep well penetrates a mostly sandy geologic material. Therefore, the soils and shallow geologic features influence the vulnerability of Well #10.

Review of the geologic setting within the City's DWSMA indicate that land use, precipitation, soil characteristics, and surface water resources may influence the upper aquifer units used by City wells. The deeper wells, completed in the lower bedrock aquifer units, are protected from infiltration of pollution from surface sources. The result of a detailed geologic assessment (performed by the Minnesota Department of Health, or MDH) indicates that the susceptibility of the City's drinking water source is low to moderate.

Soils

The Hubbard-Nymore, Zimmerman-Isanti-Lino and Heyder-Kingsley-Hayden associations represent the soils found in the Fridley part of the City's DWSMA. Soils are from ground surface to six feet deep. The Hubbard-Nymore association is described as "excessively drained" sandy soils. The permeability of the Zimmerman-Isanti-Lino association is described as "excessively drained" to very poorly drained fine sandy soil. The Heyder-Kingsley-Hayden association is described as "well-drained" soil.

Zimmerman-Urban Land-Rifle and Hayden-Urban Land associations are found in the Mounds View and New Brighton part of the City's DWSMA. These soil associations are described in the Soil Survey of Washington and Ramsey Counties, MN. The Zimmerman-Urban Land-Rifle association is described as an excessively drained and very poorly drained soils formed dominantly in glacial outwash. The Hayden-Urban Land association are described as well drained moderately course textured soils formed dominantly in glacial till.

Comparison of the General Soils maps and descriptions (for Anoka and Ramsey County) at the shared county boarder presents some minor inconsistency. However, the transitions of soil properties largely agree. The inconsistency in soil names and specific properties may be attributed to: the evolution of map and soil classification methods during the period between 1977 and 1980; the difference in soil survey mission perspective; or the perspective of the two survey authors. Soils information for the areas of the Fridley DWSMA is presented in Figure 2.

Surface Water Resources

Moore and Locke are the only lakes within the City's DWSMA. Rice Creek flows in a westerly direction through the center of Fridley's DWSMA. The creek enters the eastern portion of the DWSMA at Long Lake in New Brighton. The creek reaches the western boundary at Locke Lake before discharging into the Mississippi River.

The DWSMA is located within two watersheds. The Rice Creek Watershed represents over ninety-percent of the area within the DWSMA. The Six Cities Watershed represents the remaining area. Surface water resources are managed by the Rice Creek Watershed District and the Six Cities Watershed Management Organization. The City cooperates with the watershed organizations to properly manage surface water and storm water in accordance with their watershed management plans.

Major rivers (Mississippi, Minnesota and St. Croix) were used as groundwater flow boundaries to determine the regional flow field within aquifers. The regional flow field was a critical influence in the delineation of the WHPAs. The public waters (lakes, rivers and creeks) are addressed through a system of State programs to manage water quality and quantity.

Wetlands are a minor portion of the land located in the City's DWSMA. A map presenting the surface water and wetlands features are provided in Figure 3.

Precipitation

Precipitation recharges all aquifers. Recharge of the confined aquifers, used by City wells, takes place on a regional scale encompassing large areas that extends outside the City's DWSMA. The Minnesota Department of Natural Resources has maintained a system for monitoring hydrologic data that addresses precipitation within the metropolitan region (see Figure 4). Local and regional precipitation is presented in Table 1 (Appendix).

Land Use Data Elements

Community Setting

The first name given to the Fridley area was "Manomin", meaning "*Wild River*" a characteristic of the Mississippi River. Manomin was first a part of Ramsey County until 1857 when it was separated and became its own county, the smallest in the United States. In 1870, Manomin was annexed by Anoka County and was given township status. In 1879, the name was changed to Fridley, after Abram Fridley who settled in Fridley from New York in 1851. Upon arriving in the area, Abram Fridley was an active participant in politics and government at the local, state and federal level eventually earning the honor of having the City of Fridley named after him.

Although a few attempts were made to incorporate Fridley as a village after gaining its name, it was not until 1949 that Fridley successfully incorporated as a village. Fridley became a Home Rule Charter City in 1957.

The Fridley of today is the result of early land forms created by glacial deposits that were left from massive ice movements across the North American continent. Fridley has been home to many civilizations dating back to prehistoric times. At one time, the area was inhabited by the Native American civilizations of the Dakota and Ojibwa. In 1847 American and European settlements began to take root in the area. The first land was surveyed in 1847 and shortly thereafter the first buildings were constructed consisting of an office and home for a saw milling operation, which actually was to supply lumber to East St. Louis, Missouri via the Mississippi River. This building, now used for the Banfill-Locke Center for the Arts, still stands.

Several key forces contribute to the development patterns that give shape to the City of Fridley. These forces go well back into history. Arguably the biggest force would be the Mississippi River. Virtually every other force that has historically shaped the development of Fridley can somehow be tied back to the Mississippi River in some shape or form.

Mississippi River
Historically, the Mississippi River provided a source of mobility, food, and security to native settlers. In the late 1800s, it became a source of power to run saw and grain mills but was also a key transportation route. The river provided economic prosperity to many of the original settlers. Today, the river is less of a provider of transportation and more of a recreational amenity. While the river is no longer a transportation resource for commerce, it is a recreational amenity and serves as a boundary that has influenced Fridley's development. There is only one bridge, the I-694 Bridge that crosses the River in Fridley. This crossing, together with the Highway 610 Bridge to the north of Fridley serves as the primary river crossings for the northern suburbs.

Roadways and Trails
Because many early settlements started on the river to take advantage of its uses and resources, early roadways often paralleled the river. The Red River Ox Cart Trail followed the river and eventually became the first territorial road. It was constructed in 1852 starting at Point Douglas near the confluence of the Mississippi River and the St. Croix River and ran through Fridley on its way to Fort Ripley to the north.

Railroad
The main railroad line in Fridley also parallels the Mississippi River. The St. Paul and Pacific Railroad was built in 1863. Today, the Burlington Northern and Santa Fe (BNSF) railroad operates along the same path. This railroad has greatly impacted development in the community by establishing early patterns for industry and commerce in a north south direction along the western portion of the City. In 1871, the first industrial boom began following the railroad and the river.

Post World War II and the Federal Highway Acts
Fridley began as a farming community. After World War II it began to develop residentially with other first ring suburbs in the Minneapolis-St. Paul area. Fridley's residential growth was accompanied by the construction of new highways to accommodate the increasing use of automobiles that followed World War II. Highway 65 and University Avenue were both built through Fridley in the 1950s. The territorial road that had been built along the Mississippi River became East River Road. Along with its three major north-south highways Fridley became the site of a major east-west highway, Highway 100, which eventually became Interstate 694. Fridley's industrial and commercial development grew along these highway corridors.

Fridley is located just north of Minneapolis on the east bank of the Mississippi River. Our community is home to over 27,000 residents, 900 businesses and 17 places of worship. Although the first European settlers arrived in the 1840's, the City's major growth took place in the decades following the Second World War.

The City is committed to building for its future through careful, comprehensive planning and fostering of solid economic growth. The City has an expanding base of business and industry. Most recently, the City has become a center for high technology firms. Sound financial management, favorable tax rates, AA-1 bond rating and development incentives add to its desirability as a business location.

The 9.9 square miles that make up the City are fully developed. The setting within the City is evolving through redevelopment to address the needs of the residents and businesses.

Current Land Use

The largest category of land use (based on area) within Fridley is residential.

Minimal reduction in population is expected in the next twenty years. A significant shift from single-family to multi-family residential properties is expected to continue to serve a greater variety of needs.

Table 2: Existing Land Use – 2007

Land Use Category	Acres	Percent of Area
Total Land Area	6,603	100
Single-family Residential	1,953	29.6
Multi-family Residential	307	4.7
Commercial	362	5.5
Industrial	1,194	18.1
Public/Semi-public	450	6.8
Parks	506	7.7
Roadways (right-of-way)	864	13
Water Features	712	10.8
Railroad	128	1.9
Vacant Land	100	1.5
Vacated Right of Way	27	0.4
Total Land Area	6,603	100

Source: City of Fridley 2030 Comprehensive Plan

The 2006 estimated population of Fridley is 26,603 (Metropolitan Council).

Table 3: Population, Households, and Employment Projections

		2000	2010	2020	2030
City of Fridley					
	Population	27,449	27,000	26,900	27,500
	Households	11,328	11,600	11,900	12,300
	Employment	25,957	24,500	26,000	26,600

Fridley has a sound mixture of land use providing high quality residential, recreational, economic and employment opportunities. Residential land use includes over 11,300 family living units (e.g. single family homes; apartments, condominiums, and mobile homes) within planned neighborhoods.

Businesses are typically located along major transportation arteries and within commercial and industrial developments. Major businesses include Medtronic Inc. (2,500 employees), United Defense (1,800 employees), Onan Corp. (1,700 employees), and Unity Medical Center (1,400 employees).

Land use within the Fridley and Spring Lake Park portions of the DWSMA is presented in Figure 5a. Land use within the Mounds View and New Brighton portions of the DWSMA is presented in Figure 5b.

Future Land Use Development and Redevelopment

The overall land use pattern in the short term will remain largely unchanged. In the longer term, however, there are three forces that will greatly affect the land use patterns in Fridley. These include:

- A planned commuter rail service (Northstar) with a station area in the City and increased bus service will increase mobility for residents and employees.
- The Medtronic World Headquarters development will attract new commercial and industrial development and new housing construction.
- The Fridley HRA role in promoting redevelopment in the City.

In planning for various land use components, it is important to recognize their connections. The transportation component will impact land use. Land uses impact transportation. Attention to housing redevelopment will have an impact on the ability to attract and retain industry. The quality of public services, including educational services, will also be reflected in the willingness of industry and commerce to locate in Fridley.

Residential
While Fridley is an attractive location for housing, there is little space available for new housing. Much of the housing is thirty to fifty years old. The City is focusing on rehabilitation and acquisition of blighted properties. Fridley has much more to do to complete its redevelopment objectives to meet the housing needs of different age groups and socioeconomic circumstances.

The Fridley HRA is likely to focus its housing redevelopment efforts on townhome development and other higher density housing near rail or bus station stops.

Commercial
Many of the existing commercial shopping centers in the City are 30 to 40 years old taking advantage of highway frontage and designed for automobiles. They do not support neighborhood pedestrian access. Many of these centers are in need of significant improvements.

Reorientation of the commercial strip centers in this manner may serve to improve their economic viability as well as create stronger neighborhoods through easier access to retail products and services. In some cases, redevelopment may consider converting strip centers to higher density residential or a mixed-use project.

Residents have expressed the desire for more retail opportunities, specialty stores and entertainment uses. The influence from the Medtronic Headquarters may result in new opportunities for retail growth.

Industrial
Future industrial development will consist of infill development within existing industrial parks and business parks. However, the area to the north and south of the United Defense facility poses a unique industrial redevelopment opportunity or a mixed-use development. The area has excellent accessibility to I-694 and is located just south of a variety of existing industries.

In addition, redevelopment of the automobile recycling facilities in the northeast part of the City can create additional opportunities for mid-size industries. The City encourages redevelopment of older, outdated industrial facilities into more efficient, environmentally friendly and aesthetically pleasing uses. Efforts are being made to maintain Fridley's strong industrial base and to assist industrial expansion and new development where economic development tools permit.

Redevelopment
Through redevelopment the City has the opportunity to shape the future and accomplish the emerging needs of the community. Because the City has limited resources, it must focus its efforts on projects that best meet the City's needs.

The City has identified three potential redevelopment areas (see Figure 6). The location of redevelopment areas are general, not having specific boundaries. The intent is to focus City resources and redevelopment efforts to target areas.

Redevelopment Area 1:
This area represents a gateway into the community from the north and provides a first impression to people arriving into Fridley from that direction. The street alignment in this area is inefficient creating double frontage lots not large enough for typical industrial development. The salvage yards rely on outdoor storage which is not an efficient land use. The land area could be better utilized for more building intensive developments. Because of the shortage of vacant industrial land in the City, redevelopment of this area would provide 8 to 12 acres of viable industrial land that could be occupied by a variety of office warehouse uses, high technology uses or other vendor uses. The mobile home park provides a source for affordable housing and should be maintained and enhanced where possible.

Redevelopment Area 2:
This area includes the intersection of Mississippi Street and Old Central Avenue and extends south along Old Central Avenue to Rice Creek Road. It also includes the commercial areas that are located at the intersection of East Moore Lake Drive and TH 65 and on the west side of TH 65.

The City should develop a well-integrated plan for this area that capitalizes on its location between the two Medtronic campuses as well as on the presence of the Northwest Athletic Club. As the plan is developed, consideration should be made to replacing the current mix of single- family residential and commercial land uses with higher density residential development that together with the health club may serve as an attractive residential location for move-up housing. An opportunity may also arise to redevelop underutilized commercial areas for an extended stay/business suite hotel or other uses in the general vicinity of TH 65 and East and West Moore Lake Drive.

Redevelopment Area 3: Redevelopment Area 3 includes the area surrounding the intersection of I-694 and TH 65 and extends west to the river to include the potential commuter rail station site and then south encompassing the University Avenue Corridor. This area presents a major gateway to the community and is currently changing due to the development of Medtronic's corporate campus. Also, there is a potential reuse of the land owned by the U.S. Navy along East River Road. Redevelopment Area 3 will be key in addressing a number of the issues important to the community's vision.

Land Use within the DWSMA

Land use within the DWSMA is determined using the Anoka County and Ramsey County Geographic Information Systems and the Property Tax Records databases. The parcel Property Identification Numbers (PIN) and land use status (agricultural, residential, commercial, industrial, and tax exempt) are cataloged within each County portion of the

DWSMA. Tax-exempt parcels can include government owned land, parks, public works facilities, public and private schools, and religious institutions.

Table 4: Land Use within Fridley's DWSMA[1]

Land Use	Fridley[2]	Ramsey Co.[3]	Total
Total Properties	3,971	2,005	5,976
Residential 3	528 1	935 5	463
Commercial	140	21	161
Industrial	84	2	86
Exempt Properties	215	47	262
Unknown (not classified)	4	0	4

[1] Determined through interpretation of Anoka and Ramsey County Geographic Information System data
[2] Includes the Spring Lake Park portion of the DWSMA
[3] Includes the Mounds View and New Brighton portions of the DWSMA

Redevelopment within the DWSMA

The City of Fridley is a fully developed community. The existing wells and their DWSMA are located in built up areas of the community and will see change in land use as a result of redevelopment.

Redevelopment Areas (Sites) 1 and 2 are located within the City's DWSMA. The City has identified these areas as potential redevelopment zones.

Area 1 consists of existing automotive salvage yard facilities that require large outdoor storage areas. Redevelopment of Area 1 would likely result in removing potential environmental concerns associated with auto salvage and establishing commercial and industrial land use that is constructed in compliance with City environmental standards that have evolved after the existing activities were established.

Area 2 consists of aging commercial buildings and single family homes. Redevelopment would likely utilize the natural features and major intersections to create a unique mixed-use environment that emphasizes residential and supporting commercial development.

Redevelopment within the two sites provides the City with opportunity to remove potential contaminant sources and determine construction requirement and operating controls that improve protection of the City's DWSMA.

Public Utilities and Transportation

Public utilities including storm and sanitary sewers and gas/oil transmission pipelines are constructed, maintained and monitored under federal and state guidelines to prevent and respond to contaminant releases. A map of gas/oil transmission pipelines within the DWSMA is provided in Figure 7.

Public drainage systems are maintained and monitored by two watershed management districts/organizations and the City. State agencies provide additional oversight under State surface water and storm water programs.

The storm water sewer system serves the entire City. The system delivers the storm water to the Mississippi River or Rice Creek. A map of the public drainage and storm water sewer systems is provided in Figure 8.

The sanitary sewer system serves the entire City. The system is connected to a regional intercept pipeline that transmits the sewage to the Metropolitan Council's waste water treatment plant in St. Paul. A map of the sanitary sewer system is provided in Figure 9.

The City operates a public water supply that currently serves 98% of the City's population. The City's 13 wells provide water to the system supplemented with excess treated water from the Twin City Army Ammunition Plant (TCAAP) water treatment facility. The Minnesota Department of Natural Resources regulates the volume of groundwater withdrawn by City wells. Currently the City is permitted to withdraw 2.4 billion gallons of groundwater each year. In 2006, the total volume of water pumped from the City's wells was 1.155 billion gallons. 1.163 billion gallons was pumped from the City's wells in 2007. A map of the public water supply system is provided in Figure 10.

The major transportation routes include: I-694 that bisects the southern portion of the City; Central Avenue (TH 65), University Avenue (TH 47) and East River Road (CR 1) provides north-south routes through the community. Other minor east-west routes include Mississippi Street (CSAH 6) and Osborne Road (CSAH 8). A number of these routes either abut or intersect the City's DWSMA.

Two railroad lines are located in Fridley. The Burlington Northern (BN) dual line runs along the western edge of the City from the Northern Pacific Marshalling Yard located in the southwest corner. The BN line is used for local and multi-state transportation of freight. The Minnesota Transfer Railway Company (MT) single line enters Fridley (and the DWSMA) at its eastern border terminating near University and 71st Avenue. The MT line is used exclusively to transport freight to commercial and industrial facilities into and out of the City. A map of major transportation routes and railroad lines are provided in Figure 11.

Commons Park Well Field

Eight of the City's thirteen wells (No. 2, 3, 4, 5, 6, 7, 8, and 9) are located in the 25 acre Commons Park. In 1984 a volatile organic compound, Trichloroethylene (TCE) was detected in well No. 9. Additional testing determined the presence of TCE in Wells 6 through 9 that are constructed at a similar depth drawing water from the same aquifer.

In 1992, Commons Park was placed on Minnesota's Permanent List of Priorities (state Superfund List). In 1999, the park was added to the EPA's National Priorities List, or federal Superfund List. As a result, the Minnesota Pollution Control Agency and the U.S. Environmental Protection Agency have performed extensive investigation into the cause and impact of this municipal well contamination.

The source of the TCE contamination has not been identified. However, a number of TCE contamination sites have been identified within two miles of the park. The impacted wells (No. 6, 7, and 8) have continued to be utilized during the peak summer water demand using monitoring and management techniques to maintain the presence of TCE in the water supply below the maximum permitted concentration established for safe drinking water. Well No. 9 was shut off in 1989 because it had exceeded the Maximum Contaminant Level (MCL) established for TCE.

Water testing since 2002 indicates the level of TCE has remained below the MCL or is not detected except in well No. 9. Concentrations in well No. 9 have been below the MCL since January 2004.

Because the TCE contamination is below its MCL the current concentrations are considered protective of human health and the environment. However, uncertainty of the source of the contamination represents the potential for future impacts to the City's water supply.

Well water monitoring must continue to ensure contaminant concentrations remain at acceptable levels. The City is cooperating with the Minnesota Department of Health in implementing an additional monitoring plan to insure the safety of the water supply from the identified TCE contamination. The special monitoring program will continue until the MDH determines it is no longer required.

Wells and Well Probability

Early development in Fridley precedes the establishment of a municipal water supply system. In the early 1950s, Fridley initiated its municipal water supply system. In 1960 Mounds View initiated its water supply system. Existing homes and other buildings discontinued use of private wells to connect to the municipal system. In some cases homes and businesses originally connected to the City's water supply have installed private wells for irrigation or other purposes.

Wells represent a potential threat to groundwater resources if not properly sealed when abandoned. Contamination that is spilled or leaked on the ground must migrate through many layers of soils and geologic formations before entering deep aquifers typically used by drinking water wells. This separation between land surface and deep aquifer units acts as a natural barrier requiring years, decades, even centuries for contaminants to affect the quality of deep wells. However, pollutants entering an abandoned well through a damaged cap or corroded casing are rapidly introduced to the aquifer and have the potential for contamination of the water supply of nearby wells.

The City performed a Well Potential Survey of properties in its DWSMA. The Survey determined each property's potential of to have a well by comparing the year of building construction with the year that City water was available. Buildings constructed before City water was available are "probable" to have a well on the property. Buildings that were constructed in the same year, or later, are "not probable" to have a well.

Of the 3,957 parcels located within the Anoka County portion of the DWSMA, 548 have been identified as probable to contain a well. Another 198 properties require further investigation before a determination of well probability can be made. More information

regarding the status and management of these probable wells is necessary to properly address the threat to the City's wells.

Of the 766 properties within the Mounds View portion of the DWSMA, 285 have been identified as probable to contain a well.

The New Brighton portion of the DWSMA includes 1,129 properties. The City of New Brighton did not provide water system service information to the properties.

Appendix 1 provides information for properties determined as probable to have a well within the City's DWSMA.

Potential Contaminant Source Inventory

The vulnerability of Fridley's DWSMA is defined in three classifications: low, moderate, and high. The majority of the DWSMA area is classified as moderate with a very small portion of the western-most corner having a high vulnerability classification. The assessment of aquifer and well vulnerability, presented in Part 1, indicates land use surrounding the city wells may contribute contaminants that would present a health concern to the users of the public water supply.

To assess the risk from the variety of land uses within the DWSMA, the City has developed an inventory of potential contaminant sources. The information is collected from multiple State and County agencies. The Potential Contaminant Source Inventory (PCSI) includes:

- registered petroleum and hazardous substance storage tanks;
- leaking underground storage tanks;
- removed storage tanks;
- licensed hazardous waste generators;
- licensed agricultural chemical storage sites; and
- soils and groundwater clean up sites.

Review of the PCSI indicates a correlation between known contaminant sources and commercial and industrial activities. Some properties contain multiple contaminant sources (e.g. licensed hazardous waste generators, registered storage tanks and leaking underground storage tank site).

The PCSI inventory identifies potential sources of contamination that are discrete and within a single property. Other potential contaminant sources that cross through multiple properties (e.g. highway, rail lines, and petroleum transmission pipelines) are associated with a public utility that is addressed in an earlier section. Appendix 2 provides the results of the City's PCSI.

Table 5: Summary Results of Potential Contaminant Source Inventory	
Hazardous Waste Generators (very small, small and large quantity generators)	76

Ag. Chemical Storage Sites	14
Leaking Underground Storage Tank Sites	13
Registered Storage Tank Sites	33
Voluntary Investigation and Cleanup Sites	6
Licensed Solid Waste Establishments	1
Inventoried Dump Sites	2
Superfund Sites	1
Total Parcels	**146**

Contaminant sources are introduced and removed from the City's DWSMA as tenant, ownership and land use changes. The PCSI has identified numerous properties having potential contaminant sources. The majority of these properties are zoned for commercial, industrial, and institutional land use often containing multiple potential sources of contamination.

Water Quantity Data Elements

Surface Water Quantity

The principle surface waters within the City's DWSMA are Moore Lake, Locke Lake, and Rice Creek. Also found within the DWSMA are numerous ponds that are typically associated with City Parks including Harris Lake Park (Fridley), Silver View Park (Mounds View), Random Park (Mounds View), and Brightwood Hills Golf Course (New Brighton). The surface water bodies are assumed not to directly affect the DWSMA because the City wells draw from aquifers that exhibit confined hydrologic conditions. Conversely, withdrawal of groundwater from these confined aquifers has not affected surface water. Well 10 (a shallow quaternary well) may have a greater hydraulic connection with the surface water bodies within the well's capture area.

According to the Minnesota Department of Natural Resources, no water use conflicts exist in Fridley's DWSMA.

Groundwater Quantity

The City utilizes the Prairie du Chien, Jordan, Franconia, Ironton-Galesville, and Mt. Simon-Hinckley (bedrock) aquifers and the Quaternary Buried Alluvial (sand and gravel) aquifer to supply water to its public water supply system.

The Minnesota Geological Survey's (MGS) County Well Index (CWI) and the Minnesota Department of Natural Resources' (MDNR) State Water Use Database System (SWUDS) were utilized to identify high-capacity wells in the area that could affect the delineation of the City's WHPAs. MDNR data of groundwater elevations provide information on trends in groundwater quantity in the area.

Pumping records and static water levels of the City wells continue to be collected to determine the trends in groundwater quantity and availability. According to the Minnesota Department of Natural Resources, no ground water use conflicts exist in Fridley's WHPAs.

Water Quality Data Elements

Surface Water Quality

Moore Lake is classified by the Minnesota Department of Natural Resources as a eutrophic lake having waters rich in mineral and organic nutrients that promote a proliferation of plant life, especially algae, which reduces the dissolved oxygen content and often causes the extinction of other organisms. In spite of its eutrophic status, the lake is used for recreation including swimming.

Locke Lake is not monitored by the Minnesota Department of Natural Resources.

Groundwater Quality

Groundwater samples from the City's water supply wells are routinely collected and analyzed for a wide variety of elements, minerals, compounds, and radioactive substances. Annual municipal water quality reports of the City's water are provided to users.

Water quality testing of the upper bedrock formation (Prairie du Chien-Jordan or PdCJ) in the City's Commons Park well field wells has determined that the aquifer is polluted in this area. In 1984 Trichloroethylene (TCE) was detected in well No. 9 located in Commons Park. In February 1989 the well was taken out of service because it consistently showed TCE contamination above the maximum limited determined to be safe to drink.

Since October 1992 the City's water supply has been partially supplemented by an interconnection to the New Brighton water system. This interconnection provides excess water from a groundwater treatment system installed to remediate groundwater affected by release of TCE from the Twin Cities Army Ammunition Plant.

The City has taken a number of steps to protect users including increased water quality monitoring and blending the water to maintain the TCE concentration below the maximum contaminant level. A copy of the MDH Source Water Assessment report and the Fridley 2006 Annual Water Quality Report are provided in Appendices 3 and 4, respectively.

II. ASSESSMENT OF DATA ELEMENTS

Use of Wells

The City's wells provide ample water volume for current demand using peak demand controls during high water demand for lawn watering. Monitoring and maintenance will continue to be a priority for the upkeep of the wells.

Quantity and Quality of Water

There is a sufficient quantity of groundwater available to supply the City's system in the foreseeable future. However, long-term groundwater availability can not be taken for granted and must be evaluated periodically to determine if City or regional issues develop.

Through management and treatment, the quality of water from City wells meets the criteria of the MDH for drinking water. The City, in cooperation with the MDH, continues to monitor its well water quality to identify any developing issues.

Land Use in DWSMA

The majority of the land within the City's DWSMA is single- and multi-dwelling residential use. The commercial and industrial land use represents the majority of potential contaminant sources within the DWSMA including petroleum storage tanks, hazardous waste generators, and contamination cleanup sites. The potential contaminant sources at parcels classified as exempt (State, County, and City operated facilities) are generally limited to sources consistent with the design of the facility.

Groundwater Use in DWSMA

City wells represent the dominant use of groundwater in the DWSMA. Other users include commercial and industrial wells that do not have significant impact on the availability of groundwater for the City wells.

Commercial, industrial, and other public water suppliers using high capacity wells that draw significant volumes of groundwater were considered during delineation of WHPAs. Changes in groundwater use by other wells may impact the configuration of the City's WHPAs. Monitoring of static and pumping water levels will be utilized to determine trends in groundwater availability.

Chapter 2
Impact of Changes on City Wells

I. CHANGES IDENTIFIED

Physical Environment and Land Use

Fridley is a fully developed city with targeted areas for redevelopment to improve the quality of life for its residents and reduce environmental impact on the City's resources. The plan for the targeted redevelopment areas is to continue land use in the same classification with improved infrastructure for better management.

Fridley's DWSMA covers an area that is essentially developed. The undeveloped parcels, larger than 20 acres, are not expected to change because they are protected wetlands or are dedicated greenspace such as parks.

Surface Water and Groundwater

Significant changes are not expected to surface water or groundwater within the DWSMA.

II. IMPACT OF CHANGES

Expected Changes in Water Use

The demand on the City's water system is expected to increase slightly due to development of the last remaining undeveloped parcels and redevelopment of property to support increased density.

Influence of Existing Water and Land Programs and Regulation

The City's zoning and development controls guide development within the community principally to establish compatible land use development and redevelopment. Some development controls (i.e. septic system ordinance) address potential contaminant sources present on a property regardless of its zoning classification.

Many State agencies exercise numerous environmental management statutes, rules, and programs that influence construction, location, and maintenance of facilities and land use activities, within the City, that represent potential contaminant sources (i.e. underground petroleum tank program).

Administrative, Technical, and Financial Considerations

No significant changes are planned within the City's DWSMA. Administrative, technical, and financial considerations are not expected to affect changes to the DWSMA.

Chapter 3
Issues, Problems, and Opportunities

I. LAND USE ISSUES RELATED TO THE AQUIFER, WELL WATER AND DRINKING WATER SUPPLY MANAGEMENT AREA

Management of Potential Contaminant Sources

Existing management of potential contaminant sources presents an issue and opportunity for the City's wellhead protection plan.

Many of the potential contaminant sources or groundwater management issues that exist within the DWSMA are monitored and regulated through a labyrinth of state agencies and programs. These programs (detailed in the Anoka County Groundwater Protection Assessment) focus on a single land use or activity by a designated state agency such as:

- Hazardous waste generators – Minnesota Pollution Control Agency (MPCA) and County Environmental Services;
- Commercial agricultural chemicals and practices – Minnesota Department of Agriculture (MDA);
- Petroleum and hazardous substance storage tanks – MPCA;
- Well contractor licensing, construction code and maintenance – MDH;
- Water appropriations by large capacity wells – MDNR;
- Soils and groundwater contamination – MPCA; and
- Soils and groundwater contamination related to agricultural chemicals – MDA.

The City exercises land use controls though it’s zoning and development ordinances but has relied on preemptive State programs for the environmental management of land use activities.

The Anoka County Groundwater Protection Assessment has cataloged the various potential contaminant sources, management programs, and opportunities to enhance groundwater protection. The Assessment is used to assist the City in developing this Wellhead Protection Plan.

Commons Park Wellfield Contamination

The intermittent, low contaminant concentrations in four of the eight municipal well in Commons Park represents an issue. The uncertainty of four of the City’s thirteen wells to continue to provide acceptable drinking water quality could require the addition of water treatment, replacement well construction, or increased reliance upon the supply from interconnection with adjacent municipalities and the water treatment system at the Twin Cities Army Ammunition Plant (TCAAP).

Other Wells

Unused, old, abandoned, and improperly maintained wells pose a significant threat to City wells. Such wells can act as a conduit for introduction of contaminants directly into an aquifer. Since 1974, the Minnesota Department of Health, through its Well Management Program, has permitted the construction of wells and licensed contractors. State law and rules apply to all wells, including those constructed before 1974. Through the Well Code (MN Rule 4725) the MDH regulates the construction of wells and sealing unused wells. The City is prohibited from managing well construction.

The problem with managing wells within the DWSMA is that the existence, location and status of a majority of the wells are unknown. The City has an opportunity to enhance wellhead protection by cooperating with the MDH Well Management Program in locating and sealing abandoned wells and documenting the construction of new wells within its building permits program.

II. ISSUES DISCLOSED AT PUBLIC MEETINGS AND SUBMITTED COMMENTS

The Metropolitan Council submitted the following comments on regarding development of the City's wellhead protection plan:

- Upon submittal of WHPA delineations, the Met Council will determine the adequacy for review as a local comprehensive plan amendment, and notify each city on how it will proceed.
- The Met Council will be looking for special protective measures for the numerous Drift wells, particularly in the vicinity of known groundwater contamination areas.

Chapter 4
Wellhead Protection Goals

Ultimate Goal

The ultimate goal of this wellhead protection plan is the adequate quantity and sustained quality of water for the City's water supply system. To achieve this, the City has identified goals to address specific issues and opportunities outlined in previous chapters.

I. PUBLIC EDUCATION

A. Wellhead Protection Awareness Project

The goal of the Wellhead Protection Awareness Project is to notify the property owners and residents of the location and coverage of the City's DWSMA. Property owners will understand the significance of their role in supporting City's wellhead protection program.

B. Hazardous Materials Management Education

Educate residents and businesses regarding proper handling, use, storage, and disposal of hazardous materials within the DWSMA through augmentation of existing environmental education programs.

II. OTHER WELLS MANAGEMENT

A. Seal Abandoned Wells

Cooperate with the MDH Well Management Program to seal all abandoned wells within the City's DWSMA.

B. Monitor Well Construction

Cooperate with the MDH Well Management Program to monitor and maintain accurate records of the construction and maintenance of wells within the City.

III. CONTAMINANT SOURCES

A. Potential Contaminant Source Inventory (PCSI)

Regularly update and maintain the PCSI to monitor new and removed contaminant sources from the City's DWSMA.

B. Potential Contaminant Source Management Evaluation

Determine the extent that potential contaminant sources are located inside the City's DWSMA. Evaluate the impact of existing management programs to adequately protect the City's vulnerable wells.

IV. CITY PROGRAMS INTEGRATION

A. Zoning, Development, and Redevelopment Controls

Determine the compatibility of utilizing City land use and development programs to enhance wellhead protection.

B. Incorporate Wellhead Protection Initiates into City Plans

The City will use this Wellhead Protection Plan as a resource when updating its Comprehensive Plan, local water management plan, water supply plan, and other relevant plans.

V. WATER QUALITY AND QUANTITY MANAGEMENT

A. Groundwater Quality Protection

Monitor the chemistry of the aquifer units providing water to City wells and investigate significant changes in water quality.

B. Minimize Demand on Water Supply System and Groundwater

Maintain water demand reduction activities to efficiently use the groundwater resources available to the City.

Chapter 5
Plan of Action

I. PUBLIC EDUCATION PROGRAM

An education program is critical to protect the City's water supply and gain the cooperation of property owners and businesses within the DWSMA. A packet will be developed to present the various education materials to the property owners and others within the DWSMA. Additional packets will be provided to new property owners and facility operators.

A. Wellhead Protection Awareness Project

Objective: The cooperation of property owners, facility operators and others is critical for the City to achieve our wellhead protection goals. The Wellhead Protection Awareness Program is intended to gain the cooperation of residents and business operators in the City's wellhead protection efforts.

Actions:

(1) The Wellhead Protection Plan Manager will notify property owners that they are located within the City's DWSMA. The notification will include a wellhead protection education packet providing information on the City's wellhead protection program.
(2) The Wellhead Protection Plan Manager will develop a PowerPoint presentation on the wellhead protection program to present to the City Council at a public meeting. The information will be provided to staff of neighboring communities within the DWSMA for their respective governing bodies.
(3) The Wellhead Protection Plan Manager will include wellhead protection information in their annual water quality report of their water supply system.
(4) The Wellhead Protection Plan Manager will prepare an article for publication in the DWSMA City's newsletter at regular intervals that provides background on the City's wellhead protection program.
(5) The Wellhead Protection Plan Manager will make DWSMA maps available to consultants, septic system evaluators, and other interested persons that perform environmental evaluations.

Cooperator(s): Anoka County Municipal Wellhead Planning Group

Time Frame: 2 1/2 years from the completion of the plan.

Estimated Cost: ($ 1.50 per parcel within DWSMA)

Goals Achieved:

(1) Preparation and delivery of a wellhead protection information packet.
(2) Completion of an informational PowerPoint presentation and distribution within the DWSMA.
(3) Publish an article in the City of Fridley's newsletter and distribute to other Cities for their publications within the DWSMA.

B. Hazardous Materials Management Education

Objective: Educate residents and businesses regarding proper handling, use, storage, and disposal of hazardous materials within the DWSMA through augmentation of existing environmental education programs. This initiative will not address businesses that are currently licensed hazardous waste generators which are required to meet State management standards.

Actions:

(1) The Wellhead Protection Plan Manager will include proper management of hazardous materials and waste information to the education packet. The packet will include contact numbers to obtain consultative services from City, County and State program staff (i.e. utilities, hazardous waste management, and petroleum tanks programs).
(2) The Wellhead Protection Plan Manager, and its cooperators, will utilize newsletters, cable access, news releases and other forums to promote the proper management of hazardous materials including use of the Anoka County Household Hazardous Waste drop-off facility.

Cooperator(s): Anoka County Municipal Wellhead Planning Group and Anoka County Integrated Waste Management Unit

Time Frame: 2 1/2 years from the completion of the plan.

Estimated Cost: ($0.50 per parcel within DWSMA)

Goals Achieved:

(1) Preparation and delivery of a wellhead protection information packet.
(2) 5% increase in the number of households from the DWSMA that utilize the Anoka County Household Hazardous Waste drop-off facility.

II. OTHER WELLS MANAGEMENT

The presence of other wells within the City's DWSMA presents the potential for contamination sources, at or near land surface, to be rapidly introduced into the aquifer used by the City's wells. Eventually, all wells become unused or unusable. State law requires unused wells to be properly sealed. However, the location and status of wells has not been adequately monitored.

A. Seal Abandoned Wells

Objective: Cooperate with the MDH Well Management Program to seal all abandoned wells within the DWSMA. The City has developed a list of properties, within its DWSMA, that have the probability of having a well based on the date of the construction of the building and the date when City water main was available to the property.

Actions:

(1) The Wellhead Protection Plan Manager will facilitate to provide information on available funding programs to seal abandon wells.

(2) The Wellhead Protection Plan Manager will notify property owners with the probability of a well located on their property. The notification will include contact numbers for property owners to obtain consultative services regarding methods to locate and seal abandoned wells and an announcement of an informational meeting held under item (3), below.
(3) The Wellhead Protection Plan Manager will sponsor a public meeting in which MDH Well Management staff will provide an informational program and answer questions.
(4) The Wellhead Protection Plan Manager will request that the MDH Well Management Unit regularly provide copies of well sealing reports. The location of parcels that have had wells sealed will be verified and placed in the building official's parcel files.
(5) The City Building Official will incorporate the list of probable wells into the building records. When application is made to demolish a building the records will be reviewed to determine if a well search is required.

Cooperator(s): Anoka County Municipal Wellhead Planning Group, Minnesota Department of Health

Time Frame: 5 years from the approval of the plan.

Estimated Cost: ($0.20 per parcel within DWSMA)

Goals Achieved:
(1) Completion of the investigation and actions initiated.
(2) Completion of notification to property owners.
(3) Completion of public meeting.
(4) Incorporation of probable wells site into City parcel files.

B. Monitor Well Construction

Objective: Cooperate with the MDH Well Management Program to monitor and maintain accurate records of the construction of wells within the City. This project will improve the location accuracy of constructed wells by having a local official verify the location information submitted by the licensed well contractor.

Actions:
(1) The Wellhead Protection Plan Manager will request that the MDH Well Management Unit provide the "local copy" of a submitted well construction report to the City. The City will verify the parcel location of the well and place the copy into the building official's file for the parcel. If information regarding the location of the well is insufficient to determine the parcel location - the Wellhead Protection Plan Manager will request that MDH follow up with the licensed well contractor to obtain sufficient information.
(2) The City Building Official will place the copy of the well record in the parcel file. The file is subject to review when application is made for building permits or lot development. The building official will determine the status of the well.
(3) The City Utilities Department will require owners of buildings that switch from a private well to City water submit a copy of the well sealing report within 6 months. If the well remains in use the property owner must submit a statement of the

intended use of the well. The well sealing report or statement of intended use will be forwarded to the building official to be place in the parcel file.

Cooperator(s): Anoka County Municipal Wellhead Planning Group and the Minnesota Department of Health.

Time Frame: 5 years from the approval of the plan.

Estimated Cost: ($0.20 per parcel within DWSMA)

Goals Achieved:
(1) The goal is sustained monitoring of constructed wells through a cooperative effort of the City and MDH. This is an ongoing project without a date for completion.

III. CONTAMINANT SOURCES

A. Potential Contaminant Source Inventory (PCSI)

Objective: Track the extent of potential contaminant sources located inside the City's DWSMA. The PCSI will be maintained to monitor contaminant sources.

Actions:
(1) The Wellhead Protection Plan Manager will maintain its PCSI database making updates to the inventory as new information is collected.
(2) The Wellhead Protection Plan Manager will regularly request that Anoka County Community Health and Environmental Services Department provide updates of potential contaminant source information from its Environmental Site Index. The City will incorporate new and changed information into its PCSI database.

Cooperator(s): Anoka County Community Health and Environmental Services

Time Frame: 1 year from the completion of the plan.

Estimated Cost: ($0.07/yr. per parcel within DWSMA)

Goals Achieved:
(1) Current PCSI database.
(2) Demonstrated cooperation between the City and Anoka County.

B. Potential Contaminant Source Management Evaluation

Objective: Determine the extent that potential contaminant sources are located inside the City's DWSMA. Evaluate the impact of existing management programs to adequately protect the City's vulnerable wells.

Actions:
(1) The Wellhead Protection Plan Manager will review the PCSI with State, County, and City regulatory agencies to determine the current status of the contaminant sources.
(2) The Wellhead Protection Plan Manager will evaluate the contaminant sources determining whether existing regulatory programs adequately address them.

Cooperator(s): Anoka County Municipal Wellhead Planning Group

Time Frame: 1 year from the completion of the plan.

Estimated Cost: ($0.07/yr. per parcel within DWSMA)

Goals Achieved:
(1) Current PCSI database.
(2) Demonstrated cooperation between the City, State of MN, and Anoka County agencies.

IV. CITY PROGRAMS INTEGRATION

A. Zoning, Development, and Redevelopment Controls

Objective: Determine the compatibility of utilizing City land use and development programs to enhance wellhead protection.

Actions:
(1) The Wellhead Protection Manager will make presentations before the City Council, Zoning Board and other relative committees about methods to enhance the City's wellhead protection plan, and provide information for similar presentations to neighboring Cities within the DWSMA.
(2) The Wellhead Protection Manager will consult with planning and zoning officials to determine the feasibility of modifying official controls to support the protection of the City's water supply wells. Draft modifications will be presented in the form and manner required for consideration.

Cooperator(s): City Council and staff

Time Frame: 2 years from the completion of the plan.

Estimated Cost: ($0.12 per parcel within DWSMA)

Goals Achieved:
(1) WHP Manager's presentation to City Council and other committees.
(2) City consideration of modification of official controls to support wellhead protection.

B. Incorporate Wellhead Protection Initiates into City Plans

Objective: The City will use this Wellhead Protection Plan as a resource when updating its Comprehensive Plan, local water management plan, water supply plan, and other relevant plans.

Actions:
(1) When the City's Comprehensive Plan is next updated, a section will be added to address wellhead protection initiatives that are in this wellhead protection plan.
(2) The City will include compatible wellhead protection initiatives into its local water management and water supply plans.

(3) The City will cooperate with neighboring cities to address land use management issues for the portions of the DWSMA that are outside the City.
(4) The City will coordinate efforts with the City's SWPPP plan within the Fridley portion of the DWSMA and provide neighboring jurisdictions with information for incorporation into their plans.
(5) The City will coordinate efforts with the City's Emergency and Conservation plan within the Fridley portion of the DWSMA, and provide neighboring jurisdictions with information for incorporation into their plans.

Cooperator(s): Water management and other local governmental planning units.

Time Frame: Coincident with the plan preparation schedule for the specified City plans.

Estimated Cost: ($0.05 per parcel within DWSMA)

Goals Achieved:
(1) Updated comprehensive plan completed that includes wellhead protection initiatives.
(2) Local Water Management Plan that includes wellhead protection initiatives.
(3) Water Supply Plan that includes wellhead protection initiatives.
(4) Coordination with local plans.

V. WATER QUALITY AND QUANTITY MANAGEMENT

A. Groundwater Quality Protection

Objective: Monitor the chemistry of the aquifer units providing water to its wells and investigate significant changes in water quality.

Actions:
(1) The Wellhead Protection Plan Manager will continue to monitor the water quality of its public water supply wells in accordance with MDH rules.
(2) The Wellhead Protection Plan Manager will continue to monitor static groundwater level and drawdown information to enable review of long-term trends.
(3) The results of the monitoring will continue to be summarized in the City's annual Water Quality Report.
(4) The Wellhead Protection Plan Manager will create and maintain a historical database of water quality testing results for its wells. The parameters that will be monitored include concentrations of organic and inorganic compounds, radiological results, and microorganisms detected. The database will be reviewed periodically to determine trends in water quality changes.
(5) If review of the database indicates a significant change in the concentration of a potential contaminant, the will attempt to identify the source(s) of the pollutant using its PCSI database.

Cooperator(s): Minnesota Department of Health

Time Frame: 1 year from the completion of the plan.

Estimated Cost: ($0.05 per parcel within DWSMA)

Goals Achieved:
(1) Existing water quality monitoring programs continue to be implemented.
(2) Well production data collection enables review of history and development of trends in source water quantity.
(3) Water Quality Reports are disseminated annually.
(4) Creation of a historical water quality database for City wells that is updated with routine water quality test results.

B. Minimize Demand on Water Supply System and Groundwater

Objective: Efficient use of groundwater resources available to the City.

Actions:
(1) Consider use of an odd-even sprinkling ban to conserve water during high-demand summer months.
(2) Discourage mid-day sprinkling to reduce water loss from evaporation.
(3) Educate residents and businesses on good water use practices and water conservation.
(4) Require water-conserving fixtures in construction ordinances according to state policies and codes.

Cooperator(s): None

Time Frame: 1 year from the completion of the plan.

Estimated Cost: ($0.05 per parcel within DWSMA)

Goals Achieved:
(1) City consideration of water conservation measures to be implemented.
(2) Measures for voluntary conservation are provided to customers.
(3) Conservation in new construction implemented.

Chapter 6
Evaluation Program

The evaluation program will determine the progress of the City to implement its plan of action. Evaluations must be conducted at least every 2.5 years or when the wellhead plan is amended. To evaluate progress in achieving plan goals the City will perform the following.

I. WELLHEAD PROTECTION PROGRESS REPORT

Every two years the City will publish a Wellhead Protection Progress Report that will:

1. Discuss recent developments that have affected the wellhead protection plan;
2. Briefly discuss the outcomes of the Wellhead Protection Awareness Project and Hazardous Materials Management Education Project;
3. List the number of wells sealed in the City since adoption of the plan;
4. Summarize the historical and most recent water quality monitoring results;
5. Summarize the historical and most recent water use data and briefly discuss progress in reducing water demand; and
6. Present a timetable to achieve the remaining objectives of the wellhead protection plan.

II. INCORPORATION OF WELLHEAD PROTECTION PLAN IN COMPREHENSIVE PLAN

The Wellhead Protection Plan will be incorporated into the City's Comprehensive Plan during the next plan update.

III. COMMUNICATIONS

The City will maintain records of contacts for the distribution the wellhead plan and Wellhead Protection Awareness Project.

Chapter 7
Alternative Water Supply; Contingency Strategy

The City of Fridley intends to use an approved DNR Water Emergency and Conservation Plan as Chapter 7 of this Wellhead Protection Plan. This plan has been submitted for approval; however, it has not yet been approved. Until such time as the City's DNR Water Emergency and Conservation Plan is approved, the information included shall fulfill the requirements of the Wellhead Protection Plan Chapter 7. Upon approval of the City's DNR Water Emergency and Conservation Plan, the approved plan shall be incorporated to supersede the information herein.

I. PUBLIC WATER SUPPLY CHARACTERISTICS

Treatment

There are three water treatment plants – Commons Park, Locke Park, and Plant No. 3 – that filter most of the water consumed by residents of the City of Fridley. Originally the Commons Park and Locke Park water treatment plants removed only iron. In 1988, the Commons Park plan was upgraded to also remove manganese. A similar upgrade was completed at the Locke Park plant in 1994. Plant No. 3, located at Highway 65 and 73½ Avenue, was constructed as an iron and manganese removal plant in 1997.

Table 6: Treatment Capacity

Water Treatment Design Capacity – Commons Pk WTP	12.1 Million Gallons per day
Water Treatment Design Capacity – Locke Park	2.9 Million Gallons per day
Water Treatment Design Capacity – WTP No. 3	2.2 Million Gallons per day
Total Water Treatment Design Capacity*	**17.2** Million Gallons per day
Treatment Processes: Fe/Mn removal, filtration, fluoridation, chlorination at all WTPs. Radionuclide removal at Commons Park WTP. Fe/Mn sequestration, fluoridation, and chlorination from unfiltered Wells 1 and 13 (Standby).	

*Note: Total Emergency Capacity is 23.2 Million Gallons per day.

The primary alternate water supply is from the City of New Brighton. The City of Fridley is currently using source water from TCAAP via the City of New Brighton on a regular basis. The water is filtered, and the City has a booster station which applies chlorine to the water from this source. As this is a current supplemental water supply, it is an excellent alternative water supply, as treatment and distribution processes are already in place to deliver water to consumers.

The City has a major interconnection with the City of New Brighton as described earlier, which introduces water into the low and/or intermediate water system. The primary purpose of the interconnection is to deliver flow from New Brighton to Fridley. However, in an emergency situation in New Brighton, the interconnection could be used in reverse

to deliver water from Fridley to New Brighton. In this mode, the interconnection could deliver in excess of 3 mgd to New Brighton.

The Fridley water system also provides water service to a limited number of residents of Coon Rapids, Mounds View, and New Brighton. However, the Fridley water system is not interconnected with the water systems of Coon Rapids.

Storage Capacity

The storage Capacity of the City of Fridley system is summarized in the table below.

Table 7: Storage Capacity

Total Storage Capacity		**Average Day Demand** (average of last 5 years)
6,500,000 Gallons		3,892,000 Gallons per day
Type of Structure	Number of Structures	Gallons
Elevated Storage	2	2,000,000
Ground Storage	2	4,500,000

Table 8: Total Water Source Capacity for System

Total Capacity of Sources	11,100 Gallons per minute*
Firm Capacity (largest pump out of service)	9,550 Gallons per minute*

*Note: Excludes standby capacity of 1,525 GPM.

The primary alternate water supply is from the City of New Brighton. The City of Fridley is currently using source water from TCAAP via the City of New Brighton on a regular basis. The water is filtered, and the City has a booster station which applies chlorine to the water from this source. As this is a current supplemental water supply, it is an excellent alternative water supply, as treatment and distribution processes are already in place to deliver water to consumers.

II. PRIORITY OF WATER USERS DURING WATER SUPPLY EMERGENCY

Below is a list of priorities for demand reduction by user category. Also included is a summary of triggers that would implement water demand, reduction, or allocation procedures. At the time of any triggers, the City of Fridley would be in immediate and continuous contact with alternative suppliers to coordinate possible delivery of additional water.

Table 9: Water Use Priorities

Customer Category	Allocation Priority	Average Day Demand (GPD)	Demand Reduction Potential (GPD)
Residential/Institutional	1	2.30 million	--

Comm./Ind. < 10K GPD	2	0.29 million	0.29 million
Agricultural	3	--	--
Power Production	4	--	--
Comm./Ind. > 10K GPD	5	0.30 million	0.30 million
Non-essential	6	0.90 million	0.90 million
	TOTALS	3.79 million	1.49 million*

GPD – Gallons per Day

Table 10: Demand Reduction Procedures

Condition	Trigger(s)	Actions
Stage 1 (Mild)	Weekly Water Demand >80% AFC*	Voluntary Reduction Measures requested through advertising.
Stage 2 (Moderate)	Weekly Water Demand >90% AFC	Process and advertise Resolution/Declaration for Odd/Even Sprinkling Restriction.
Stage 3 (Severe)	Weekly Water Demand >100% AFC	Eliminate 6th Priority Allocation to reduce demand below AFC. Process and advertise total Sprinkling Ban by Resolution/Declaration.
Stage 3 (Severe)	Weekly Water Demand less 6th Priority Allocation >100% AFC	Eliminate 5th to 2nd Priority Allocations to reduce demand below AFC
Critical Water Deficiency (M.S. 103G.291)	Executive Order by Governor & as provided in above triggers	Stage 1: Restrict lawn watering, vehicle washing, golf course and park irrigation and other nonessential uses Stage 2: Suspend lawn watering, vehicle washing, golf course and park irrigation and other nonessential uses

Note: The potential for water availability problems during the onset of a drought are almost impossible to predict. Significant increases in demand should be balanced with preventative measures to conserve supplies in the event of prolonged drought conditions.

*AFC=Adjusted Firm Capacity. This is calculated by deducting the largest capacity source well from the available source capacity, including adjustments for reduced/unavailable production.

III. ALTERNATIVE WATER SUPPLY

Surface Water Sources and Treatment Needs

The City of Fridley uses no raw surface water as part of its alternative water supply.

Bottled Water Supplies, Delivery, and Distribution

As part of the City of Fridley's Water System Emergency Response Plan (ERP), the City maintains a comprehensive list of bottled water sources, which is updated annually.

System Interconnects and Other Water Supply Alternatives

1) New Brighton. The City of Fridley is currently using source water from TCAAP via the City of New Brighton on a regular basis. Depending on the time of year, a full allocation to a demand-reduced allocation can be provided from this source.

2) Minneapolis. A demand-reduced allocation can be provided from this source. Some work is needed to make this interconnect fully functional.

3) Moundsview. A demand-reduced allocation can be provided from this source. Some work is needed to make this interconnect fully functional.

Other Alternative Water Resources

The City of Fridley has no other planned alternative water resources.

IV. INVENTORY OF AVAILABLE EMERGENCY EQUIPMENT AND MATERIALS

All tools and necessary equipment for repairs of water lines, treatment plants, and pumphouse equipment are on hand at all times. The City also has access to pipes, valves and tools from a local supplier at all hours. The city has a small quantity of pipe, valves, and fittings in stock. The City has pre-selected contractors with skills, materials, and equipment available for major repairs on a 24-hr emergency basis.

Lists of available equipment, personnel protective equipment, emergency equipment, contractors, and mutual aid with neighboring communities and Anoka County are all kept on file at the Public Works Building.

V. NOTIFICATION PROCEDURES

Fridley has a Water Utility Emergency Telephone List which includes work and home phone numbers of key emergency and coordination contacts. The information in the tables below is included in these lists. For security and privacy reasons, this list is not included in this document.

If in doubt, employees have been instructed to dial 911 to initiate emergency response procedures. The City posts an employee schedule weekly. This schedule details who is on call. The Anoka County dispatcher (427-1212) has a copy of the schedule and knows how to contact key employees during an emergency.

Table 11: Lead Coordinating Agency (Sample Only)

Contact	Home Phone	Work Phone	Address	Response Assignment	Alternate
Water System Personnel					
System Operator					
Mayor/Board Chair					
Board/Council Members					
Board/Council Members					
Board/Council Members					
State Incident Duty Officer					
County Emergency Director					
Fire Chief					
Sheriff					
Police Chief					
School Superintendent					
Ambulance					
Hospital					
Power Company					
Highway Department					
Neighboring Water System					
MPCA Groundwater Division					
MRWA Technical Services					
MDH Contact					

Table 12: Incident Assessment Team (Sample Only)

Contact	Home Phone	Work Phone
Mayor/Board Chair		
Board/Council Members		
Board/Council Members		
Board/Council Members		
Board/Council Members		
System Personnel		
Fire Chief		
Police Chief		
Sheriff		
County Emergency Director		
Hazardous Materials Response		

Public Information Plan

As part of the City of Fridley's Water System Emergency Response Plan (ERP), the City maintains a notification procedure, along with a set of prepared public notifications and press releases. Public notification may include 1) written notification of water restriction/events to all affected parties, and 2) notice may be given as deemed appropriate by the City Council and may include newspaper articles, radio, and television.

VI. MITIGATION AND CONSERVATION PLAN

Reducing vulnerability / Improving response capabilities

This information is included in the City of Fridley's Water System Emergency Response Plan (ERP).

Fridley has completed a vulnerability assessment for the system that includes plans, procedures, and identification of equipment that can be implemented or utilized in the event of a system disruption.

Water system specific exercises, drills, and training sessions will be held annually or more frequently if the Public Works Director, Water Supervisor, or Public Safety Director deems it necessary. Training will consist of the following programs:

- Orientation Sessions: basic instruction and explanation of the ERP and Action Plans.
- Table Top Workshops: developing scenarios that simulate a real-life event. Employees verbally respond to the problem statement.
- Functional Exercises: Simulation of a real-life event.
- Full Scale Drills: Simulation of a real-life event, with mobilization of emergency response personnel and equipment.

Updates of the ERP have included or will include the following items:

- A map showing locations of all critical customers.
- Contact information for all critical customers.
- Written procedures for opening connections to neighboring water systems.
- Comprehensive list of bottled water sources.
- Valve and hydrant exercising program.
- Tour and review of facilities by Fridley Police and North Suburban Hazmat Team.
- Customized Press Releases and Boil Water/Do Not Drink alerts.
- Completed System Shutdown and Isolation Plan.
- Other response procedures identified in the training and usage of the ERP.
- City resolution for adopting triggers for implementing water allocation procedures.

Efforts to reduce the amount of water used

Water meters

The City currently requires that all connections to public services be metered. The majority of meters are read quarterly by the property owner and recorded on a card that is returned to the City. The meters for large commercial customers are read by the City Utility Division.

The meters are owned by the customers. Since 1985, the City has required customers to purchase meters from the City to ensure a consistent type and quality. Over the last ten years, the City has taken aggressive steps to ensure that all buildings in the City are metered which has improved record keeping and system revenues and reduced the volume of water classified as unallocated.

Fridley, with approximately 8400 water service connections (mostly installed in the early 1950s through the early 1970s), had historically replaced approximately 50 meters per year. The City has been replacing meters at an accelerated rate of 250 per year for the past several years, and in 2009, will be replacing 500 meters to reduce our average meter age.

The City is proposing to replace backwashing metering at its largest water plant (Commons Water Treatment Plant) as part of an improvement project to be completed in 2009. The City is also evaluating costs of metering its irrigation uses.

Public education
The City implemented an educational program throughout the community during the drought years to emphasize the benefits of water conservation efforts. The City promoted the benefits of water conserving measures and presented the components of lawn sprinkling restrictions through its newsletter and cable television. The local newspapers also promoted these water conservation efforts on a periodic basis.

Below is a table summarizing the current educational efforts by the City of Fridley to reduce the use of water:

Table 13: Current Education Programs

Current Education Programs	Times/Year
Consumer Confidence Reports	1
Community news letters	1
Information at utility and public buildings	1
Cable TV Programs	1
K-12 Education programs (Project Wet, Drinking Water Institute)	1
Events (children's water festivals, environmental fairs)	1
Information provided to groups that tour the water treatment plant	1
Website (http://www.ci.fridley.mn.us/pubwks/water.htm)	1
Notices of ordinances (include tips with notices)	As needed
Emergency conservation notices (recommended)	As needed

The City's Community Development Department administers the State Plumbing Code as part of its Inspection Services Division. This code requires that water-saving plumbing fixtures be utilized for new construction and remodeling projects that involve fixture exchange. The City includes public building replacement and retrofitting as part of its Capital Improvement Program. As projects meet the cost effectiveness test for reconstruction and retrofitting, water conserving fixtures are included in the project.

Rate structure
The sewer and water utilities have been established as enterprise funds and charges have been designed to pay for maintenance and operation of the systems. Historically the City utilized a decreasing block pricing method for water consumption. In 1997, the City raised water rates and eliminated the declining block rate structure.

The City of Fridley passed a proposed rate structure change on December 15, 2008. This more aggressively conservation-based rate structure will replace the previous rate structure starting on January 1, 2009. The rate implementation is an effort to reduce the amount of water used by residents, businesses, and industry

The City of Fridley's 2008 rates and rate structure are shown below.

2008 WATER RATE SCHEDULE

NON-SENIOR RATE

Usage	Charge
0 - 5,000,000	$1.30/1,000 Gal / Minimum $15.60
OVER - 5,000,000	$1.36/1,000/Gal

SENIOR RATE

Usage	Charge
0 - 5,000,000	$0.96/1,000 Gal / Minimum $11.52

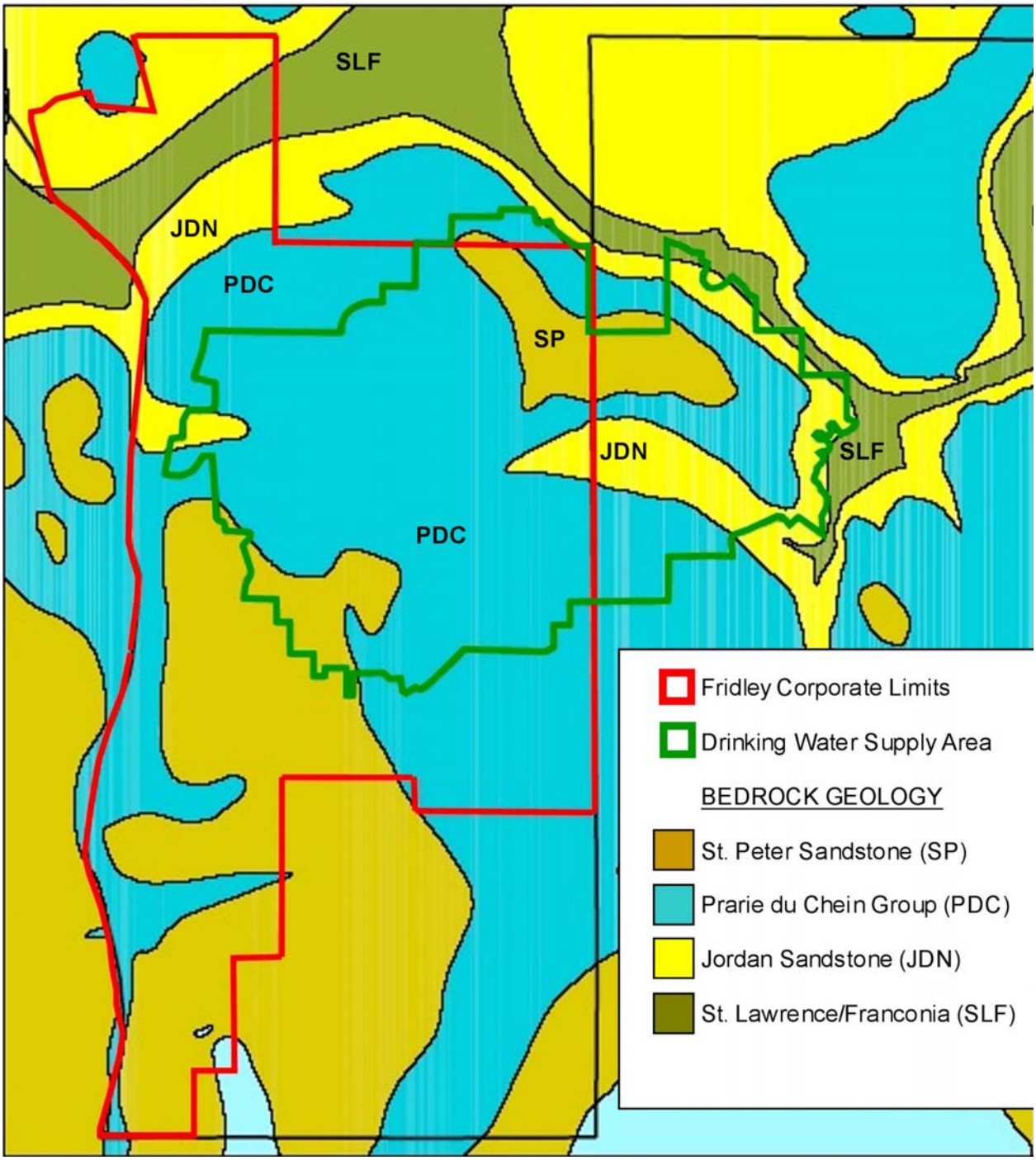
The City of Fridley's 2009 rates and rate structure are shown below.

2009 APPROVED RATE SCHEDULE

Residential	Fixed Charge	Volume Rate By 1,000 Gallons
Actual Consumption (Quarterly 0-20,000)	$9.50	$1.08
Actual Consumption (Quarterly 20,001-40,000)		$1.19
Actual Consumption (Quarterly 40,001-60,000)		$1.30
Actual Consumption (Quarterly 60,001-unlimited)		$1.41
Commercial		
Actual Consumption (Quarterly 0-40,000)	$9.50	$1.30
Actual Consumption (Quarterly 40,001-250,000)		$1.46
Actual Consumption (Quarterly 250,001-500,000)		$1.62
Actual Consumption (Quarterly 500,001-1,000,000)		$1.78
Actual Consumption (Quarterly 1,000,001-unlimited)		$1.94

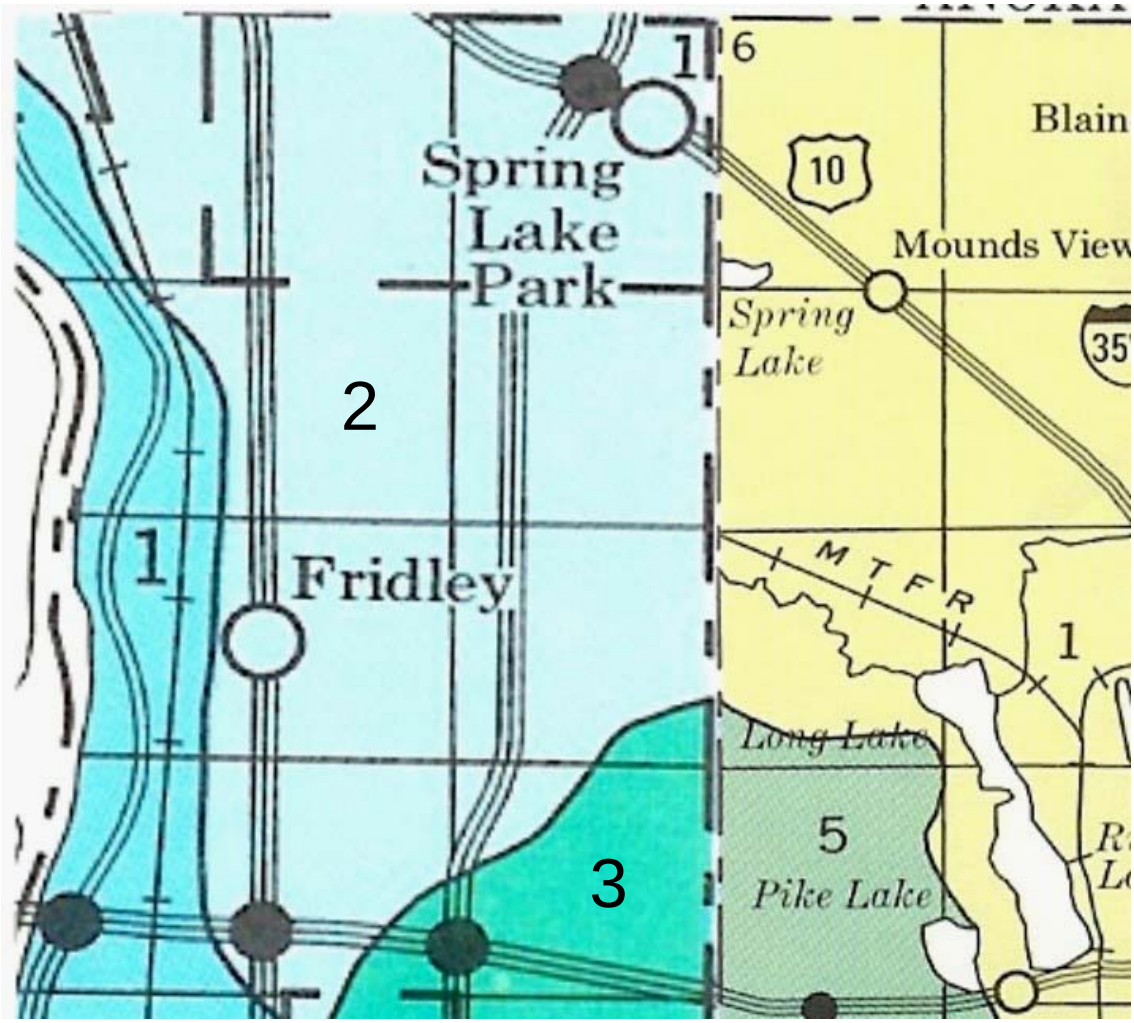
Additional Figures and Tables

Figure 1
Bedrock Geology*



* Adapted from Robertson, Stephen, *Wellhead Protection Plan for the City of Fridley – Part 1*. Figure 3: Minnesota Department of Health, May 2002.

Figure 2
General Soils*



SOIL ASSOCIATIONS

Anoka County

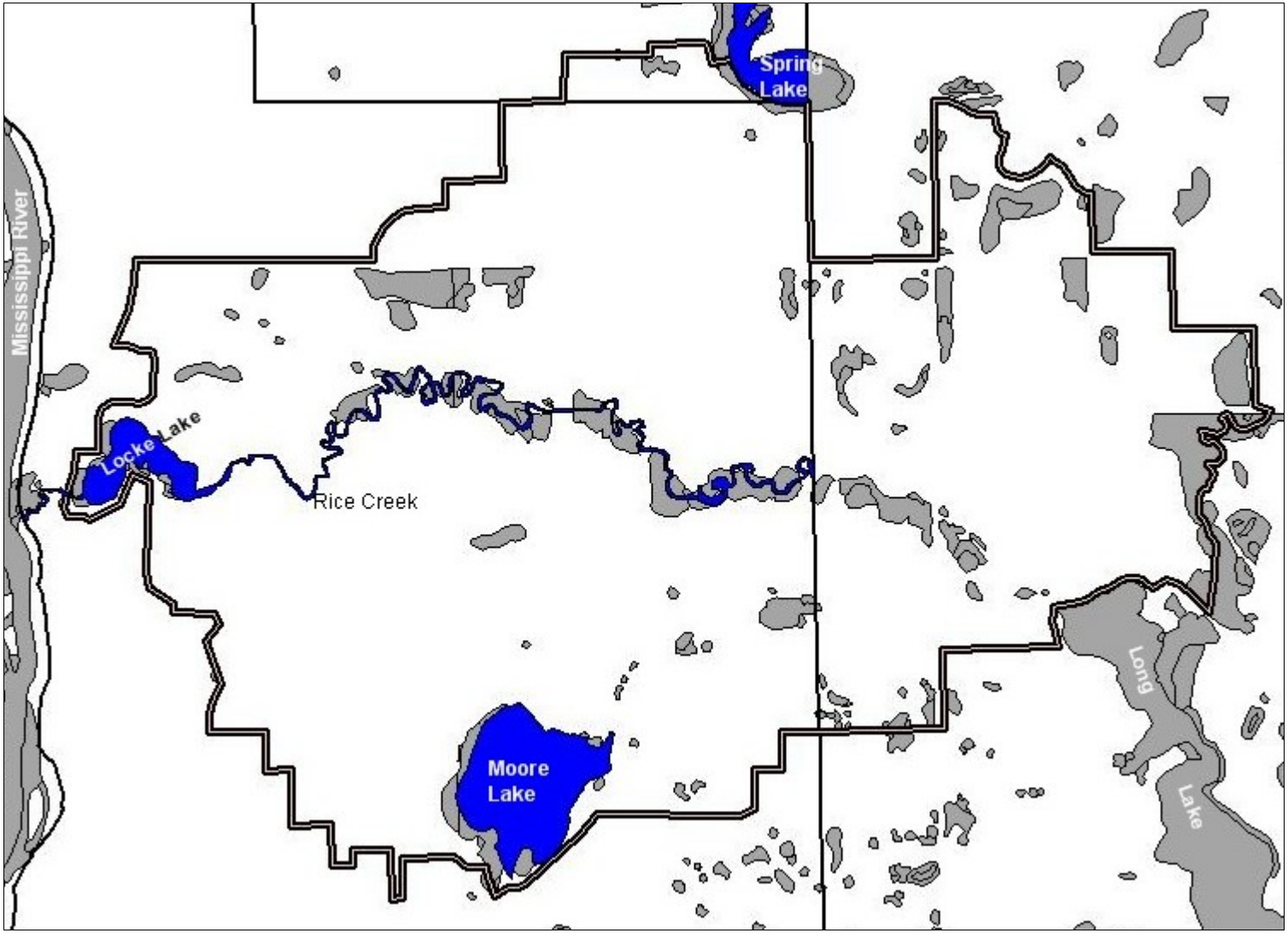
1	Hubbard-Nymore association: Nearly level to gently sloping, excessively drained soils that are sandy throughout
2	Zimmerman-Isanti-Lino association: Nearly level to undulating, excessively drained, somewhat poorly drained, and very poorly drained soils that are dominated by fine sands throughout
3	Heyder-Kingsley-Hayden association: Gently undulating to steep, well drained soils formed in loamy glacial till

Ramsey County

1	Zimmerman-Urban Land-Rifle: Level to gently rolling, excessively drained and very poorly drained, coarse textured soils and organic soils; on uplands
5	Hayden-Urban Land: Undulating to steep, well drained, moderately coarse textured soils and Urban land; on uplands

*Excerpted and modified from the Soil Survey of Anoka County, Minnesota (US Dept. of Agriculture – Soil Conservation Service, Issued September 1977); and the Soil Survey of Washington and Ramsey Counties, Minnesota (US Dept. of Agriculture – Soil Conservation Service, Issued April 1980)

Figure 3
Surface Water and Wetland*



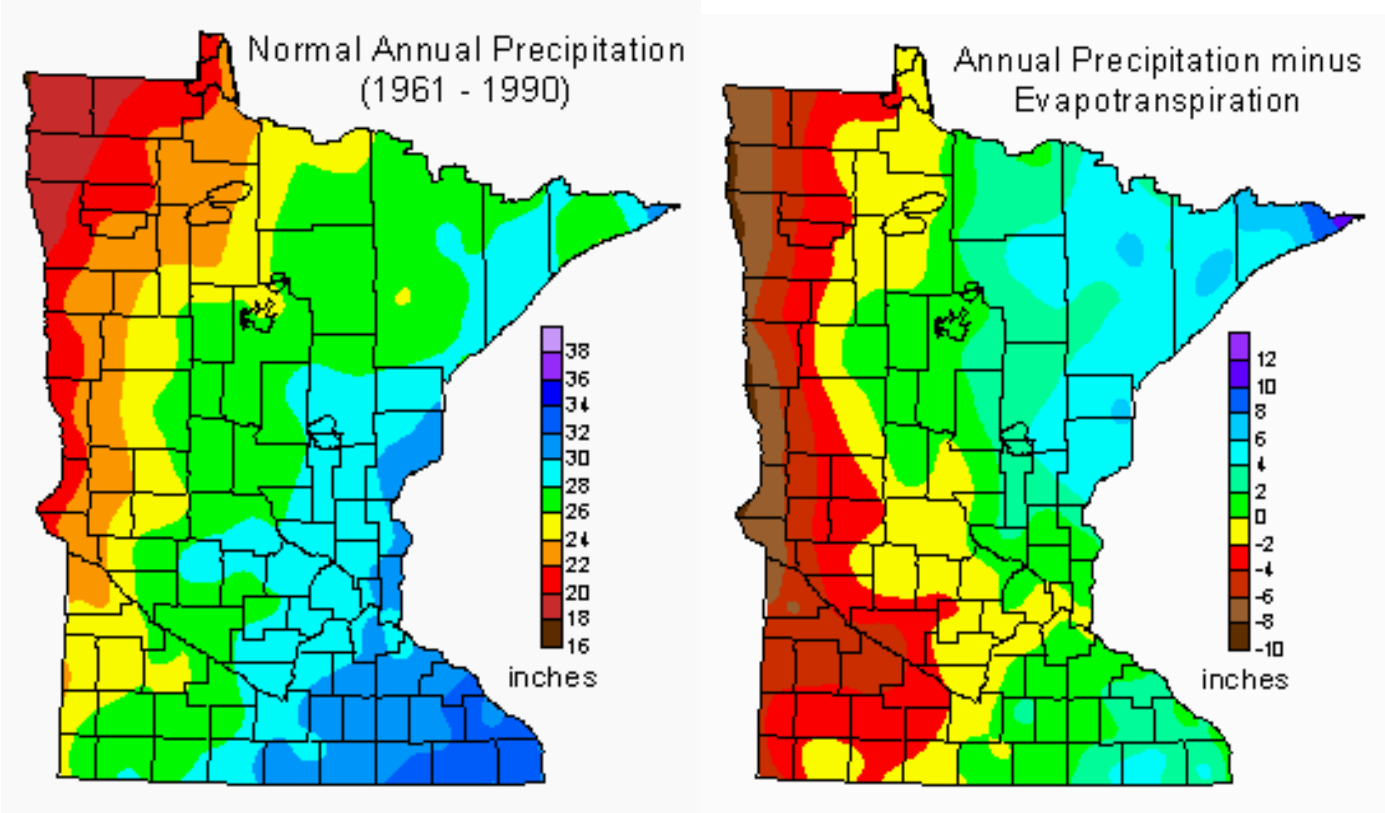
*Excerpt from the Anoka County Geographic Information Service and the National Wetlands Inventory (www.fws.gov/nwi/)

Figure 4
Annual Precipitation

The primary source of moisture for precipitation in Minnesota is the tropical maritime air that moves into the State from the south and southeast. The spatial variation of average (normal) annual precipitation across Minnesota is determined by proximity to these moist air masses coming northward out of the Gulf of Mexico. Therefore, southeastern Minnesota, averaging near 32 inches, receives more precipitation than northwestern Minnesota, less than 19 inches. The normal annual precipitation for Minnesota (1961-1990) is 27.01 inches.

The presence of moist vs. dry air masses also helps to determine the atmosphere's ability to absorb water vapor evaporating from soil and open-water surfaces, or transpiring from leaf surfaces (evaporation plus transpiration is called "evapotranspiration"). Western Minnesota, more frequently under the influence of dry air masses, has higher evapotranspiration rates than the eastern half of the state.

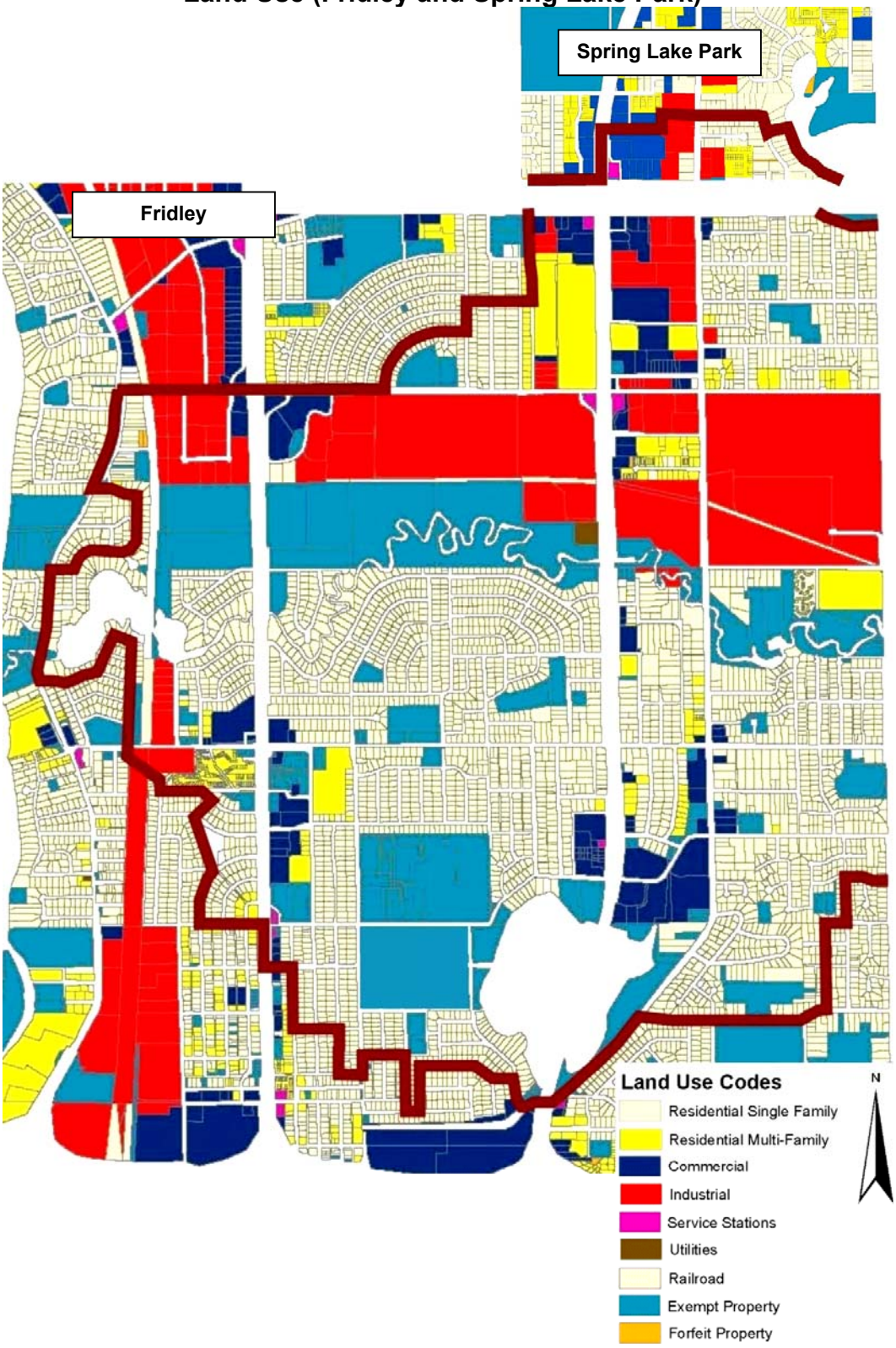
Temperature plays an important role in determining the amount of evapotranspiration. Because temperature patterns are determined mainly by latitude, southern Minnesota experiences more evapotranspiration than in the north. Due to its position in the continent, Minnesota is located on the boundary between the semi-humid climate regime of the eastern U.S., and the semi-arid regime to the west. Semi-humid climates are areas where average annual precipitation exceeds average annual evapotranspiration, leading to a net surplus of water. In semi-arid areas, evapotranspiration exceeds precipitation on average, creating a water deficit. In Minnesota, the boundary between the climate regimes cuts the State roughly into east-west halves



from Climate's impact on water availability; MN DNR

Figure 5a

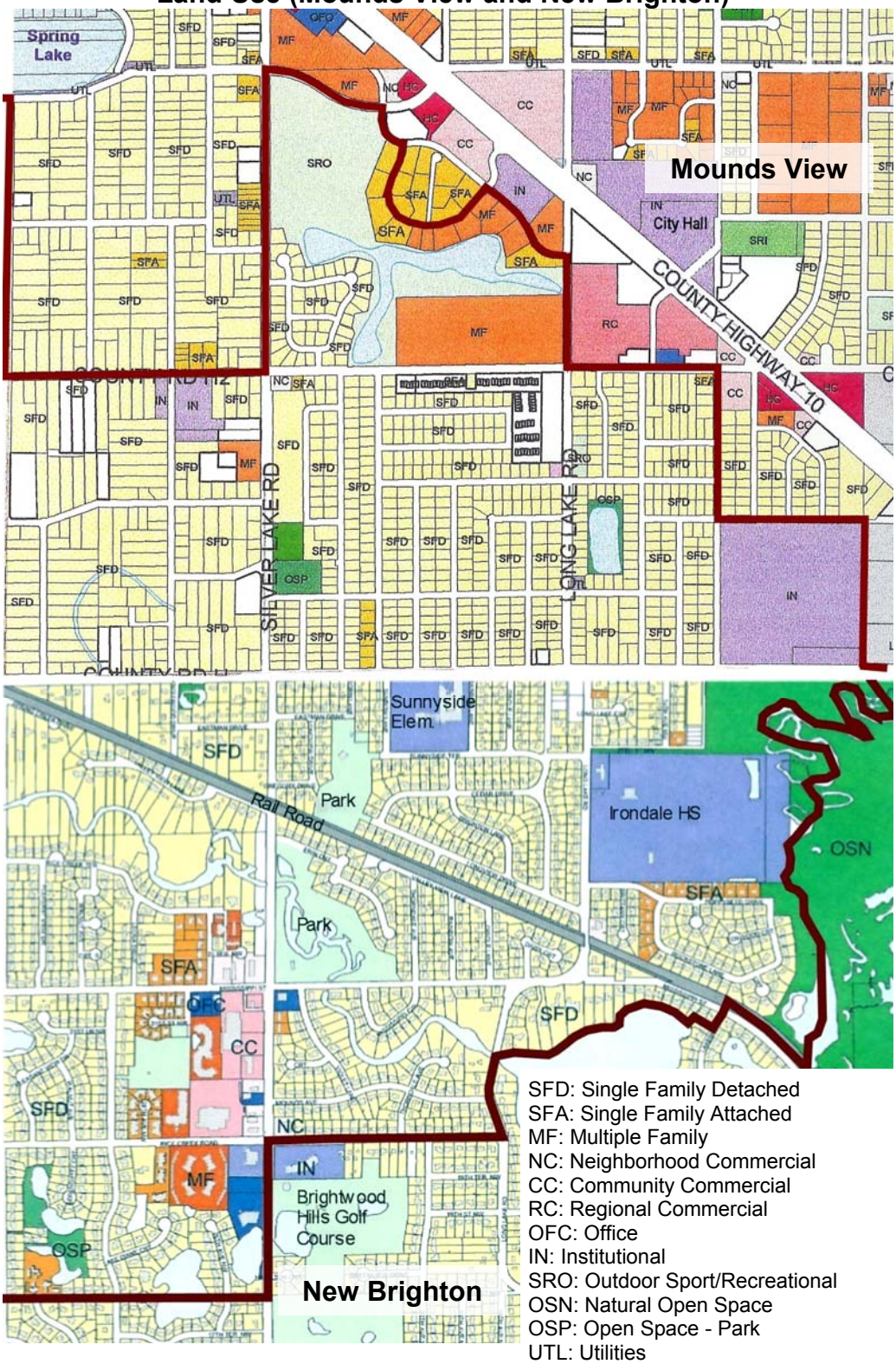
Land Use (Fridley and Spring Lake Park)*



* Provided by Anoka County Geographic Information System Unit

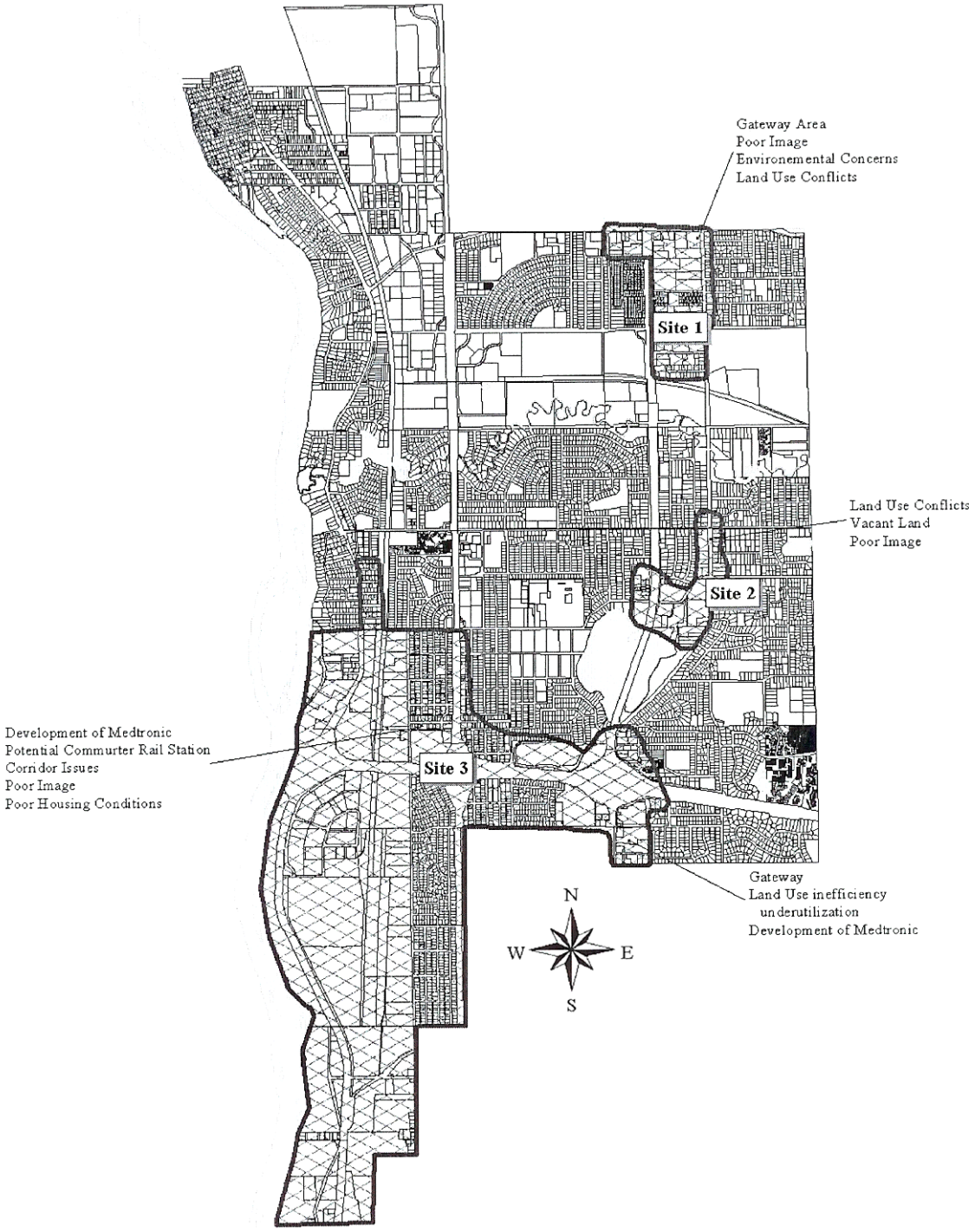
Figure 5b

Land Use (Mounds View and New Brighton)*



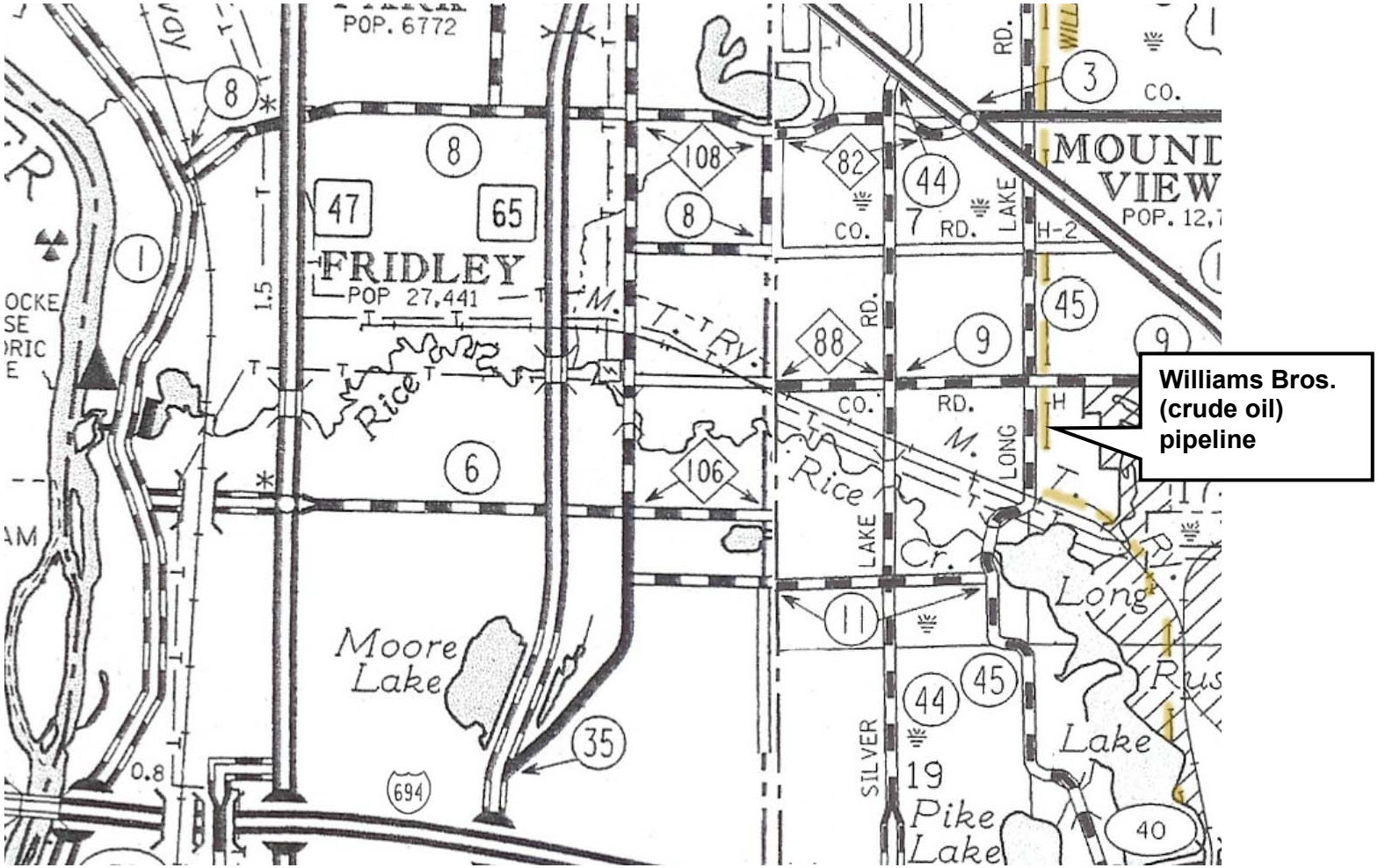
*Excerpts from the land use maps of the Mounds View and New Brighton Comprehensive Plans.

Figure 6
Redevelopment Areas*



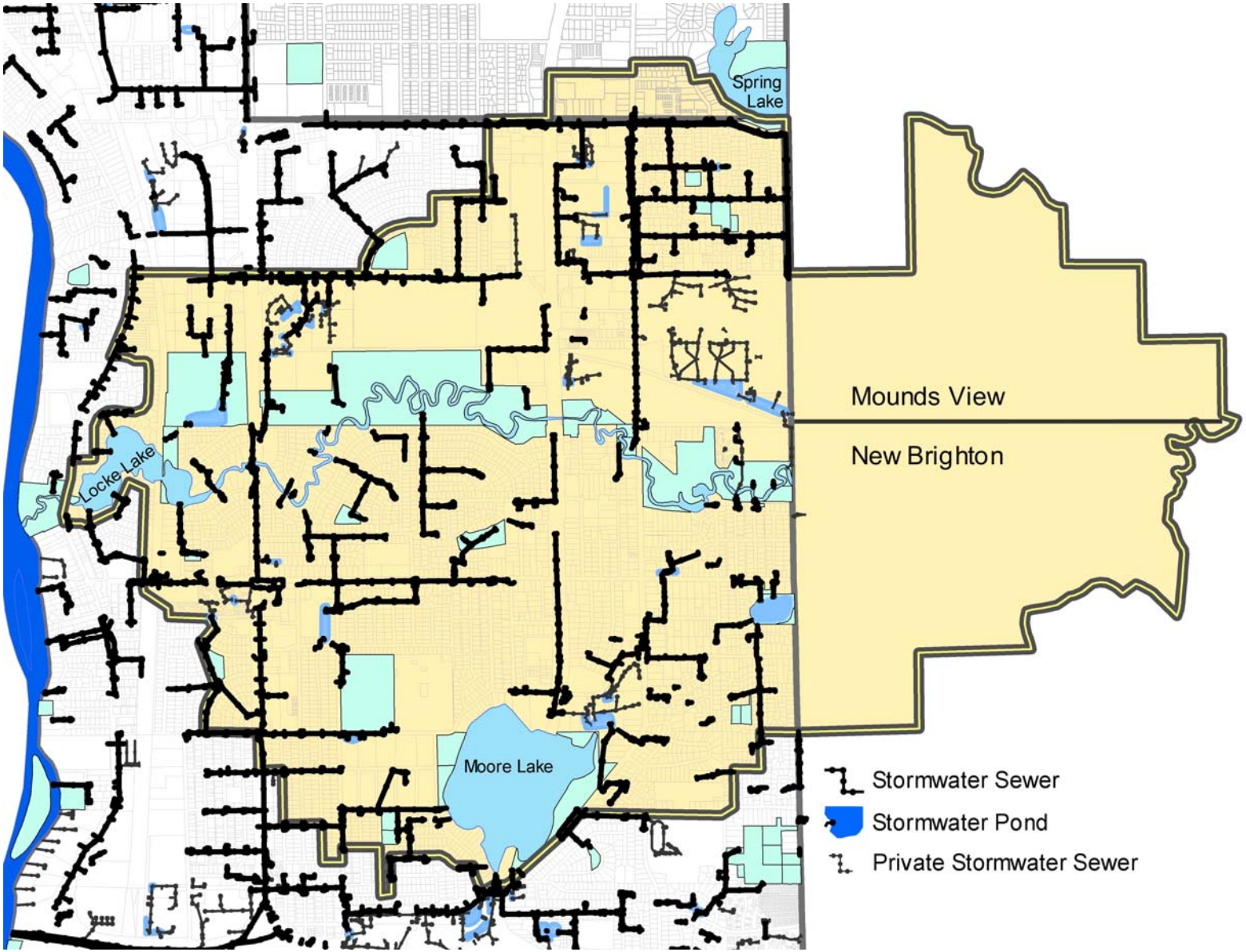
*Excerpt from City of Fridley 2020 Comprehensive Plan (Figure 4; March 2001)

Figure 7
Pipelines



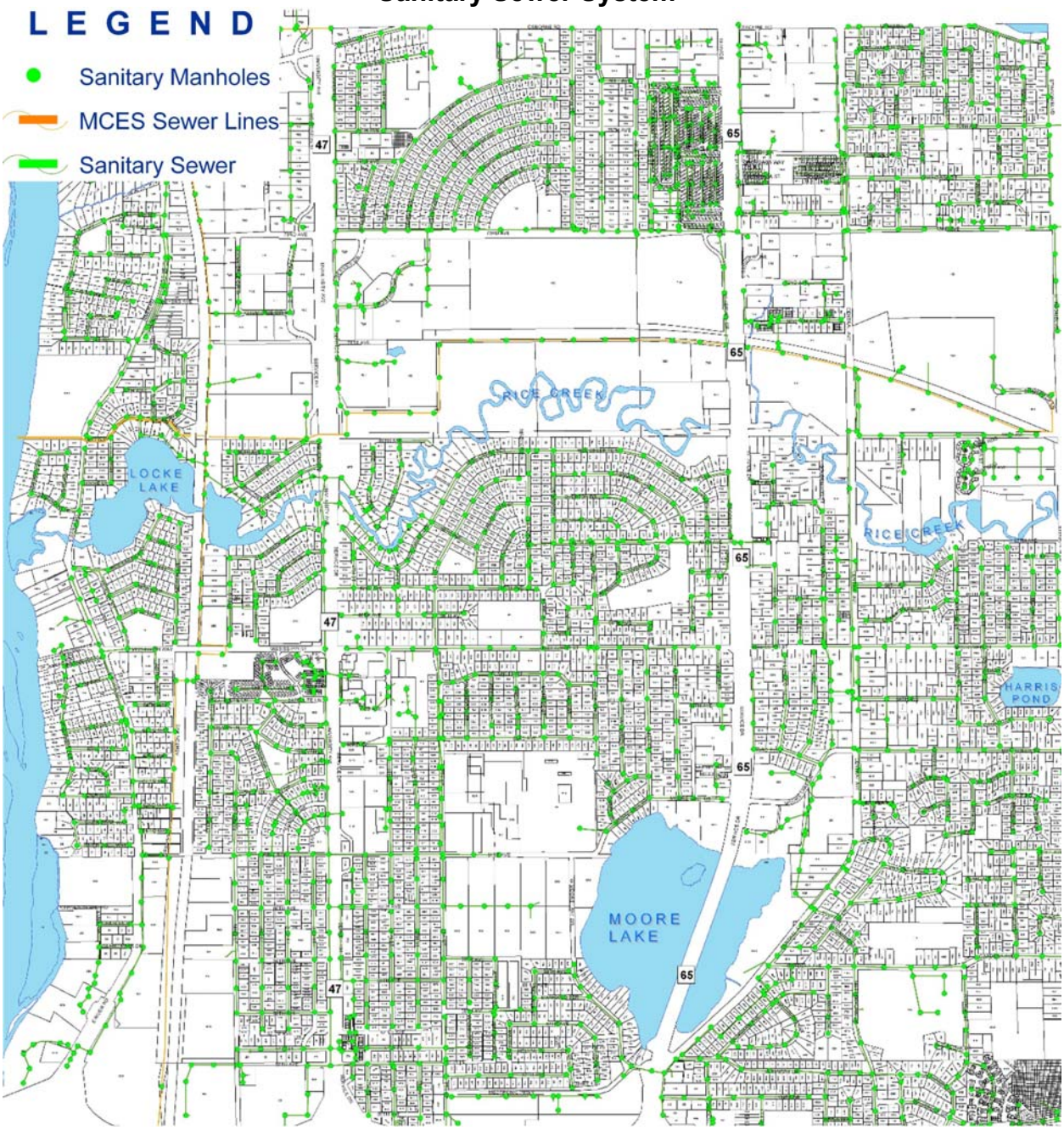
*Excerpted and adapted from the Minnesota Department of Transportation's General Highway Maps, Anoka County (2001) and Ramsey County (2005).

Figure 8
Stormwater Sewers and Ponds*



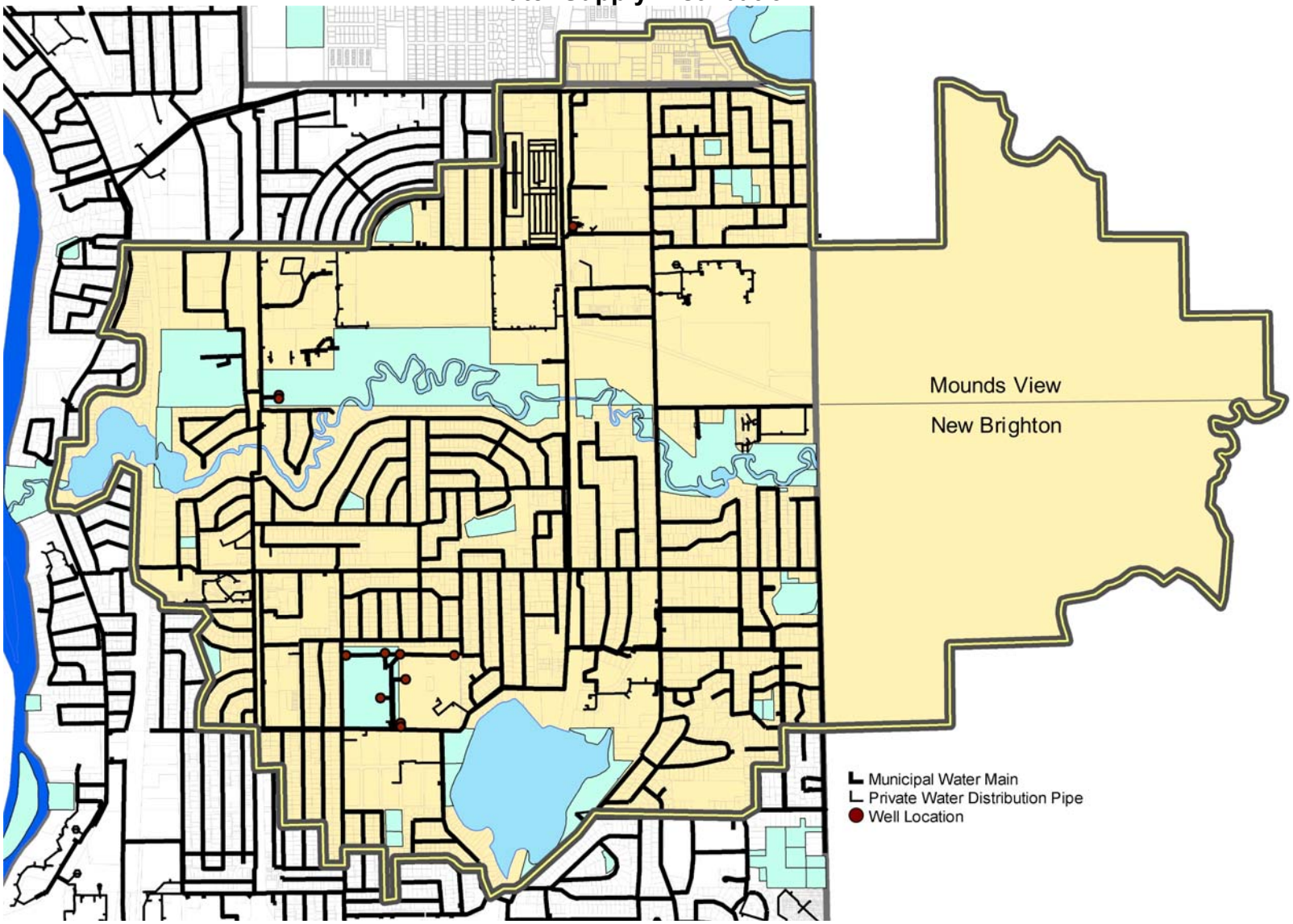
*From the Fridley GIS unit database.

Figure 9
Sanitary Sewer System*



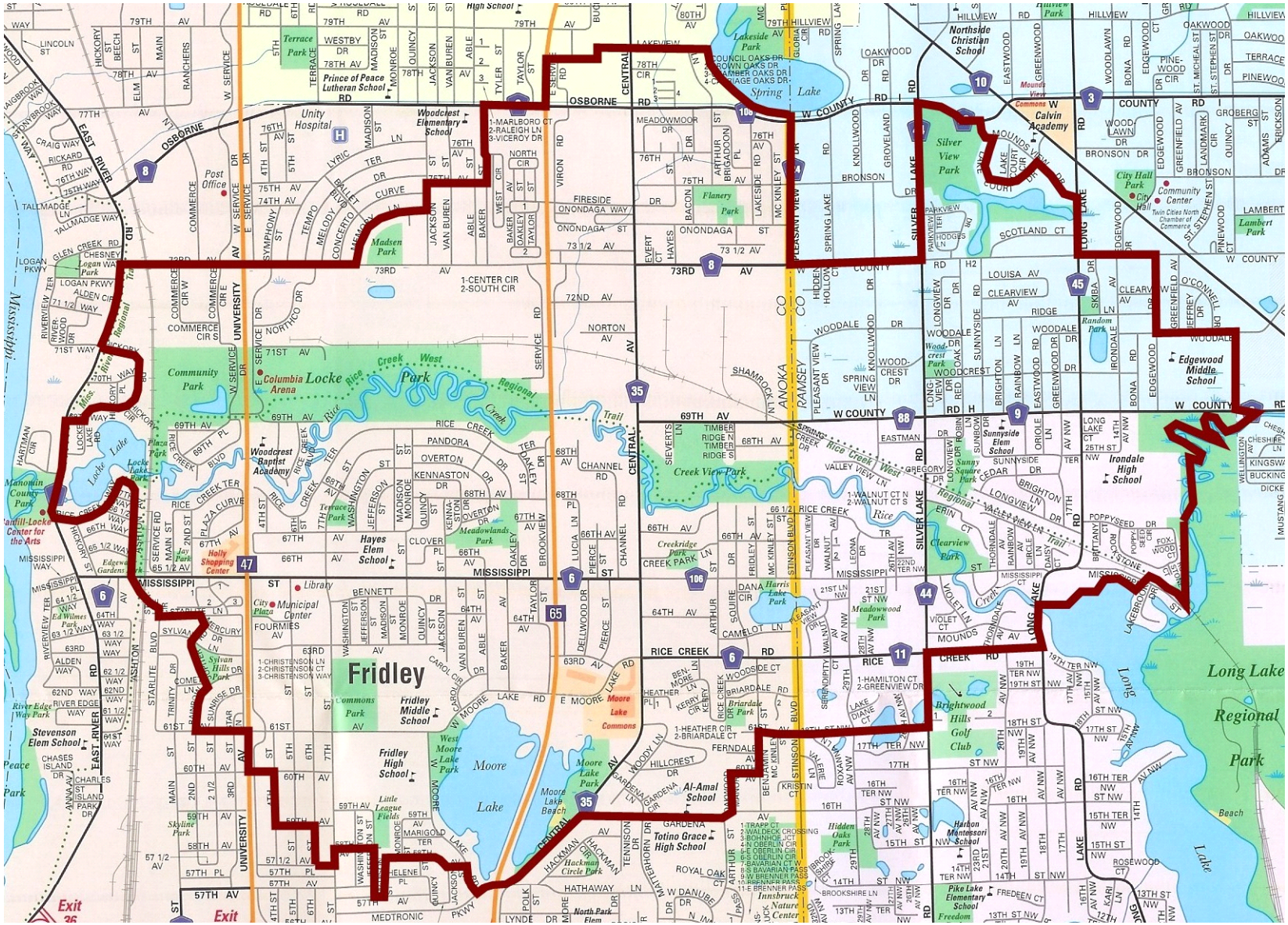
* From the Fridley GIS unit database

Figure 10
Water Supply Distribution*



*From the Fridley GIS unit database.

Figure 11
Road and Rail Transportation Routes



Source: Twin Cities North Chamber of Commerce

Table 1
Regional Precipitation (2002-2006)

Year	MMM	Precip	Annual Totals
2002	Jan	0.48	44.42
	Feb	0.62	
	Mar	2.00	
	Apr	4.96	
	May	5.73	
	Jun	9.11	
	Jul	8.82	
	Aug	5.34	
	Sept	3.26	
	Oct	3.71	
	Nov	0.12	
	Dec	0.27	
2003	Jan	0.38	25.84
	Feb	0.82	
	Mar	1.48	
	Apr	3.05	
	May	6.27	
	Jun	6.01	
	Jul	2.20	
	Aug	0.48	
	Sept	2.28	
	Oct	0.95	
	Nov	0.98	
	Dec	0.94	
2004	Jan	0.50	32.10
	Feb	1.54	
	Mar	1.77	
	Apr	2.97	
	May	7.76	
	Jun	4.12	
	Jul	2.58	
	Aug	1.77	
	Sept	4.51	
	Oct	3.23	
	Nov	1.03	
	Dec	0.32	

Year	MMM	Precip	Annual Totals
2005	Jan	1.38	35.92
	Feb	1.83	
	Mar	1.68	
	Apr	2.09	
	May	2.76	
	Jun	4.31	
	Jul	2.69	
	Aug	3.58	
	Sept	8.02	
	Oct	4.45	
	Nov	1.75	
	Dec	1.38	
2006	Jan	0.70	33.72
	Feb	0.36	
	Mar	2.04	
	Apr	5.21	
	May	5.31	
	Jun	4.27	
	Jul	2.42	
	Aug	5.65	
	Sept	3.32	
	Oct	0.60	
	Nov	1.06	
	Dec	2.78	

Source: National Weather Service
Coon Creek Station 211785
[31N 23W S21]
[Lat: 45.16087 Lon: 93.21470]

Appendix A: Location of Probable Wells

Appendix A
Location of Probable Wells

Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
*	003-013024340006	7730 CENTRAL AVE NE	Residential	1958	1961
*	003-013024340021	7718 CENTRAL AVE NE	Residential	1957	1961
*	003-013024340022	7710 CENTRAL AVE NE	Residential	1949	1961
*	003-013024340023	7714 CENTRAL AVE NE	Residential	1948	1961
*	003-013024430004	7705 CENTRAL AVE NE	Industrial	1960	1961
*	003-013024430037	7713 LAKEVIEW LN NE	Residential	1958	1961
*	003-013024430038	7715 LAKEVIEW LN NE	Residential	1958	1961
*	003-013024430039	7720 LAKEVIEW LN NE	Residential	1953	1961
*	003-013024430041	7716 LAKEVIEW LN NE	Residential	1948	1961
*	003-013024430043	7712 LAKEVIEW LN NE	Residential	1948	1961
*	003-013024430049	7700 LAKEVIEW LN NE	Residential	1958	1961
*	003-013024440002	7711 LAKEVIEW LN NE	Residential	1958	1961
*	003-013024440004	7709 LAKEVIEW LN NE	Residential	1955	1961
*	003-013024440005	7707 LAKEVIEW LN NE	Residential	1958	1961
15	003-103024140006		Exempt	(1)	1964
16	003-103024410010		Exempt	(1)	1964
17	003-103024410017	7221 E RIVER RD	Residential	1940	1957
18	003-103024410018	7217 E RIVER RD	Residential	1940	1957
19	003-103024410021	7201 E RIVER RD	Residential	1953	1957
20	003-103024410022	7191 ASHTON AVE NE	Residential	1985	(1)
21	003-103024410024	7181 ASHTON AVE NE	Residential	1920	(1)
22	003-103024410025	(21 Meyers Ave. NE)		(1)	1964
23	003-103024410026	(11 Meyers Ave. NE)		(1)	1964
24	003-103024410027	7155 ASHTON AVE NE	Residential	1953	1980
25	003-103024410028	7135 ASHTON AVE NE	Residential	1978	1980
26	003-103024410029	7129 ASHTON AVE NE	Residential	1978	1980
*	003-103024410032		Exempt	(1)	1964
28	003-103024410037	(20 Meyers Ave. NE)	Exempt	(1)	1964
*	003-103024410054		Exempt	(1)	1979
30	003-103024410068		Exempt	(1)	1979
31	003-103024440013	7099 HICKORY DR NE	Exempt	(1)	1957
32	003-103024440061		Exempt	(1)	1982
33	003-103024440062		Exempt	(1)	1982
34	003-103024440063		Exempt	(1)	1982
35	003-113024130099		Exempt	(1)	1960
36	003-113024140017	7331 JACKSON ST NE	Residential	1965	1966
37	003-113024140019	7311 JACKSON ST NE	Residential	1965	1966
38	003-113024140057	7470 ABLE ST NE	Residential	1960	1961
39	003-113024140058	7460 ABLE ST NE	Residential	1960	1961
40	003-113024140059	7450 ABLE ST NE	Residential	1960	1961
41	003-113024140060	7440 ABLE ST NE	Residential	1960	1961
42	003-113024140061	7430 ABLE ST NE	Residential	1960	1961
43	003-113024140064	7410 ABLE ST NE	Residential	1954	1961

Appendix A
Location of Probable Wells

Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
44	003-113024140065	7388 ABLE ST NE	Residential	1950	1961
45	003-113024140066	7374 ABLE ST NE	Residential	1958	1961
46	003-113024140068	7344 ABLE ST NE	Residential	1954	1961
47	003-113024140069	7330 ABLE ST NE	Residential	1951	1961
48	003-113024140070	7316 ABLE ST NE	Residential	1951	1961
49	003-113024140072	7301 VAN BUREN ST NE	Residential	1955	1960
50	003-113024140073	7305 VAN BUREN ST NE	Residential	1955	1960
51	003-113024140074	7331 VAN BUREN ST NE	Residential	1954	1960
52	003-113024140075	7345 VAN BUREN ST NE	Residential	1950	1960
53	003-113024140076	7361 VAN BUREN ST NE	Residential	1950	1960
54	003-113024140078	7389 VAN BUREN ST NE	Residential	1951	1960
55	003-113024140079	7395 VAN BUREN ST NE	Residential	1951	1960
56	003-113024140080	7411 VAN BUREN ST NE	Residential	1950	1960
57	003-113024140083	7441 VAN BUREN ST NE	Residential	1959	1960
58	003-113024140086	7471 VAN BUREN ST NE	Residential	1959	1960
59	003-113024140092	7420 VAN BUREN ST NE	Residential	1959	1960
60	003-113024140093	7410 VAN BUREN ST NE	Residential	1953	1960
61	003-113024140094	7396 VAN BUREN ST NE	Residential	1953	1960
62	003-113024140095	7386 VAN BUREN ST NE	Residential	1957	1960
63	003-113024140096	7374 VAN BUREN ST NE	Residential	1952	1960
64	003-113024140097	7358 VAN BUREN ST NE	Residential	1953	1960
65	003-113024320032	7200 UNIVERSITY AVE NE	Commercial	(1)	1979
66	003-113024330003		Exempt	(1)	1982
67	003-113024330005		Exempt	(1)	1982
68	003-113024340002	7011 UNIVERSITY AVE NE	Exempt	(1)	1960
69	003-113024340003		Exempt	(1)	1982
70	003-113024340005		Exempt	(1)	1982
71	003-113024420010	490 NORTHCO DR	Industrial	1971	1989
72	003-113024430001		Exempt	(1)	1968
73	003-113024440001		Exempt	2001	1968
74	003-123024110006	7501 LAKESIDE RD NE	Residential	1950	1961
75	003-123024110028	1621 76TH AVE NE	Residential	1943	1973
76	003-123024110033	1682 OSBORNE RD NE	Residential	1943	1961
77	003-123024110037	1670 OSBORNE RD NE	Residential	1953	1961
78	003-123024110038	1658 OSBORNE RD NE	Residential	1947	1961
79	003-123024110039	7600 STINSON BLVD NE	Residential	1943	1961
80	003-123024110040	7584 STINSON BLVD NE	Residential	1952	1961
81	003-123024110041	7566 STINSON BLVD NE	Residential	1955	1961
82	003-123024110042	7500 STINSON BLVD NE	Residential	1942	1961
83	003-123024110047	1646 OSBORNE RD NE	Residential	1959	1961
84	003-123024110048	1624 OSBORNE RD NE	Residential	1958	1961
85	003-123024110049	7645 LAKESIDE RD NE	Residential	1950	1961
86	003-123024110058	7500 LAKESIDE RD NE	Residential	1943	1961

Appendix A
Location of Probable Wells

Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
87	003-123024110066	1501 75TH AVE NE	Residential	1956	1961
88	003-123024110067	1525 75TH AVE NE	Residential	1956	1961
89	003-123024110079	1500 OSBORNE RD NE	Residential	1955	1961
90	003-123024110132	1586 OSBORNE RD NE	Residential	1947	1961
91	003-123024110134	1524 OSBORNE RD NE	Residential	1958	1961
92	003-123024120001	7561 CENTRAL AVE NE	Residential	1959	1961
93	003-123024120002	7571 CENTRAL AVE NE	Residential	1914	1961
94	003-123024120003	7567 CENTRAL AVE NE	Residential	1955	1961
95	003-123024120026	7551 CENTRAL AVE NE	Residential	1959	1961
96	003-123024120027		Exempt	(1)	1961
97	003-123024120030	1483 75TH AVE NE	Residential	1959	1961
98	003-123024120031	1473 75TH AVE NE	Residential	1960	1961
99	003-123024120032	1463 75TH AVE NE	Residential	1960	1961
100	003-123024130001		Exempt	(1)	1961
101	003-123024130002	7432 BACON DR NE	Residential	1959	1974
102	003-123024130005	7426 BACON DR NE	Residential	1949	1974
103	003-123024130006	1465 ONONDAGA ST NE	Residential	1950	1961
104	003-123024130013	1367 FIRESIDE DR NE	Residential	1962	1964
105	003-123024130014	1377 FIRESIDE DR NE	Residential	1932	1964
106	003-123024130016	1335 ONONDAGA ST NE	Residential	1952	1961
107	003-123024130018	1381 ONONDAGA ST NE	Residential	1960	1961
108	003-123024130019	7345 CENTRAL AVE NE	Residential	1926	1961
109	003-123024130020	7356 HAYES ST NE	Residential	1952	(1)
110	003-123024130021	7370 HAYES ST NE	Residential	1950	(1)
111	003-123024130022	7328 HAYES ST NE	Residential	1960	(1)
112	003-123024130023	7342 HAYES ST NE	Residential	1960	(1)
113	003-123024130024	7300 HAYES ST NE	Residential	1960	(1)
114	003-123024130025	7314 HAYES ST NE	Residential	1960	(1)
115	003-123024130027	7343 HAYES ST NE	Residential	1952	(1)
116	003-123024130028	7345 HAYES ST NE	Residential	1951	(1)
117	003-123024130030	1401 73RD AVE NE	Residential	1952	1967
118	003-123024130032	1434 ONONDAGA ST NE	Residential	1955	1961
119	003-123024130034	1470 ONONDAGA ST NE	Residential	1952	1961
120	003-123024130036	1476 ONONDAGA ST NE	Residential	1942	1961
*	003-123024130037	1475 73RD AVE NE	Residential	1948	1967
*	003-123024130039	1485 73RD AVE NE	Residential	1952	1967
123	003-123024130040	7395 HAYES ST NE	Residential	1968	(1)
124	003-123024130041	7385 HAYES ST NE	Residential	1964	(1)
125	003-123024130042	7355 HAYES ST NE	Residential	1961	(1)
126	003-123024130043	7371 HAYES ST NE	Residential	1950	(1)
127	003-123024130063	1400 FIRESIDE DR NE	Residential	1941	1964
128	003-123024130072	1483 ONONDAGA ST NE	Residential	1958	1961
129	003-123024130073	1473 ONONDAGA ST NE	Residential	1958	1961

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Location of Probable Wells

Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
130	003-123024130075	7425 BACON DR NE	Residential	1959	1974
131	003-123024130083	7365 CENTRAL AVE NE	Commercial	1950	1961
132	003-123024130084	1360 ONONDAGA ST NE	Commercial	(1)	1961
133	003-123024130087	1390 ONONDAGA ST NE	Residential	1952	1961
134	003-123024130090	1482 ONONDAGA ST NE	Residential	1960	1961
135	003-123024140003	1618 ONONDAGA ST NE	Residential	1930	1961
136	003-123024140006	1641 73RD AVE NE	Residential	1950	1967
137	003-123024140008	1655 73RD AVE NE	Residential	1956	1967
138	003-123024140010	7376 STINSON BLVD NE	Residential	1954	1961
139	003-123024140011	7360 STINSON BLVD NE	Residential	1953	1961
140	003-123024140012	7340 STINSON BLVD NE	Residential	1959	1961
141	003-123024140013	1667 73RD AVE NE	Residential	1962	1967
142	003-123024140014	1685 73RD AVE NE	Residential	1949	1967
143	003-123024140022	1533 ONONDAGA ST NE	Residential	1948	1961
144	003-123024140023		Exempt	(1)	1961
145	003-123024140025	1491 ONONDAGA ST NE	Residential	1948	1961
146	003-123024140028	1565 73RD AVE NE	Residential	1955	1967
147	003-123024140036	1621 ONONDAGA ST NE	Residential	1946	1961
148	003-123024140047	7450 STINSON BLVD NE	Residential	1925	1961
149	003-123024140091		Exempt	(1)	1961
150	003-123024220007		Res (MHP)	(1)	1961
151	003-123024220029	7600 HIGHWAY 65 NE	Commercial	(1)	1961
152	003-123024230002	7400 HIGHWAY 65 NE	Res (MHP)	(1)	1961
153	003-123024230004	7500 HIGHWAY 65 NE	Res (MHP)	(1)	1961
154	003-123024240004	1130 FIRESIDE DR NE	Res (MHP)	(1)	1965
155	003-123024240005	1160 FIRESIDE DR NE	Commercial	(1)	1965
156	003-123024240006		Res (MHP)	(1)	1961
157	003-123024240022		Commercial	1953	1961
158	003-123024240039	1230 73RD AVE NE	Commercial	(1)	1960
159	003-123024240040	1240 73 1/2 AVE NE	Commercial	(1)	1961
160	003-123024240041	7340 CENTRAL AVE NE	Residential	1948	1961
161	003-123024240052		Commercial	(1)	1961
162	003-123024240053		Exempt	(1)	1961
163	003-123024310008	7191 HIGHWAY 65 NE	Commercial	1956	1967
164	003-123024310009	7112 CENTRAL AVE NE	Residential	1915	1961
165	003-123024310010	7151 HIGHWAY 65 NE	Commercial	(1)	1967
166	003-123024310011			(1)	1967
167	003-123024310012		Commercial	(1)	1967
*	003-123024310013	1163 NORTON AVE NE	Residential	1958	1967
*	003-123024310014	1175 NORTON AVE NE	Residential	1954	1967
*	003-123024310015	1215 NORTON AVE NE	Residential	1945	1967
171	003-123024310017	1245 NORTON AVE NE	Residential	1940	1967
172	003-123024310018	1251 NORTON AVE NE	Residential	1948	1967

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Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
*	003-123024310020	1275 NORTON AVE NE	Residential	1948	1967
*	003-123024310023	1152 NORTON AVE NE	Residential	1945	1967
*	003-123024310024	1170 NORTON AVE NE	Residential	1954	1967
176	003-123024310026	1200 NORTON AVE NE	Residential	1918	1967
177	003-123024310027	1214 NORTON AVE NE	Residential	1960	1967
178	003-123024340002		Exempt	(1)	1960
179	003-123024340003	6970 CENTRAL AVE NE	Industrial	(1)	1961
180	003-123024340004		Industrial	(1)	1967
181	003-123024410003	1400 73RD AVE NE	Industrial	(1)	1967
182	003-123024430001	6951 CENTRAL AVE NE	Industrial	(1)	1961
183	003-123024430004		Industrial	(1)	1967
184	003-123024440002		Industrial	(1)	1967
185	003-133024110086		Exempt	(1)	1967
186	003-133024110089		Exempt	(1)	1972
187	003-133024120002	1370 69TH AVE NE	Residential	1953	1967
188	003-133024120005	1380 69TH AVE NE	Residential	1953	1967
189	003-133024120007	1400 69TH AVE NE	Residential	1953	1967
190	003-133024120008	1390 69TH AVE NE	Residential	1953	1967
191	003-133024120011	1320 69TH AVE NE	Residential	1950	1967
192	003-133024120012	1330 69TH AVE NE	Residential	1950	1967
193	003-133024120013	1340 69TH AVE NE	Residential	1960	1967
194	003-133024120014	1350 69TH AVE NE	Residential	1959	1967
195	003-133024120017	6850 SIVERTS LN NE	Residential	1959	1986
196	003-133024120018	6840 SIVERTS LN NE	Residential	1981	1986
197	003-133024120019	6860 SIVERTS LN NE	Residential	1974	1986
198	003-133024120023	6865 SIVERTS LN NE	Residential	1983	1986
199	003-133024120024	1360 69TH AVE NE	Residential	1953	1967
200	003-133024130003	1489 MISSISSIPPI ST NE	Residential	1958	1960
201	003-133024130006	1465 MISSISSIPPI ST NE	Residential	1947	1960
202	003-133024130007	1439 MISSISSIPPI ST NE	Residential	1919	1960
203	003-133024130009	6581 CENTRAL AVE NE	Residential	1919	1961
204	003-133024130010	1340 66TH AVE NE	Residential	1956	1960
205	003-133024130011	1328 66TH AVE NE	Residential	1955	1960
206	003-133024130012	1316 66TH AVE NE	Residential	1954	1960
207	003-133024130016	1388 66TH AVE NE	Residential	1954	1960
208	003-133024130020	1341 MISSISSIPPI ST NE	Residential	1959	1960
209	003-133024130022	6519 CENTRAL AVE NE	Commercial	1950	1961
210	003-133024130026	1479 MISSISSIPPI ST NE	Residential	1950	1960
211	003-133024130029	1399 66TH AVE NE	Residential	1959	1960
212	003-133024130030	1387 66TH AVE NE	Residential	1954	1960
213	003-133024130031	1375 66TH AVE NE	Residential	1954	1960
214	003-133024130032	1363 66TH AVE NE	Residential	1954	1960
215	003-133024130033	1351 66TH AVE NE	Residential	1954	1960

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Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
216	003-133024130034	1339 66TH AVE NE	Residential	1959	1960
217	003-133024130035	1327 66TH AVE NE	Residential	1954	1960
218	003-133024130036	1315 66TH AVE NE	Residential	1954	1960
219	003-133024130037	6633 CENTRAL AVE NE	Residential	1954	1961
220	003-133024130038	6617 CENTRAL AVE NE	Residential	1954	1961
221	003-133024130039	6601 CENTRAL AVE NE	Residential	1954	1961
222	003-133024130047	6525 CENTRAL AVE NE	Commercial	1947	1961
223	003-133024130052	6537 CENTRAL AVE NE	Residential	1947	1961
224	003-133024130092	1381 MISSISSIPPI ST NE	Residential	1938	1960
225	003-133024130094	1415 MISSISSIPPI ST NE	Residential	1930	1960
226	003-133024130095		Exempt	(1)	1984
227	003-133024130101		Exempt	(1)	1984
*	003-133024130105		Exempt	(1)	1984
229	003-133024130109	1376 66TH AVE NE	Residential	1954	1960
230	003-133024130112	1400 66TH AVE NE	Residential	1954	1960
231	003-133024140001	1610 66TH AVE NE	Residential	1954	1960
232	003-133024140005	6531 MCKINLEY ST NE	Residential	1934	1960
233	003-133024140014	1645 MISSISSIPPI ST NE	Residential	1939	1960
234	003-133024140017	1621 66 1/2 AVE NE	Residential	1958	1960
235	003-133024140018	1631 66 1/2 AVE NE	Residential	1953	1960
236	003-133024140019	1630 66 1/2 AVE NE	Residential	1953	1960
237	003-133024140020	6630 STINSON BLVD NE	Residential	1956	1960
238	003-133024140021	6620 STINSON BLVD NE	Residential	1953	1960
239	003-133024140022	6610 STINSON BLVD NE	Residential	1953	1960
240	003-133024140023	1631 66TH AVE NE	Residential	1953	1960
241	003-133024140024	1630 66TH AVE NE	Residential	1953	1960
242	003-133024140025	6560 STINSON BLVD NE	Residential	1953	1960
243	003-133024140027	6540 STINSON BLVD NE	Residential	1930	1960
244	003-133024140032	1610 66 1/2 AVE NE	Residential	1959	1960
245	003-133024140033	6631 MCKINLEY ST NE	Residential	1958	1960
246	003-133024140034	6621 MCKINLEY ST NE	Residential	1955	1960
247	003-133024140036	1611 66TH AVE NE	Residential	1954	1960
248	003-133024140038	6610 MCKINLEY ST NE	Residential	1955	1960
249	003-133024140039	6620 MCKINLEY ST NE	Residential	1955	1960
250	003-133024140040	6630 MCKINLEY ST NE	Residential	1954	1960
251	003-133024140041	6640 MCKINLEY ST NE	Residential	1955	1960
252	003-133024140044		Exempt	(1)	1960
253	003-133024140060	6600 FRIDLEY ST NE	Residential	1947	1960
254	003-133024140065	6645 ANOKA ST NE	Residential	1948	1960
255	003-133024140075	6611 ARTHUR ST NE	Residential	1948	1960
256	003-133024140077	6645 ARTHUR ST NE	Residential	1935	1960
257	003-133024140082	6524 ANOKA ST NE	Residential	1955	1960
258	003-133024140083	1535 MISSISSIPPI ST NE	Residential	1942	1960

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Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
259	003-133024140084	1501 MISSISSIPPI ST NE	Residential	1928	1960
260	003-133024140086	6529 ARTHUR ST NE	Residential	1959	1960
261	003-133024140088	6545 ARTHUR ST NE	Residential	1959	1960
262	003-133024140089	6553 ARTHUR ST NE	Residential	1959	1960
263	003-133024140090	6561 ARTHUR ST NE	Residential	1956	1960
264	003-133024140092	6583 ARTHUR ST NE	Residential	1941	1960
265	003-133024140093	6587 ARTHUR ST NE	Residential	(1)	1960
266	003-133024140097	6550 FRIDLEY ST NE	Residential	1959	1960
267	003-133024140102	6523 ANOKA ST NE	Residential	1950	1960
268	003-133024140105	6563 ANOKA ST NE	Residential	1948	1960
269	003-133024140106	6575 ANOKA ST NE	Residential	1950	1960
270	003-133024140108	6589 FRIDLEY ST NE	Residential	1957	1960
271	003-133024140110	6563 FRIDLEY ST NE	Residential	1957	1960
272	003-133024140128	6562 ANOKA ST NE	Residential	1942	1960
273	003-133024140130	6544 ANOKA ST NE	Residential	1941	1960
274	003-133024210002		Exempt	(1)	1961
275	003-133024210003	6801 CHANNEL RD NE	Residential	1953	1955
276	003-133024210004		Exempt	(1)	1961
277	003-133024210007	6735 CHANNEL RD NE	Residential	1953	1955
278	003-133024210008	6725 CHANNEL RD NE	Residential	1953	1955
279	003-133024210009	6715 CHANNEL RD NE	Residential	1951	1955
280	003-133024210010	6709 CHANNEL RD NE	Residential	1951	1955
281	003-133024210013		Industrial	(1)	NS
282	003-133024210013		Industrial	(1)	NS
283	003-133024210014	6899 CHANNEL RD NE	Residential	1953	1955
284	003-133024210015		Exempt	(1)	1955
285	003-133024210018		Industrial	(1)	NS
286	003-133024210018		Industrial	(1)	NS
287	003-133024210020		Exempt	(1)	1955
288	003-133024210021		Exempt	(1)	1955
289	003-133024210024	6805 CHANNEL RD NE	Residential	1948	1955
290	003-133024210026	6825 CHANNEL RD NE	Residential	1948	1955
291	003-133024210028	6875 CHANNEL RD NE	Residential	1940	1955
292	003-133024210036	6870 CHANNEL RD NE	Residential	1951	1955
293	003-133024210037	6864 CHANNEL RD NE	Residential	1948	1955
294	003-133024210038	6854 CHANNEL RD NE	Residential	1941	1955
295	003-133024210040	6846 CHANNEL RD NE	Residential	1940	1955
296	003-133024210041	6830 CHANNEL RD NE	Residential	1946	1955
297	003-133024210042	6816 CHANNEL RD NE	Residential	1947	1955
298	003-133024210043	6810 CHANNEL RD NE	Residential	1945	1955
299	003-133024210044	6800 CHANNEL RD NE	Residential	1953	1955
300	003-133024210046	6774 CHANNEL RD NE	Residential	1940	1955
301	003-133024210049	6710 CHANNEL RD NE	Residential	1940	1955

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Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
302	003-133024210050	6831 HIGHWAY 65 NE	Commercial		1981
303	003-133024210056	6881 HIGHWAY 65 NE	Residential	1968	1981
304	003-133024210059	6875 HIGHWAY 65 NE	Commercial	1961	1981
305	003-133024230003	6553 OAKLEY DR NE	Residential	1950	1956
306	003-133024230005	1001 MISSISSIPPI ST NE	Residential	1947	1955
307	003-133024230006	969 MISSISSIPPI ST NE	Residential	1947	1956
308	003-133024230008	6535 OAKLEY DR NE	Residential	1954	1956
309	003-133024230009	6558 OAKLEY DR NE	Residential	1946	1956
310	003-133024230010	6550 OAKLEY DR NE	Residential	1946	1956
311	003-133024230011	6542 OAKLEY DR NE	Residential	1948	1956
312	003-133024230014	945 MISSISSIPPI ST NE	Residential	1945	1956
313	003-133024230015	925 MISSISSIPPI ST NE	Residential	1950	1956
314	003-133024230016	935 MISSISSIPPI ST NE	Residential	1947	1956
315	003-133024230017	931 MISSISSIPPI ST NE	Residential	1940	1956
316	003-133024230018	1051 67TH AVE NE	Residential	1945	1986
317	003-133024230034	6542 BROOKVIEW DR NE	Residential	1948	1956
318	003-133024230035	6554 BROOKVIEW DR NE	Residential	1947	1956
319	003-133024230036	6566 BROOKVIEW DR NE	Residential	1947	1956
320	003-133024230039	6606 BROOKVIEW DR NE	Residential	1948	1956
321	003-133024230060	953 MISSISSIPPI ST NE	Residential	1947	1956
322	003-133024230062	1050 67TH AVE NE	Residential	1985	1986
323	003-133024230063	1060 67TH AVE NE	Residential	1985	1986
324	003-133024230067	6770 BROOKVIEW DR NE	Residential	1985	1986
325	003-133024230071	6565 OAKLEY DR NE	Exempt	(1)	1956
326	003-133024230073	1027 MISSISSIPPI ST NE	Residential	1947	1955
327	003-133024240005	6621 LUCIA LN NE	Residential	1947	1955
328	003-133024240006	6631 LUCIA LN NE	Residential	1954	1955
329	003-133024240007	6680 CENTRAL AVE NE	Residential	1951	1961
330	003-133024240008	6676 CENTRAL AVE NE	Residential	1946	1961
331	003-133024240009	6634 CENTRAL AVE NE	Residential	(1)	1961
332	003-133024240010	6651 CHANNEL RD NE	Residential	1954	1955
333	003-133024240012	6640 CENTRAL AVE NE	Residential	1951	1961
334	003-133024240013	6616 CENTRAL AVE NE	Residential	1955	1961
335	003-133024240014	6619 CHANNEL RD NE	Residential	1953	1955
336	003-133024240015	6609 CHANNEL RD NE	Residential	1953	1955
337	003-133024240016	6599 CHANNEL RD NE	Residential	1954	1962
338	003-133024240017	6600 CENTRAL AVE NE	Residential	1955	1961
339	003-133024240018	6588 CENTRAL AVE NE	Residential	1955	1961
340	003-133024240019	6580 CENTRAL AVE NE	Residential	1957	1961
341	003-133024240020	6572 CENTRAL AVE NE	Residential	1955	1961
342	003-133024240021	6701 CHANNEL RD NE	Residential	1949	1955
343	003-133024240022	6675 CHANNEL RD NE	Residential	1954	1955
344	003-133024240023	6631 CHANNEL RD NE	Residential	1952	1955

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Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
345	003-133024240026	6645 LUCIA LN NE	Residential	1947	1955
346	003-133024240028		Exempt	(1)	1955
347	003-133024240029	6640 LUCIA LN NE	Residential	1950	1955
348	003-133024240030	6630 LUCIA LN NE	Residential	1950	1955
349	003-133024240031	6620 LUCIA LN NE	Residential	1949	1955
350	003-133024240034	6670 CHANNEL RD NE	Residential	1954	1955
351	003-133024240035	6648 CHANNEL RD NE	Residential	1937	1955
352	003-133024240036	6630 CHANNEL RD NE	Residential	1940	1955
353	003-133024240079			(1)	1955
354	003-133024240083		Residential	(1)	1955
355	003-133024240084	6540 LUCIA LN NE	Residential	1952	1955
356	003-133024240089	6676 CHANNEL RD NE	Residential	1940	1955
357	003-133024240106	6625 CHANNEL RD NE	Residential	1952	1955
358	003-133024240111	6610 CHANNEL RD NE	Residential	1935	1955
359	003-133024310004	6435 HIGHWAY 65 NE	Residential	1940	1957
360	003-133024310007	6440 DELLWOOD DR NE	Residential	1946	1955
361	003-133024310009	6452 DELLWOOD DR NE	Residential	1950	1955
362	003-133024310010	1150 MISSISSIPPI ST NE	Residential	1949	1955
363	003-133024310014	6428 DELLWOOD DR NE	Residential	1951	1955
364	003-133024310018	6449 PIERCE ST NE	Residential	1952	1955
365	003-133024310019	6435 PIERCE ST NE	Residential	1954	1955
366	003-133024310020	6411 PIERCE ST NE	Residential	1954	1955
367	003-133024310021	6423 PIERCE ST NE	Residential	1952	1955
368	003-133024310035		Exempt	(1)	1955
369	003-133024310036	1200 MISSISSIPPI ST NE	Residential	1950	1955
370	003-133024310037	1210 MISSISSIPPI ST NE	Residential	1952	1955
371	003-133024310038	1220 MISSISSIPPI ST NE	Residential	1951	1955
372	003-133024310039	6448 PIERCE ST NE	Residential	1953	1955
373	003-133024310040	6436 PIERCE ST NE	Residential	1951	1955
374	003-133024310041	6424 PIERCE ST NE	Residential	1954	1955
375	003-133024310052	6301 DELLWOOD DR NE	Residential	1951	1955
376	003-133024310056	6367 DELLWOOD DR NE	Residential	1954	1955
377	003-133024310057	6379 DELLWOOD DR NE	Residential	1954	1955
378	003-133024310059	6401 DELLWOOD DR NE	Residential	1951	1955
379	003-133024310060	6413 DELLWOOD DR NE	Residential	1953	1955
380	003-133024310061	6425 DELLWOOD DR NE	Residential	1953	1955
381	003-133024310062	6437 DELLWOOD DR NE	Residential	1950	1955
382	003-133024310063	6449 DELLWOOD DR NE	Residential	1952	1955
383	003-133024310066	6378 DELLWOOD DR NE	Residential	1954	1955
384	003-133024310072	6301 CENTRAL AVE NE	Commercial	(1)	1956
385	003-133024310073	6319 CENTRAL AVE NE	Commercial	(1)	1956
386	003-133024310074		Commercial	(1)	1957
387	003-133024310079	6490 CENTRAL AVE NE	Commercial	1955	1956

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Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
388	003-133024310080	1282 MISSISSIPPI ST NE	Exempt	(1)	1955
389	003-133024310081	6300 PIERCE ST NE	Residential	1954	1955
390	003-133024310084	1132 MISSISSIPPI ST NE	Residential	1947	1955
391	003-133024310086		Exempt	(1)	1955
392	003-133024320005	6447 TAYLOR ST NE	Residential	1952	1955
393	003-133024320011	952 MISSISSIPPI ST NE	Residential	1947	1956
394	003-133024320012	968 MISSISSIPPI ST NE	Residential	1952	1956
395	003-133024320013	980 MISSISSIPPI ST NE	Residential	1954	1956
396	003-133024320014	990 MISSISSIPPI ST NE	Residential	1955	1956
397	003-133024320015	1010 MISSISSIPPI ST NE	Residential	1948	1955
398	003-133024320017	1051 64TH AVE NE	Residential	1954	1955
399	003-133024320023	6401 BAKER AVE NE	Residential	1945	1955
400	003-133024320024	6425 BAKER AVE NE	Residential	1949	1955
401	003-133024320025	6429 BAKER AVE NE	Residential	1951	1955
402	003-133024320026	6431 BAKER AVE NE	Residential	1949	1955
403	003-133024320027	6437 BAKER AVE NE	Residential	1948	1955
404	003-133024320028	6475 ABLE ST NE	Residential	1947	1955
405	003-133024320030	932 MISSISSIPPI ST NE	Residential	1948	1956
406	003-133024320033	6440 BAKER AVE NE	Residential	1947	1955
407	003-133024320035	6426 BAKER AVE NE	Residential	1948	1955
408	003-133024320036	6424 BAKER AVE NE	Residential	1949	1955
409	003-133024320038	6410 BAKER AVE NE	Residential	1951	1955
410	003-133024320040	6396 BAKER AVE NE	Residential	1953	1955
411	003-133024320041	6382 BAKER AVE NE	Residential	1953	1955
412	003-133024320042	6362 BAKER AVE NE	Residential	1953	1955
413	003-133024320043	6342 BAKER AVE NE	Residential	1951	1955
414	003-133024320055	6433 ABLE ST NE	Residential	1947	1955
415	003-133024320056	6445 ABLE ST NE	Residential	1947	1955
416	003-133024320062	1054 64TH AVE NE	Residential	1954	1955
417	003-133024320064	1026 64TH AVE NE	Residential	1954	1955
418	003-133024320067	6347 BAKER AVE NE	Residential	1954	1955
419	003-133024320068	6315 BAKER AVE NE	Residential	1954	1955
420	003-133024320070	6310 CENTRAL AVE NE	Commercial	1955	1956
421	003-133024320071	6389 BAKER AVE NE	Residential	1952	1955
422	003-133024320072	6399 BAKER AVE NE	Residential	1950	1955
423	003-133024330009	6300 BAKER AVE NE	Residential	1948	1955
424	003-133024330011		Residential	(1)	1955
425	003-133024330020		Residential	(1)	1955
426	003-133024330022		Residential	(1)	1955
427	003-133024340027		Commercial	(1)	1958
428	003-133024340029	1200 MOORE LAKE DR E	Commercial	(1)	1962
429	003-133024340031		Exempt	(1)	1955
430	003-133024340032		Commercial	(1)	1955

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Location of Probable Wells

Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
431	003-133024340034		Exempt	(1)	1955
432	003-133024410004	1621 RICE CREEK RD NE	Residential	1950	1961
433	003-133024410005	1627 RICE CREEK RD NE	Residential	1960	1961
434	003-133024410006	1631 RICE CREEK RD NE	Residential	1954	1961
435	003-133024410008			(1)	1960
436	003-133024410081	1501 RICE CREEK RD NE	Residential	1945	1961
437	003-133024410083	1668 MISSISSIPPI ST NE	Residential	1948	1960
438	003-133024420002	6446 ARTHUR ST NE	Residential	1970	1973
439	003-133024420003	6420 ARTHUR ST NE	Residential	1971	1973
440	003-133024420004	1489 64TH AVE NE	Residential	1958	1962
441	003-133024420005	1464 MISSISSIPPI ST NE	Residential	1947	1960
442	003-133024420006	1487 64TH AVE NE	Residential	1957	1962
443	003-133024420007	1442 MISSISSIPPI ST NE	Residential	1947	1960
444	003-133024420009	1453 64TH AVE NE	Residential	1960	1962
445	003-133024420010	1443 64TH AVE NE	Residential	1960	1962
446	003-133024420011	1428 MISSISSIPPI ST NE	Residential	1942	1960
447	003-133024420013	1400 MISSISSIPPI ST NE	Residential	1948	1960
448	003-133024420014	1403 64TH AVE NE	Residential	1948	1962
449	003-133024420015	1376 MISSISSIPPI ST NE	Residential	1944	1960
450	003-133024420016	1385 64TH AVE NE	Residential	1942	1962
451	003-133024420017	1358 MISSISSIPPI ST NE	Residential	(1)	1960
452	003-133024420018	1373 64TH AVE NE	Residential	1942	1962
453	003-133024420019	1340 MISSISSIPPI ST NE	Residential	1948	1960
454	003-133024420020	1314 MISSISSIPPI ST NE	Residential	1948	1960
455	003-133024420023	6421 CENTRAL AVE NE	Residential	1944	1956
456	003-133024420024	6401 CENTRAL AVE NE	Residential	1942	1956
457	003-133024420030	1466 64TH AVE NE	Residential	1960	1962
458	003-133024420031	1456 64TH AVE NE	Residential	1960	1962
459	003-133024420036	1426 64TH AVE NE	Residential	1944	1962
460	003-133024420037	1425 RICE CREEK RD NE	Residential	1959	1961
461	003-133024420039		Exempt	(1)	1961
462	003-133024420040	1384 64TH AVE NE	Residential	1948	1962
463	003-133024420043		Exempt	(1)	1961
464	003-133024420045		Exempt	(1)	1961
465	003-133024420048	1340 64TH AVE NE	Residential	1947	1961
466	003-133024420049	6381 CENTRAL AVE NE	Exempt	(1)	1956
467	003-133024420055	1482 MISSISSIPPI ST NE	Residential	1952	1960
468	003-133024420058	1476 64TH AVE NE	Residential	1960	1962
469	003-133024420059	1490 64TH AVE NE	Residential	1950	1962
*	003-133024430001	1420 RICE CREEK RD NE	Residential	1938	1961
*	003-133024430002	1400 RICE CREEK RD NE	Residential	1952	1961
472	003-133024430003	1370 RICE CREEK RD NE	Residential	1938	1961
473	003-133024430005	6283 CENTRAL AVE NE	Residential	1938	1962

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Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
474	003-133024430006	6271 CENTRAL AVE NE	Residential	1931	1962
475	003-133024430007	6245 CENTRAL AVE NE	Residential	1957	1962
476	003-133024430014	6274 BEN MOORE DR NE	Residential	1948	1970
477	003-133024430029	6283 KERRY LN NE	Residential	1938	1970
478	003-133024430060	6096 WOODY LN NE	Residential	1954	1958
479	003-133024430062	6128 WOODY LN NE	Residential	1957	1958
480	003-133024430065	6133 WOODY LN NE	Residential	1953	1958
481	003-133024430067	6127 WOODY LN NE	Residential	1957	1958
482	003-133024430068	6125 WOODY LN NE	Residential	1948	1958
483	003-133024430070	6105 WOODY LN NE	Residential	1953	1958
484	003-133024430071	6095 WOODY LN NE	Residential	1954	1958
485	003-133024430073	6229 CENTRAL AVE NE	Residential	1945	1962
486	003-133024430087	1450 RICE CREEK RD NE	Residential	1950	1961
487	003-133024440001	1626 RICE CREEK RD NE	Residential	1949	1961
488	003-133024440002	1632 RICE CREEK RD NE	Residential	(1)	1961
*	003-133024440005	1540 RICE CREEK RD NE	Residential	1925	1961
490	003-133024440007	1520 RICE CREEK RD NE	Residential	1952	1961
491	003-133024440008	1530 RICE CREEK RD NE	Residential	1945	1961
492	003-133024440056	6184 STINSON BLVD NE	Residential	(1)	1961
493	003-133024440067	1591 WOODSIDE CT NE	Residential	(1)	1975
494	003-133024440085		Exempt	(1)	1975
495	003-133024440107		Exempt	(1)	1975
496	003-143024120001	490 69TH AVE NE	Residential	1966	1982
497	003-143024130001	537 66TH AVE NE	Residential	1954	1956
498	003-143024130002	543 66TH AVE NE	Residential	1954	1956
499	003-143024130005	542 66TH AVE NE	Residential	1954	1956
500	003-143024130006	532 66TH AVE NE	Residential	1954	1956
501	003-143024130007	615 MISSISSIPPI ST NE	Exempt	(1)	1956
502	003-143024130013	503 MISSISSIPPI ST NE	Exempt	1949	1956
503	003-143024130014	501 MISSISSIPPI ST NE	Exempt	(1)	1956
504	003-143024130015	525 66TH AVE NE	Residential	1952	1956
505	003-143024130016	515 66TH AVE NE	Residential	1952	1956
506	003-143024130017	505 66TH AVE NE	Residential	1952	1956
507	003-143024130018	522 66TH AVE NE	Residential	1953	1956
508	003-143024130019	512 66TH AVE NE	Residential	1952	1956
509	003-143024130020	502 66TH AVE NE	Residential	1953	1956
510	003-143024130045		Exempt	(1)	1955
511	003-143024140050	6524 JACKSON ST NE	Residential	1915	1955
512	003-143024140085	6520 ABLE ST NE	Residential	1950	1959
513	003-143024210002	580 69TH AVE NE	Residential	1968	1982
514	003-143024210003	570 RICE CREEK BLVD NE	Residential	1964	1965
515	003-143024210005	550 RICE CREEK BLVD NE	Residential	1962	1965
516	003-143024210007	530 RICE CREEK BLVD NE	Residential	1964	1965

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Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
517	003-143024210008	520 RICE CREEK BLVD NE	Residential	1964	1965
518	003-143024210011	480 RICE CREEK BLVD NE	Residential	1964	1965
519	003-143024210016	561 RICE CREEK BLVD NE	Residential	1964	1965
520	003-143024210021	521 RICE CREEK BLVD NE	Residential	1964	1965
521	003-143024210025	6875 UNIVERSITY AVE NE	Exempt	(1)	1961
522	003-143024220042	295 RICE CREEK BLVD NE	Residential	1960	1965
523	003-143024230002	205 MISSISSIPPI ST NE	Exempt	(1)	1956
524	003-143024230003		Exempt	(1)	1956
525	003-143024230004	6501 MAIN ST NE	Residential	1951	1957
526	003-143024230005	6525 MAIN ST NE	Residential	1953	1957
527	003-143024230006		Exempt	(1)	1957
528	003-143024230008		Exempt	(1)	1957
529	003-143024230085		Exempt	(1)	1957
530	003-143024230092		Exempt	(1)	1956
531	003-143024230094		Exempt	(1)	1956
532	003-143024240001	495 MISSISSIPPI ST NE	Residential	1952	1956
533	003-143024240002	465 MISSISSIPPI ST NE	Residential	1950	1956
534	003-143024240003	431 MISSISSIPPI ST NE	Residential	1948	1956
535	003-143024240005	411 MISSISSIPPI ST NE	Residential	1948	1956
536	003-143024240006	401 MISSISSIPPI ST NE	Residential	1942	1956
537	003-143024240008	365 MISSISSIPPI ST NE	Residential	1942	1956
538	003-143024240009	355 MISSISSIPPI ST NE	Commercial	(1)	1956
539	003-143024240012	381 66TH AVE NE	Residential	1954	1956
540	003-143024240013	377 66TH AVE NE	Residential	1954	1956
541	003-143024240014	375 66TH AVE NE	Residential	1953	1956
542	003-143024240017	369 66TH AVE NE	Residential	1953	1956
543	003-143024240020	365 66TH AVE NE	Residential	1952	1956
544	003-143024240021	363 66TH AVE NE	Residential	1952	1956
545	003-143024240022	361 66TH AVE NE	Residential	1950	1956
546	003-143024240023	359 66TH AVE NE	Residential	1952	1956
547	003-143024240024	357 66TH AVE NE	Residential	1952	1956
548	003-143024240025	355 66TH AVE NE	Residential	1952	1956
549	003-143024240026	392 66TH AVE NE	Residential	1953	1956
550	003-143024240027	390 66TH AVE NE	Residential	1952	1956
551	003-143024240028	388 66TH AVE NE	Residential	1952	1956
552	003-143024240029	384 66TH AVE NE	Residential	1953	1956
553	003-143024240030	380 66TH AVE NE	Residential	1953	1956
554	003-143024240031	378 66TH AVE NE	Residential	1953	1956
555	003-143024240033	374 66TH AVE NE	Residential	1951	1956
556	003-143024240034	372 66TH AVE NE	Residential	1951	1956
557	003-143024240035	370 66TH AVE NE	Residential	1951	1956
558	003-143024240036	368 66TH AVE NE	Residential	1952	1956
559	003-143024240055	351 67TH AVE NE	Residential	1946	1954

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Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
560	003-143024240097	371 66TH AVE NE	Residential	1954	1956
561	003-143024240098	367 66TH AVE NE	Residential	1952	1956
*	003-143024310001		Exempt	(1)	1956
563	003-143024310003	410 MISSISSIPPI ST NE	Exempt	(1)	1956
564	003-143024310067	460 MISSISSIPPI ST NE APT 101	Residential	(1)	1956
565	003-143024310082		Exempt	(1)	1955
566	003-143024310083		Exempt	(1)	1955
567	003-143024310084		Exempt	(1)	1955
568	003-143024310085		Exempt	(1)	1955
569	003-143024310087		Exempt	(1)	1955
570	003-143024310088		Exempt	(1)	1955
571	003-143024310089		Exempt	(1)	1955
572	003-143024310090		Exempt	(1)	1955
573	003-143024310091		Exempt	(1)	1955
574	003-143024310092		Exempt	(1)	1955
575	003-143024310093	6431 UNIVERSITY AVE NE	Exempt	(1)	1955
576	003-143024310095		Exempt	(1)	1955
577	003-143024310096		Exempt	(1)	1955
578	003-143024310098	6341 UNIVERSITY AVE NE	Exempt	(1)	1962
579	003-143024310099		Exempt	(1)	1955
580	003-143024310100		Exempt	(1)	1955
581	003-143024320055		Residential	(1)	1955
582	003-143024320060	6390 UNIVERSITY AVE NE	Exempt	(1)	1954
583	003-143024320188	6490 UNIVERSITY AVE NE	Exempt	(1)	1954
584	003-143024330016	6261 RAINBOW DR NE	Residential	1953	1954
585	003-143024330041	6200 SUNRISE DR NE	Residential	1953	1954
586	003-143024330042	6210 SUNRISE DR NE	Residential	1953	1954
587	003-143024330043	6220 SUNRISE DR NE	Residential	1952	1954
588	003-143024330044	6230 SUNRISE DR NE	Residential	1952	1954
589	003-143024330045	6240 SUNRISE DR NE	Residential	1952	1954
590	003-143024330055	6250 RAINBOW DR NE	Residential	1953	1954
591	003-143024340005		Commercial	(1)	1955
592	003-143024340014		Exempt	(1)	1955
593	003-143024340088		Exempt	(1)	1955
594	003-143024340089		Exempt	(1)	1955
595	003-143024410055	890 MISSISSIPPI ST NE	Residential	1942	1956
596	003-143024410058	6452 ABLE ST NE	Residential	1948	1955
597	003-143024410062	6405 VAN BUREN ST NE	Residential	1950	1955
598	003-143024410063	6415 VAN BUREN ST NE	Residential	1947	1955
599	003-143024410065	6451 VAN BUREN ST NE	Residential	1947	1955
600	003-143024410067	870 MISSISSIPPI ST NE	Residential	1947	1956
601	003-143024410068	840 MISSISSIPPI ST NE	Residential	1948	1956
602	003-143024410069	6452 VAN BUREN ST NE	Residential	1951	1955

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Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
603	003-143024410071	6414 VAN BUREN ST NE	Residential	1946	1955
604	003-143024410079	810 MISSISSIPPI ST NE	Residential	1939	1956
605	003-143024410111	6377 VAN BUREN ST NE	Residential	1950	1955
606	003-143024410113	776 MISSISSIPPI ST NE	Residential	1941	1956
607	003-143024410115	772 MISSISSIPPI ST NE	Residential	1951	1956
608	003-143024420002	510 MISSISSIPPI ST NE	Residential	1945	1956
609	003-143024420124	500 MISSISSIPPI ST NE	Residential	1940	1956
610	003-143024420127	680 MISSISSIPPI ST NE	Exempt	(1)	1956
611	003-143024430019		Exempt	1994	1955
612	003-143024430020		Exempt	(1)	1955
613	003-143024430021		Exempt	(1)	1955
614	003-143024430022		Exempt	(1)	1955
615	003-143024430023		Exempt	(1)	1955
616	003-143024430024		Exempt	(1)	1955
617	003-143024430025		Exempt	(1)	1955
618	003-143024430026		Exempt	(1)	1955
*	003-143024430027		Exempt	(1)	1955
620	003-143024430028		Exempt	(1)	1955
621	003-143024430029		Exempt	(1)	1955
622	003-143024430030		Exempt	(1)	1955
623	003-143024430031		Exempt	(1)	1955
624	003-143024430032		Exempt	1970	1955
625	003-143024430033		Exempt	1975	1955
626	003-143024430034		Exempt	(1)	1955
627	003-143024430035		Exempt	(1)	1955
628	003-143024430036		Exempt	(1)	1955
629	003-143024430037		Exempt	(1)	1955
630	003-143024430038		Exempt	(1)	1955
631	003-143024430039		Exempt	(1)	1955
632	003-143024430040		Exempt	(1)	1955
633	003-143024430041		Exempt	1970	1955
*	003-143024430042		Exempt	(1)	1955
*	003-143024430043		Exempt	(1)	1955
*	003-143024440027		Exempt	(1)	1955
637	003-143024440049		Exempt	(1)	1955
638	003-143024440050		Exempt	(1)	1955
639	003-143024440051		Exempt	(1)	1955
640	003-143024440052		Exempt	(1)	1955
641	003-143024440053		Exempt	(1)	1955
642	003-143024440053		Exempt	(1)	1955
*	003-143024440053		Exempt	(1)	1955
644	003-143024440054		Exempt	(1)	1955
645	003-143024440055		Exempt	(1)	1955

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Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
646	003-143024440056		Exempt	(1)	1955
647	003-143024440057		Exempt	(1)	1955
648	003-143024440058		Exempt	(1)	1955
649	003-143024440060	6100 West Moore Lake Dr NE	Exempt	1965	1955
650	003-143024440061		Exempt	(1)	1955
651	003-143024440062		Exempt	(1)	1955
652	003-143024440063		Exempt	(1)	1955
653	003-143024440064		Exempt	(1)	1955
654	003-143024440065		Exempt	(1)	1955
655	003-143024440066		Exempt	(1)	1955
656	003-143024440067		Exempt	(1)	1955
657	003-153024110028		Exempt	(1)	1957
658	003-153024110040		Exempt	(1)	1959
659	003-153024120019	6817 HICKORY ST NE	Residential	1954	1955
660	003-153024120021	6809 HICKORY ST NE	Residential	1953	1955
661	003-153024120023	6811 E RIVER RD	Residential	1928	1956
662	003-153024120024	44 LOCKE LAKE RD NE	Residential	1950	1957
663	003-153024120026	6801 HICKORY ST NE	Residential	1952	1955
664	003-153024120069	6745 E RIVER RD	Exempt	(1)	1956
665	003-153024120071	54 LOCKE LAKE RD NE	Residential	1950	1957
666	003-153024130010		Exempt	(1)	1956
667	003-153024130016	6675 E RIVER RD	Residential	1941	1956
668	003-153024140048		Exempt	(1)	1955
669	003-153024140049		Exempt	(1)	1955
670	003-153024140083		Exempt	(1)	1959
671	003-233024110002	6100 MOORE LAKE DR W	Exempt	(1)	1955
672	003-233024110003	6000 MOORE LAKE DR W	Exempt	(1)	1955
673	003-233024120001		Exempt	(1)	1955
674	003-233024120002		Exempt	(1)	1955
675	003-233024120003		Exempt	(1)	1955
676	003-233024120004		Exempt	(1)	1955
677	003-233024120005	6085 7TH ST NE	Exempt	(1)	1955
678	003-233024120006		Exempt	(1)	1955
*	003-233024120007		Exempt	(1)	1955
*	003-233024120008		Exempt	(1)	1955
*	003-233024130080	5896 JEFFERSON ST NE	Residential	1962	1966
*	003-233024130087	5812 JEFFERSON ST NE	Residential	1956	1961
*	003-233024130116		Exempt	(1)	1961
*	003-233024130117		Exempt	(1)	1961
*	003-233024140020	5707 MOORE LAKE DR W	Exempt	(1)	1955
*	003-233024140021		Exempt	(1)	1961
*	003-233024140022		Exempt	(1)	1961
*	003-233024210089	6005 5TH ST NE	Residential	1928	1955

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Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
*	003-233024210091	6070 5TH ST NE	Residential	1948	1955
*	003-233024210092	6060 5TH ST NE	Residential	1952	1955
691	003-233024210104		Residential	(1)	1955
692	003-233024210110		Commercial	(1)	1961
693	003-233024210111	6061 UNIVERSITY AVE NE	Commercial	1957	1961
694	003-233024210112		Exempt	(1)	1961
695	003-233024240129	5801 6TH ST NE	Residential	1950	1958
696	003-243024110022	1521 FERNDALE AVE NE	Residential	1957	1961
697	003-243024110025	1511 FERNDALE AVE NE	Residential	1957	1961
698	003-243024110026	1505 FERNDALE AVE NE	Residential	1957	1961
699	003-243024110028	1568 FERNDALE AVE NE	Residential	1958	1961
700	003-243024110029	1560 FERNDALE AVE NE	Residential	1960	1961
701	003-243024110030	6040 BENJAMIN ST NE	Residential	1957	1961
702	003-243024110036	5928 OAKWOOD MNR NE	Residential	1940	1961
703	003-243024110045	5910 OAKWOOD MNR NE	Residential	1944	1961
*	003-243024110065	1540 FERNDALE AVE NE	Residential	1950	1961
705	003-243024110079	1561 FERNDALE AVE NE	Residential	1950	1961
706	003-243024120002	6005 GARDENA CIR NE	Residential	1960	1962
707	003-243024120012	1465 GARDENA AVE NE	Residential	1930	1961
708	003-243024120015	1423 GARDENA AVE NE	Residential	1939	1961
709	003-243024120016	1413 GARDENA AVE NE	Exempt	1940	1961
710	003-243024120019	1345 GARDENA AVE NE	Residential	1954	1961
711	003-243024120023	1329 GARDENA AVE NE	Residential	1929	1961
712	003-243024120030	1360 HILLCREST DR NE	Residential	1954	1958
713	003-243024120031	1358 HILLCREST DR NE	Residential	1954	1958
714	003-243024120033	1354 HILLCREST DR NE	Residential	1956	1958
715	003-243024120034	1352 HILLCREST DR NE	Residential	1957	1958
716	003-243024120036	1348 HILLCREST DR NE	Residential	1953	1958
717	003-243024120038	1344 HILLCREST DR NE	Residential	1955	1958
718	003-243024120039	1342 HILLCREST DR NE	Residential	1955	1958
719	003-243024120040	1340 HILLCREST DR NE	Residential	1954	1958
720	003-243024120041	1338 HILLCREST DR NE	Residential	1957	1958
721	003-243024120042	1336 HILLCREST DR NE	Residential	1953	1958
722	003-243024120044	1332 HILLCREST DR NE	Residential	1956	1958
723	003-243024120046	1328 HILLCREST DR NE	Residential	1955	1958
724	003-243024120048	1324 HILLCREST DR NE	Residential	1957	1958
725	003-243024120049	1322 HILLCREST DR NE	Residential	1952	1958
726	003-243024120050	1320 HILLCREST DR NE	Residential	1953	1958
727	003-243024120056	1345 HILLCREST DR NE	Residential	1955	1958
728	003-243024120057	1349 HILLCREST DR NE	Residential	1955	1958
729	003-243024120058	1351 HILLCREST DR NE	Residential	1956	1958
730	003-243024120060	1355 HILLCREST DR NE	Residential	1955	1958
731	003-243024120061	1357 HILLCREST DR NE	Residential	1956	1958

Appendix A
Location of Probable Wells

Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
732	003-243024120062	1359 HILLCREST DR NE	Residential	1954	1958
733	003-243024120063	6083 WOODY LN NE	Residential	1953	1958
734	003-243024120064	6075 WOODY LN NE	Residential	1952	1958
735	003-243024120065	6069 WOODY LN NE	Residential	1954	1958
736	003-243024120066	1313 HILLCREST DR NE	Residential	1950	1958
737	003-243024120067	1315 HILLCREST DR NE	Residential	1957	1958
738	003-243024120068	1317 HILLCREST DR NE	Residential	1950	1958
739	003-243024120069	1319 HILLCREST DR NE	Residential	1956	1958
740	003-243024120070	1321 HILLCREST DR NE	Residential	1954	1958
741	003-243024120071	1323 HILLCREST DR NE	Residential	1956	1958
742	003-243024120072	1325 HILLCREST DR NE	Residential	1953	1958
743	003-243024120074	1331 HILLCREST DR NE	Residential	1952	1958
744	003-243024120076	6076 WOODY LN NE	Residential	1955	1958
745	003-243024140002		Exempt	(1)	1961
746	003-243024210005	6028 CENTRAL AVE NE	Exempt	(1)	1958
747	003-243024210006		Exempt	(1)	1955
748	003-243024210047	6045 GARDENA LN NE		(1)	1962
749	003-243024210021		Residential	(1)	1955
750	003-243024210029	5947 CENTRAL AVE NE	Residential	1925	(1)
751	003-243024210030	5971 CENTRAL AVE NE	Residential	1940	(1)
752	003-243024210033	1306 HILLCREST DR NE	Residential	1954	1964
753	003-243024210044	6061 CENTRAL AVE NE	Residential	1949	1958
754	003-243024210046	6053 WOODY LN NE	Residential	1955	1958
755	003-243024210048	6067 CENTRAL AVE NE	Residential	1953	1958
756	003-243024240001	1251 GARDENA AVE NE	Residential	1931	1955
757	003-243024240019	1049 GARDENA AVE NE	Residential	1923	1955
758	003-243024240101	1207 GARDENA AVE NE	Residential	1953	1955

Appendix A
Location of Probable Wells

RAMSEY COUNTY PROPERTIES

Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
759	123-073023120003		Exempt	1990	(1)
760	123-073023220037	Pleasant View Dr	Residential	0(1)	(1)
761	123-073023220038	Bronson Dr	Residential	1940	1960
762	123-073023230003	Bronson Dr	Residential	1958	1960
763	123-073023230011	Pleasant View Dr	Residential	1953	1960
764	123-073023230012	Co. Road H2	Residential	1952	1960
765	123-073023310001	Silver Lake Rd	Residential	1956	1960
766	123-073023310002	Co. Road H2	Residential	1940	1960
767	123-073023310003	Co. Road H2	Residential	1941	1960
768	123-073023310004	Co. Road H2	Residential	1942	1960
769	123-073023310011	Knollwood Dr	Residential	1941	1960
770	123-073023310013	Knollwood Dr	Residential	1956	1960
771	123-073023310014	Woodale Dr	Residential	1953	1963
772	123-073023310017	Woodale Dr	Residential	1950	1961
773	123-073023310019	Woodale Dr	Residential	1942	1960
774	123-073023310020	Woodale Dr	Residential	1952	1960
775	123-073023310027	Co. Road H2	Residential	1947	1960
776	123-073023310028	Co. Road H2	Residential	1942	1960
777	123-073023310029	Knollwood Dr	Residential	1940	1960
778	123-073023310030	Knollwood Dr	Residential	1940	1960
779	123-073023310031	Knollwood Dr	Residential	1951	1960
780	123-073023310032	Knollwood Dr	Residential	1940	1960
781	123-073023310033	Knollwood Dr	Residential	1940	1960
782	123-073023310034	Knollwood Dr	Residential	1941	1960
783	123-073023310035	Woodale Dr	Residential	1960	1965
784	123-073023310040	Knollwood Dr	Residential	1953	1960
785	123-073023310041	Woodale Dr	Residential	1940	1961
786	123-073023310042	Woodale Dr	Residential	1954	1961
787	123-073023310043	Woodale Dr	Residential	1951	1960
788	123-073023310046	Woodale Dr	Residential	1941	1965
789	123-073023310047	Woodale Dr	Residential	1941	1965
790	123-073023310049	Knollwood Dr	Residential	1952	1960
791	123-073023320001	Co. Road H2	Residential	1930	1960
792	123-073023320008	Co. Road H2	Residential	1940	1960
793	123-073023320011	Woodale Dr	Residential	1956	1960
794	123-073023320012	Woodale Dr	Residential	1940	1960
795	123-073023320013	Woodale Dr	Residential	1940	1960
796	123-073023320018	Woodale Dr	Residential	1958	1960
797	123-073023320020	Co. Road H2	Residential	1941	1960
798	123-073023330001	Pleasant View Dr	Residential	1940	1960
799	123-073023330004	Pleasant View Dr	Residential	1943	1960
800	123-073023330005	Pleasant View Dr	Residential	1940	1960

Appendix A
Location of Probable Wells

Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
801	123-073023330006	Pleasant View Dr	Residential	1940	1960
802	123-073023330007	Pleasant View Dr	Residential	1940	1960
803	123-073023330008	Pleasant View Dr	Residential	1940	1960
804	123-073023330009	Pleasant View Dr	Residential	1940	1968
805	123-073023330010	Pleasant View Dr	Residential	1955	1968
806	123-073023330011	Pleasant View Dr	Residential	1940	1968
807	123-073023330012	Pleasant View Dr	Residential	1940	1968
808	123-073023330013	Pleasant View Dr	Residential	1941	1968
809	123-073023330015	Pleasant View Dr	Residential	1944	1968
810	123-073023330018	Woodale Dr	Residential	1941	1960
811	123-073023330019	Woodale Dr	Residential	1949	1960
812	123-073023330021	Pleasant View Dr	Residential	1940	1960
813	123-073023330022	Pleasant View Dr	Residential	1942	1960
814	123-073023330023	Pleasant View Dr	Residential	1940	1960
815	123-073023330024	Pleasant View Dr	Residential	1947	1960
816	123-073023330025	Pleasant View Dr	Residential	1940	1960
817	123-073023330027	Pleasant View Dr	Residential	1940	1968
818	123-073023330028	Pleasant View Dr	Residential	1955	1968
819	123-073023330029	Pleasant View Dr	Residential	1940	1968
820	123-073023330030	Pleasant View Dr	Residential	1962	1968
821	123-073023330036	Co. Road H2	Residential	1940	1960
822	123-073023330037	Co. Road H2	Residential	1941	1960
823	123-073023340002	Knollwood Dr	Residential	1940	1960
824	123-073023340004	Knollwood Dr	Residential	1952	1960
825	123-073023340005	Knollwood Dr	Residential	1948	1960
826	123-073023340006	Woodale Dr	Residential	1950	1960
827	123-073023340007	Woodale Dr	Residential	1940	1960
828	123-073023340008	Woodale Dr	Residential	1940	1960
829	123-073023340009	Woodale Dr	Residential	1947	1960
830	123-073023340012	Knollwood Dr	Residential	1940	1960
831	123-073023340013	Knollwood Dr	Residential	1940	1960
832	123-073023340014	Knollwood Dr	Residential	1953	1960
833	123-073023340015	Knollwood Dr	Residential	1941	1960
834	123-073023340016	Knollwood Dr	Residential	1940	1960
835	123-073023340018	Springview Ln	Residential	1948	1968
836	123-073023340019	Springview Ln	Residential	1950	1968
837	123-073023340020	Springview Ln	Residential	1960	1968
838	123-073023340021	Springview Ln	Residential	1941	1968
839	123-073023340022	Springview Ln	Residential	1941	1968
840	123-073023340025	Co. Road H	Residential	1941	1960
841	123-073023340026	Springview Ln	Residential	1943	1968
842	123-073023340027	Co. Road H	Residential	1942	1960
843	123-073023340030	Co. Road H	Residential	1953	1960

Appendix A
Location of Probable Wells

Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
844	123-073023340031	Knollwood Dr	Residential	1950	1960
845	123-073023340034	Co. Road H	Residential	1940	1960
846	123-073023340036	Silver Lake Rd	Residential	1942	1960
847	123-073023340037	Woodcrest Dr	Residential	1942	1960
848	123-073023340038	Woodcrest Dr	Residential	1940	1960
849	123-073023340039	Woodcrest Dr	Residential	1946	1960
850	123-073023340040	Woodcrest Dr	Residential	1948	1960
851	123-073023340041	Woodcrest Dr	Residential	1940	1960
852	123-073023340042	Knollwood Dr	Residential	1942	1960
853	123-073023340043	Knollwood Dr	Residential	1950	1960
854	123-073023340045	Co. Road H	Residential	1940	1960
855	123-073023340046	Co. Road H	Residential	1952	1960
856	123-073023340047	Co. Road H	Residential	1940	1960
857	123-073023340048	Co. Road H	Residential	1940	1960
858	123-073023340049	Co. Road H	Residential	1954	1960
859	123-073023340050	Co. Road H	Residential	1942	1960
860	123-073023340051	Co. Road H	Residential	1940	1960
861	123-073023340052	Silver Lake Rd	Residential	1949	1960
862	123-073023340055	Woodcrest Dr	Residential	1941	1960
863	123-073023340057	Springview Ln	Residential	1952	1968
864	123-073023410068	Co. Road H2	Residential	1941	1960
865	123-073023420062		Commercial	1973	1961
866	123-073023420070	Longview Dr	Residential	1900	1963
867	123-073023430034	Red Oak Dr	Residential	1958	1960
868	123-073023430035	Red Oak Dr	Residential	1958	1960
869	123-073023430036	Red Oak Dr	Residential	1958	1960
870	123-073023430037	Red Oak Dr	Residential	1958	1960
871	123-073023430040	Springview Ln	Residential	1956	1960
872	123-073023430041	Springview Ln	Residential	1956	1960
873	123-073023430042	Springview Ln	Residential	1956	1960
874	123-073023430043	Springview Ln	Residential	1956	1960
875	123-073023430044	Springview Ln	Residential	1956	1960
876	123-073023430045	Springview Ln	Residential	1956	1960
877	123-073023430046	Springview Ln	Residential	1956	1960
878	123-073023430047	Silver Lake Rd	Residential	1956	1960
879	123-073023430048	Silver Lake Rd	Residential	1957	1960
880	123-073023430049	Silver Lake Rd	Residential	1957	1960
881	123-073023430050	Silver Lake Rd	Residential	1957	1960
882	123-073023430051	Silver Lake Rd	Residential	1957	1960
883	123-073023430052	Silver Lake Rd	Residential	1956	1960
884	123-073023430053	Silver Lake Rd	Residential	1957	1960
885	123-073023430055	Woodcrest Dr	Residential	1956	1960
886	123-073023430056	Red Oak Dr	Residential	1956	1960

Appendix A
Location of Probable Wells

Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
887	123-073023430057	5079 Red Oak Dr	Residential	1956	1960
888	123-073023430058	5071 Red Oak Dr	Residential	1956	1960
889	123-073023430059	5065 Red Oak Dr	Residential	1956	1960
890	123-073023430060	5059 Red Oak Dr	Residential	1956	1960
891	123-073023430061	5053 Red Oak Dr	Residential	1956	1960
892	123-073023430062	5045 Red Oak Dr	Residential	1956	1960
893	123-073023430063	5046 Longview Dr	Residential	1956	1960
894	123-073023430064	5054 Longview Dr	Residential	1956	1960
895	123-073023430065	5060 Longview Dr	Residential	1956	1960
896	123-073023430066	5066 Longview Dr	Residential	1956	1960
897	123-073023430067	5072 Longview Dr	Residential	1956	1960
898	123-073023430068	5080 Longview Dr	Residential	1956	1960
899	123-073023430069	5086 Longview Dr	Residential	1956	1960
900	123-073023430070	5092 Longview Dr	Residential	1956	1960
901	123-073023430071	5095 Sunnyside Rd	Residential	1956	1960
902	123-073023430077	5046 Red Oak Dr	Residential	1958	1960
903	123-073023430078	5054 Red Oak Dr	Residential	1957	1960
904	123-073023430079	5060 Red Oak Dr	Residential	1958	1960
905	123-073023430085	5091 Brighton Ln	Residential	1957	1960
906	123-073023430086	5085 Brighton Ln	Residential	1956	1960
907	123-073023430087	5079 Brighton Ln	Residential	1956	1960
908	123-073023430088	5071 Brighton Ln	Residential	1956	1960
909	123-073023430089	5065 Brighton Ln	Residential	1956	1960
910	123-073023430090	5059 Brighton Ln	Residential	1956	1960
911	123-073023430091	5053 Brighton Ln	Residential	1956	1960
912	123-073023430092	5045 Brighton Ln	Residential	1956	1960
913	123-073023430093	5046 Sunnyside Rd	Residential	1956	1971
914	123-073023430094	5054 Sunnyside Rd	Residential	1956	1971
915	123-073023430095	5060 Sunnyside Rd	Residential	1956	1971
916	123-073023430096	5066 Sunnyside Rd	Residential	1956	1971
917	123-073023430097	5072 Sunnyside Rd	Residential	1956	1971
918	123-073023430098	5080 Sunnyside Rd	Residential	1956	1971
919	123-073023430099	5086 Sunnyside Rd	Residential	1956	1971
920	123-073023430100	5092 Sunnyside Rd	Residential	1956	1971
921	123-073023440001	5155 Long Lake Rd	Residential	1952	1960
922	123-073023440002	5143 Long Lake Rd	Residential	1952	1960
923	123-073023440003	5135 Long Lake Rd	Residential	1951	1960
924	123-073023440004	5127 Long Lake Rd	Residential	1951	1960
925	123-073023440005	5155 Long Lake Rd	Residential	1952	1960
926	123-073023440006	2595 Woodcrest Dr	Residential	1952	1960
927	123-073023440052	5091 Rainbow Ln	Residential	1957	1960
928	123-073023440053	5085 Rainbow Ln	Residential	1957	1960
929	123-073023440054	5079 Rainbow Ln	Residential	1950	1960

Appendix A
Location of Probable Wells

Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
930	123-073023440055	Rainbow Ln	Residential	1956	1960
931	123-073023440056	Rainbow Ln	Residential	1956	1960
932	123-073023440057	Rainbow Ln	Residential	1956	1960
933	123-073023440058	Rainbow Ln	Residential	1956	1960
934	123-073023440059	Rainbow Ln	Residential	1956	1960
935	123-073023440060		Residential	1956	1960
936	123-073023440061		Residential	1956	1960
937	123-073023440062		Residential	1956	1960
938	123-073023440063		Residential	1956	1960
939	123-073023440064		Residential	1956	1960
940	123-073023440065		Residential	1956	1960
941	123-073023440066		Residential	1956	1960
942	123-073023440067		Residential	1957	1960
943	123-073023440068		Residential	1956	1960
944	123-073023440069		Residential	1956	1960
945	123-073023440070		Residential	1955	1960
946	123-073023440071		Residential	1955	1960
947	123-073023440072		Residential	1955	1960
948	123-073023440073		Residential	1955	1960
949	123-073023440074		Residential	1955	1960
950	123-073023440075		Residential	1955	1960
951	123-073023440076		Residential	1955	1960
952	123-073023440077		Residential	1955	1960
953	123-073023440078		Residential	1955	1960
954	123-073023440079		Residential	1955	1960
955	123-073023440080		Residential	1955	1960
956	123-073023440081		Residential	1956	1960
957	123-073023440082		Residential	1956	1960
958	123-073023440083		Residential	1956	1960
959	123-073023440084		Residential	1956	1960
960	123-073023440085		Residential	1956	1960
961	123-073023440086		Residential	1955	1960
962	123-073023440087		Residential	1955	1960
963	123-073023440088		Residential	1955	1960
964	123-073023440089		Residential	1955	1960
965	123-073023440090		Residential	1955	1960
966	123-073023440091		Residential	1955	1960
967	123-073023440092		Residential	1955	1960
968	123-073023440093		Residential	1955	1960
969	123-073023440094		Residential	1955	1960
970	123-073023440095		Residential	1955	1960
971	123-073023440096		Residential	1956	1960
972	123-073023440097		Residential	1956	1960

Appendix A
Location of Probable Wells

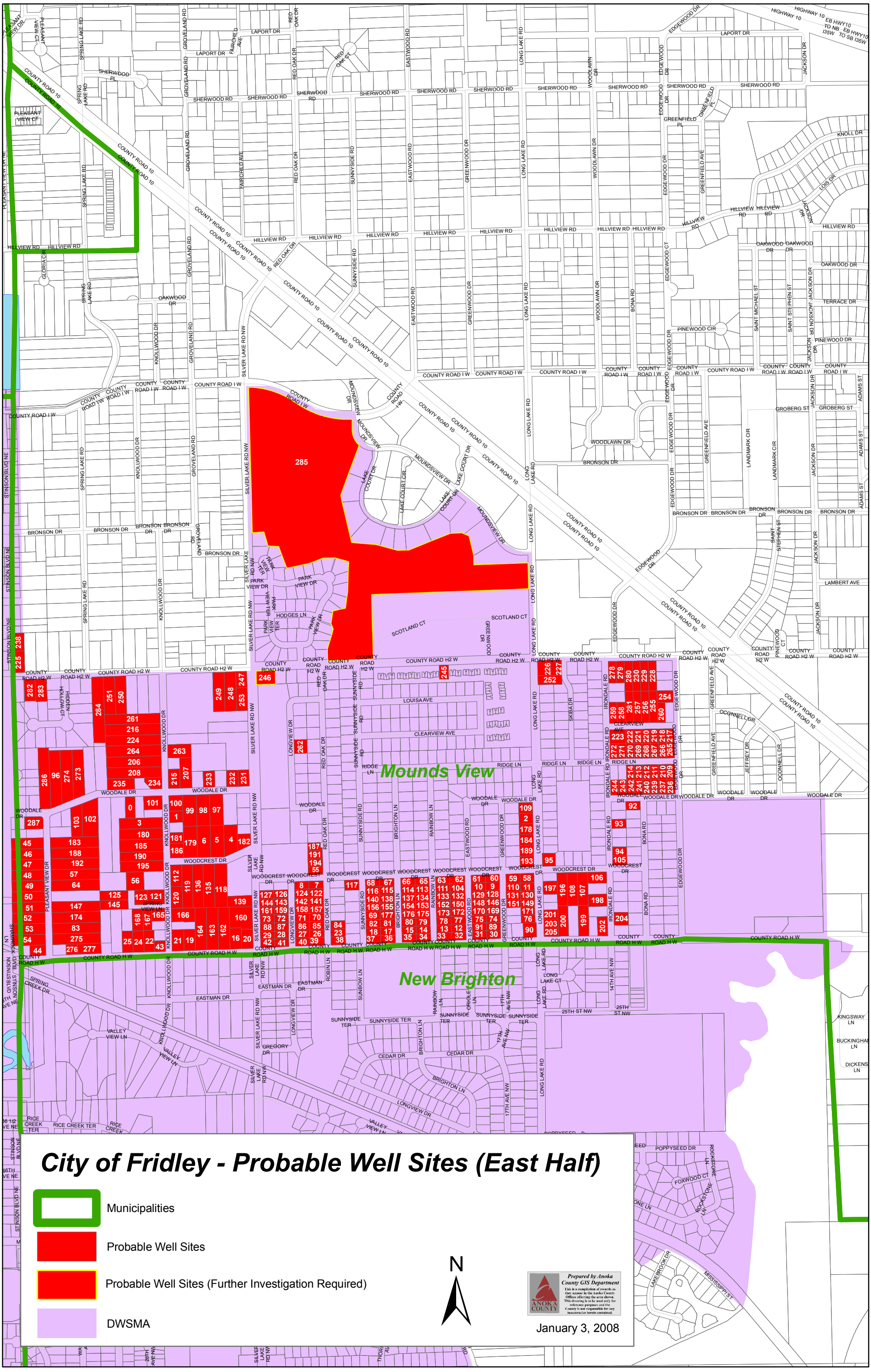
Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
973	123-073023440098		Residential	1956	1960
974	123-073023440099		Residential	1956	1960
975	123-073023440100		Residential	1955	1960
976	123-073023440101		Residential	1955	1960
977	123-073023440102		Residential	1955	1960
978	123-073023440103		Residential	1955	1960
979	123-073023440104		Residential	1955	1960
980	123-073023440105		Residential	1955	1960
981	123-073023440109		Residential	1955	1960
982	123-073023440110		Residential	1955	1960
983	123-073023440111		Residential	1955	1960
984	123-073023440112		Residential	1955	1960
985	123-073023440115		Residential	1932	1960
986	123-083023320004		Residential	1950	1960
987	123-083023320005		Residential	1950	1960
988	123-083023320006		Residential	1950	1960
989	123-083023320007		Residential	1951	1960
990	123-083023320011		Residential	1950	1960
991	123-083023320012		Residential	1950	1960
992	123-083023320013		Residential	1950	1960
993	123-083023320014		Residential	1950	1960
994	123-083023320015		Residential	1950	1960
995	123-083023320016		Residential	1950	1960
996	123-083023320019		Residential	1952	1960
997	123-083023320020		Residential	1952	1960
998	123-083023320021		Residential	1952	1960
999	123-083023320022		Residential	1952	1960
1000	123-083023320023		Residential	1952	1960
1001	123-083023320024		Residential	1952	1960
1002	123-083023320025		Residential	1952	1960
1003	123-083023320026		Residential	1954	1960
1004	123-083023320027		Residential	1953	1960
1005	123-083023320028		Residential	1953	1960
1006	123-083023320029		Residential	1953	1960
1007	123-083023320030		Residential	1953	1960
1008	123-083023320031		Residential	1953	1960
1009	123-083023320032		Residential	1952	1960
1010	123-083023320033		Residential	1952	1960
1011	123-083023320034		Residential	1954	1960
1012	123-083023320035		Residential	1954	1960
1013	123-083023320036		Residential	1955	1960
1014	123-083023320037		Residential	1955	1960
1015	123-083023320038		Residential	1955	1960

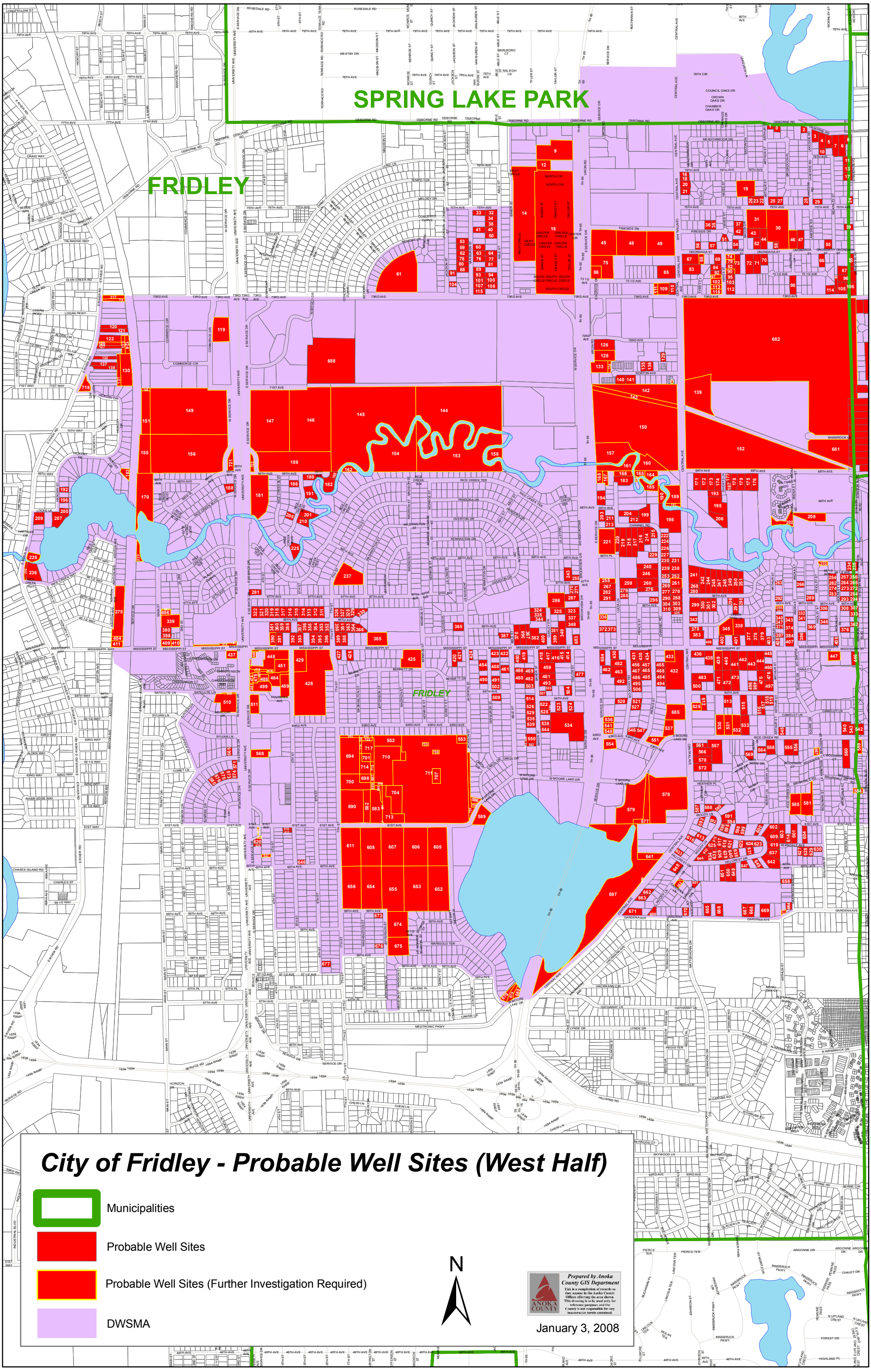
Appendix A
Location of Probable Wells

Loc No.	PIN	ADDRESS	Prop. Class	Yr. Blt	Wtr. Main Yr.
1016	123-083023320039		Residential	1959	1960
1017	123-083023320042		Residential	1951	1960
1018	123-083023320043		Residential	1951	1960
1019	123-083023320044		Residential	1951	1960
1020	123-083023320045		Residential	1951	1960
1021	123-083023320046		Residential	1952	1960
1022	123-083023320047		Residential	1952	1960
1023	123-083023320048		Residential	1952	1960
1024	123-083023320049		Residential	1952	1960
1025	123-083023320072		Residential	1941	1960
1026	123-083023320074		Residential	1952	1968
1027	123-083023320103		Residential	1950	1960
1028	123-083023320106		Residential	1950	1960
1029	123-083023320107		Residential	1952	1960
1030	123-083023320108		Residential	1950	1960
1031	123-083023320111		Residential	1950	1960
1032	123-083023330014		Residential	1954	1960
1033	123-083023330021		Residential	1952	1960
1034	123-083023330022		Residential	1952	1960
1035	123-083023330025		Residential	1892	1960
1036	123-083023330042		Exempt	1971	(1)
1037	123-083023330048		Residential	1920	1960
1038	123-083023330051		Residential	1956	1960
1039	123-083023330052		Residential	1953	1960
1040	123-083023330054		Residential	1946	1960
1041	123-083023330056		Residential	1949	1960
1042	123-083023330057		Residential	1958	1960
1043	123-083023330058		Residential	1951	1960
1044	123-083023330059		Residential	1951	1960
1045	123-083023330060		Residential	1949	1960
1046	123-083023330062		Residential	1949	1960
1047	123-083023330065		Residential	1944	1960
1048	123-083023330073		Residential	1891	1960
1049	123-083023330096		Residential	1941	1960

(1) Because information is not available regarding the year the parcel is developed, or the year that City water has been provided to the parcel, additional investigation is necessary to determine if the property is probable to have a well.

See attached map


City of Fridley - Probable Well Sites (East Half)
Municipalities
Probable Well Sites
Probable Well Sites (Further Investigation Required)
DWSMA
N
Prepared by Anoka County GIS Department
This is a compilation of records as they appear in the Anoka County Offices affecting the area shown. This drawing is to be used only for reference purposes and the County is not responsible for any inaccuracies herein contained.
ANOKA COUNTY
January 3, 2008
Mounds View
New Brighton
285


SPRING LAKE PARK
FRIDLEY
FRIDLEY
City of Fridley - Probable Well Sites (West Half)
Municipalities
Probable Well Sites
Probable Well Sites (Further Investigation Required)
DWSMA
N
Prepared by Anoka County GIS Department
This is a compilation of records as they appear in the Anoka County Offices affecting the area shown. This drawing is to be used only for reference purposes and the County is not responsible for any inaccuracies herein contained.
ANOKA COUNTY
January 3, 2008

Appendix B: Potential Contaminant Source Inventory

Property ID Number Class & Description Structure Description	**Address**	**Property Owner Name Facility Name**	**Potential Contaminant Type (bold indicates active)**
003-013024340012	1105 Osborne Rd NE	Mack Charles P	
3610 Service Station Good Cl. C Serv. Garage	7701 Hwy 65 NE	Serv Stn #9280-147	**Reg Tank #217 (3 Active)**
003-013024340016	1173 Osborne Rd NE	Alacrity Investments	
3410 Commercial Avg Cl. P Shell Bldg.	1173 Osborne Rd NE	Squid Ink Mfg, Inc.	Haz Waste Gen – SQG
003-013024340018	1199 Osborne Rd NE	Timo Woodrow Val	
3400 Commercial	1199 Osborne Rd NE	Central Rental	Haz Waste Gen – VSQG
003-013024340050	1229 Osborne Rd NE	Schuur Courtney	
3510 Industrial	1229 Osborne Rd NE	North East Terminal	Reg Tank #13565 (Removed)
Low Cl. S Serv. Garage	1229 Osborne Rd NE	Shorty's Wrecker Serv	Haz Waste Gen - Class 1 Used Oil
003-013024430004	7705 Central Ave NE	Plassein Properties	
3510 Industrial Fair Cl. C Light Mfg.	7707 Central Ave NE	Plymouth Plastics Inc	Haz Waste Gen – VSQG
003-013024430086	7703 Central Ave NE	Cowan Margaret Ann	
3510 Industrial Fair Cl. C Light Mfg.	7703 Central Ave NE	Sourceone Graphics	Haz Waste Gen – VSQG
003-013024430087	1313 Osborne Rd NE	Robinson John D	
3510 Industrial	1313 Osborne Rd NE	Robinson Coach Inc	Haz Waste Gen – VSQG
Fair Cl. C Warehouse	1313 Osborne Rd NE	Robinson Coach, Inc	**Reg Tank #20394 (1 Active)**
003-113024310020	350 Northco Dr NE	Willamette Industries Inc	
3515 Industrial	350 Northco Dr	Willamette Industries, Inc	**Reg Tank #55559 (6 Active)**
Avg. Cl. C Warehouse	350 Northco Dr NE	Weyerhauser Corrugated	Haz Waste Gen – VSQG
003-113024320011	7180 Commerce Cir W	Vandal Michael J	
3515 Industrial	7180 W Commerce Cir NE	Frito-Lay Inc	LUST 8822 (File Closed)
Avg. Cl. S Warehouse	7180 W Commerce Cir NE	Frito-Lay Inc	Reg Tank #4119 (Removed)
003-113024320028	7260 University Ave NE 145	Levitan Limited Partnrshp	
3415 Commercial	7205 University Ave NE	Associated Skin Care Spec	Haz Waste Gen – SQG
Low Cl. C Office	7245 University Ave NE	Lowells Paint Supply	Haz Waste Gen – VSQG

Property ID Number Class & Description Structure Description	Address	Property Owner Name Facility Name	Potential Contaminant Type (bold indicates active)
003-113024320029 3515 Industrial Avg Cl. C Industrial Flex	7280 Commerce Cir E	Trustee Group Realty Prtn	
	7280 Commerce Cir E	ABW Plating Service, Inc	Haz Waste Gen – SQG
	7277 Commerce Cir W	Service Tradesman	Ag Site Unknown - 18579
	7258 Commerce Cir E	Omnetics Connector Corp	Haz Waste Gen – VSQG
	7165 Commerce Cir W	Flexcon Co Inc	Haz Waste Gen – SQG
	7265 Commerce Cir W	G Franko Screw Machine	Haz Waste Gen – VSQG
	7279 Commerce Cir W	TSI Molding, Inc.	Haz Waste Gen – VSQG
	7258 Commerce Cir E	Kopak Packaging Corp	Ag Site Unknown
003-113024320030 3515 Industrial Avg Cl. C Industrial Flex		Trustee Group Realty Prtn I	
	7151 Commerce Cir NE	Midwest Industrial Painting	Haz Waste Gen – VSQG
003-113024320032 3415 Commercial	7200 University Ave NE	Bally Total Fitness Corp	
	7136 University Ave NE	Assoc Oral & Maxillofacial Surgeons	Haz Waste Gen - VSQG (Silver)
003-113024340002 4013 Exempt Property Columbia Arena	7011 University Ave NE	Minnesota State Of	
	7011 University Ave NE	Columbia Arena	Ag Chem Storage - 00023458
	7011 University Ave NE	Columbia Ice Arena	**Reg Tank #4581 (2 Active)**
003-113024340003 4017 Exempt Property City Garage		Fridley City of	
	69th Av & Rice Ck Blvd	Columbia/City Of Fridley Demo Fill	DUMP
	400 71st Ave NE	Fridley Public Works	**LUST 11381 (Active)**
	400 71st Ave NE	City Of Fridley - Maint Ctr	Reg Tank #4525 (Removed)
	400 71st Ave NE	City Of Fridley	Haz Waste Gen – VSQG
003-113024340005 4017 Exempt Property		Fridley City Of	
	6911 University Ave NE	Fridley-Locke Park WTP	NPDES - MN0043664
003-113024420006 3515 Industrial Fair Cl. C Office	500 73rd Ave NE	CSM Properties Inc	
		Carter-Day Co	Reg Tank #12403 (Removed)
	504 73rd Ave NE	Carter Day International Inc	Haz Waste Gen – SQG
003-113024420010 3515 Industrial Avg. Cl. C Warehouse	490 Northco Dr NE	CSM Properties Inc	
		Kwik-File	Haz Waste Gen – SQG
003-123024210008 3515 Industrial Fair Cl. S Light Mfg	7585 Viron Rd NE	Kuban William G	
	7585 Hwy 65 NE	Kurt Mfg – Die Cast	**Reg Tank #119785 (1 Active)**
		Kurt Mfg Strite Die Cast Div	Haz Waste Gen – VSQG
003-123024210027 3515 Industrial AVG Cl. C Shell Bldg.	1240 Osborne Rd NE	Voigt Darwin A	
	1240 Osborne Rd NE	Voigt's Fridley Bus Co	Haz Waste Gen - Cl. 1 U Oil
	1250 Osborne Rd NE	Voigt's Fridley Bus Co	**Reg Tank #19039 (1 Active)**

Property ID Number Class & Description Structure Description	Address	Property Owner Name Facility Name	Potential Contaminant Type (bold indicates active)
003-123024210029 3515 Industrial Fair Cl. C Serv. Garage	7600 Central Ave NE	Anderson Trucking Serv Inc	
	7600 Central Ave NE	Anderson Trucking Serv Inc	Reg Tank #132 (Removed)
	7600 Central Ave NE	Anderson Trucking.	LUST 4778 (File Closed)
	7600 Central Ave NE	Midwest Coast Trans	Haz Waste Gen – VSQG
	7616 Central Ave NE	Williams Electric	Reg Tank #20026 (Removed)
003-123024220003 3415 Commercial Fair Cl. C Serv. Garage	1010 Osborne Rd NE	Fridley Auto Repair	
	1010 Osborne Rd NE	Victory Auto Service	Haz Waste Gen – VSQG
	1010 Osborne Rd NE	Fridley Tire And Auto	LUST 11037 (File Closed)
	1010 Osborne Rd NE	Fridley Tire & Brake	**Reg Tank 11830 (1 Active)**
003-123024220006 3415 Commercial Fair Cl. D Office	7570 Hwy 65 NE	American Trustee Life	
	7570 Hwy 65 NE	Sam's Auto World	Haz Waste Gen – VSQG
003-123024220008 3615 Service Station Avg Cl. C Shell Bldg.	7680 Hwy 65 NE	Ring Lloyd R	
	7680 Hwy 65 NE	Amoco #5308	LUST 805 (File Closed)
	7680 Hwy 65 NE	Fridley Service/Amoco #5308	**Reg Tank #2917 (3 Active)**
	7680 Hwy 65 NE	Fridley Amstar Auto	Haz Waste Gen – VSQG
003-123024220026 3515 Industrial Avg Cl. C Light Mfg.	7645 Baker St NE	LAI Midwest Inc	
	7645 Baker St NE	Rms Co	Reg Tank #237 (Removed)
003-123024220029 3415 Commercial	7600 Hwy 65 NE	BDA Dev Corp LLP	
	7600 Hwy 65 NE	Lampert Building Ctr	LUST 1604 (File Closed)
	(Address Unknown)	Lampert Lumber	Reg Tank #52902 (Abandoned)
	7600 Hwy 65 NE	Lampert Building Ctr	Reg Tank #4523 (Removed)
	7610 Hwy 65 NE	Brent Anderson Asso	Haz Waste Gen – VSQG
003-123024230006 3515 Industrial Fair Cl. C Light Mfg.	7345 Baker St NE	Ryanissa LLC	
	7345 Baker St NE	El tronic Precision Inc	Haz Waste Gen (unkn) MND006260194
	E Of 73rd Ave NE & Able St	Electronic Precision	DUMP
003-123024240015 3415 Commercial Avg. Cl. S Warehouse	1201 73 1/2 Ave NE 2	Central Auto Parts Mpls	
	1201 73 1/2 Ave NE	Central Auto Parts	Vol Invest Cleanup (VP 13370)
	1201 73 1/2 Ave NE	Skip's Central Auto Parts	Salvage yard
	1201 73 1/2 Ave NE	Central Auto Parts	Haz Waste Gen - Cl. 2 U Oil
003-123024240022 3415 Commercial Fair Cl. C Warehouse		Haluptzok Harold V	
	73rd Ave NE	Fridley Salvage Yards	Vol Invest Cleanup (VP 13370)
	7300 Central Ave NE	Fridley Auto Parts	Haz Waste Gen - Cl. 2 U Oil
	7300 Old Central Ave NE	Fridley Auto Parts	Salvage yard

Property ID Number Class & Description Structure Description	Address	Property Owner Name Facility Name	Potential Contaminant Type (bold indicates active)
003-123024240040 3415 Commercial	1240 73 1/2 Ave NE	Haluptzok Derek A	
	1240 73 1/2 Ave NE	Sam's Auto Parts	Salvage yard
	1240 73 1/2 Ave NE	Sam's Auto Parts	Haz Waste Gen - Cl. 2 U Oil
003-123024240042 3515 Industrial Fair Cl. C Light Mfg.	7410 Central Ave NE	Gustavson Walt & Floyd	
	7410 Old Central Ave NE	Gustavson Grindgin Inc	Reg Tank #17574 (Removed)
003-123024240047 3415 Commercial Avg Cl. C Quik Lube	7315 Hwy 65 NE	Valvoline Inst Oil Chnge	
	7315 Hwy 65 NE	Valvoline Rapid Oil	**Reg Tank 54442 (3 Active)**
	7315 Hwy 65 NE	Valvoline Rapid Oil Change 01-37	Haz Waste Gen - Cl. 1 U Oil
003-123024240054 3415 Commercial Avg Cl. C Office	7501 Hwy 65 NE	Dunmoody Inc	
	7501 Hwy 65 NE	Viking Chevrolet	LUST 4945 (File Closed)
	7501 Hwy 65 NE	Friendly Chevrolet/Geo	Reg Tank #15288 (Removed)
	7501 Hwy 65 NE	Viking Chevrolet	**Reg Tank #54112 (1 Active)**
	7501 Hwy 65 NE	Friendly Chevrolet Geo	Haz Waste Gen - SQG
003-123024240055 3515 Industrial Avg Cl. C Light Mfg.	7490 Central Ave NE	Brenk Brothers Ptnshp	
	7490 Central Ave NE	Brenk Brothers Inc	LUST 8082 (File Closed)
	7490 Central Ave NE	Brenk Brothers Inc	Reg Tank 19020 (Removed)
	7490 Central Ave NE	Brenk Brothers Inc	Haz Waste Gen - Cl. 1 U Oil
003-123024310008 3415 Commercial Fair Cl. C Retail Store	7191 Highway 65 NE	Romano-Jorgenson Ptnsp	
	7191 Hwy 65 NE	Kurt Manufacturing Co	Reg Tank 239 (Removed)
	7191 Hwy 65 NE	Chopper City Sports	Haz Waste Gen - VSQG
003-123024310010 3415 Commercial	7151 Highway 65 NE	Harstad Donald W	
	7101 Hwy 65 NE	D W Harstad Co Inc	Reg Tank #197 (Removed)
003-123024310031 3515 Industrial Avg Cl. C Industrial Flex	1290 73rd Ave NE 1	Bryant Franklin Ptnsp	
	1290 73rd Ave NE	All American Rec	Ag Site Unknown (17361)
	1290 73rd Ave NE	Upper Midwest Seed	Ag Site Unknown (22923)
003-123024310051 3615 Service Station Good Cl. C Conv Store	7299 Hwy 65 NE	Ashland Oil Inc	
	7299 Hwy. 65	SuperAmerica 4199	**LUST 15773 (Active)**
	7299 Hwy 65 NE	Superamerica #4199	**Reg Tank #210 (4 Active)**
003-123024310055 3515 Industrial Avg Cl. C Shell Bldg.	1130 73rd Ave NE	Jewel Properties	
	1130 73rd Ave NE	Crysteel Truck Equip	Haz Waste Gen - VSQG
003-123024310056 3515 Industrial Avg Cl. C Shell Bldg.	1131 72nd Ave NE 1	Haarstad Enterprises	
	1131 72nd Ave NE	Hydraulic Specialty Co	Haz Waste Gen - Cl. 1 U Oil

Property ID Number Class & Description Structure Description	Address	Property Owner Name Facility Name	Potential Contaminant Type (bold indicates active)
003-123024310057 3515 Industrial Fair Cl. S Shell Bldg.	1241 72nd Ave NE	Determan James R	
	1241 - 72nd Ave NE	Determan Tank	Haz Wst Invest & Cleanup
	1241 72nd Ave NE	Determan Welding	LUST 6912 (File Closed)
	1241 72nd Ave NE	Determan Welding	**LUST 11597 (Active)**
	1241 72nd Ave NE	Determan Welding	**Reg Tank #143 (9 Active)**
	1241 72nd Ave NE	Determan Welding &	Ag Site Unknown (18537)
	1241 72nd Ave NE	Determan Brownie Inc	Haz Waste Gen (LQG)
003-123024320004 3615 Service Station Avg Cl. C Convenience Store	7298 Hwy 65 NE	Twin Cities Stores Inc	
	7298 Hwy 65 NE	Fina Station	LUST 3530 (File Closed)
	7298 Hwy 65 NE	Stop and Save	**Reg Tank #63 (4 Active)**
	7298 Hwy 65 NE	Fina #9550	Vol Invest Cleanup
	1090 73rd Ave NE	Pro Stop Truck Service	Haz Waste Gen – VSQG
003-123024320009 3515 Industrial	7120 Highway 65 NE	Dayton-Hudson Corp	
	1090 73rd Ave NE	Target Distribution Ctr	**Reg Tank #53140 (1 Active)**
	1090 73rd Ave NE	Target Distribution Ctr	Haz Waste Gen - VSQG
003-123024330005 3515 Industrial Avg Cl. C Office	6982 Hwy 65 NE	6982 Properties Ltd Ptnr	
	6982 Hwy 65 NE	Kuether Dist Co	LUST 9104 (File Closed)
	6982 Hwy 65 NE	Kuether Dist Co	LUST 12019 (File Closed)
	6982 Hwy 65 NE	Kuether Dist Co	Reg Tank #126 (Removed)
003-123024330006 3515 Industrial Avg Cl. C Office	7000 Hwy 65 NE	Meuers Lawrence & V	
	7000 Hwy 65 NE	Pennsylvania Oil Co (Pennzoil)	Haz Wst Invest & Cleanup
	7000 Hwy 65 NE	Pennsylvania Oil Co	LUST 3708 (File Closed)
	7000 Hwy 65 NE	Pennsylvania Oil Co	Reg Tank #35 (Removed)
003-123024340003 3515 Industrial	6970 Central Ave NE	Medtronic Inc	
	7000 Central Ave NE	Medtronic Inc	LUST 4550 (File Closed)
	7000 Central Ave NE	Medtronic Inc	LUST 12651 (File Closed)
	7000 Central Ave NE	Medtronic	Perm List of Priorities
	7000 Central Ave NE	Medtronic Inc	**Reg Tank #12925 (1 Active)**
	7000 Central Ave NE	Medtronic Inc	Haz Waste Gen (LQG)

Property ID Number Class & Description Structure Description	Address	Property Owner Name Facility Name	Potential Contaminant Type (bold indicates active)
003-123024410003 3515 Industrial	1400 73rd Ave NE	Onan Corp	
	1400 - 73rd Ave NE	Onan Corporation	LUST 811 (File Closed)
	1400 73nd Ave NE	Onan Corporation	LUST 1010 (File Closed)
	1400 73rd Ave NE	Onan Corporation	LUST 2182 (File Closed)
	1400 73rd Ave NE	Onan Manufacturing	LUST 14502 (File Closed)
	1400 73rd Ave NE	Onan Corporation	**LUST 16048 (Active)**
	1400 73rd Ave NE	Cummins/Onan	Vol Invest Cleanup (VP 10430)
	1400 73nd Ave NE	Onan Manufacturing	**Reg Tank #164 (16 Active)**
	1400 73rd Ave NE	Onan Corporation	Haz Waste Gen (LQG)
003-123024430001 3515 Industrial	6951 Central Ave NE	Medtronic Inc	
	6951 Central Ave NE	Medtronic (Bus & Tech)	**Reg Tank #15589 (2 Active)**
003-133024130022 3415 Commercial Low Cl. C Serv. Garage	6519 Central Ave NE	Phillips Gary & Patricia	
	6519 Central Ave NE	Northeast Towing Serv	LUST 14676 (File Closed)
	6519 Central Ave NE	Garys Auto Service	**Reg Tank #11643 (1 Active)**
	6519 Central Ave NE	Garys Auto Of Fridley	Haz Waste Gen - Cl. 1 U Oil
003-133024140118 2114 Residential Split Foyer	6660 Anoka St NE	Youngdahl Ron & Gail	
	6660 Anoka St NE	Complete Grounds Maint	Ag Site Unknown
003-133024310014 2219 Residential Dbl. BungaLow	6428 Dellwood Dr NE	Nelson Gregory P	
	6428 Dellwood Dr NE	Chismar Residence	LUST 9543 (File Closed)
003-133024310072 3415 Commercial	6301 Central Ave NE	KEMK Companies	
	6301 Highway 65 NE	Frmr White Wolf Prop	LUST 12556 (File Closed)
	6301 Hwy 65 NE	Peterson Property	LUST 12639 (File Closed)
003-133024330034 3415 Commercial Fair Cl. C Retail Store	6304 Central Ave NE	Five Crown Dev LLC	
	6304 Hwy 65 NE	Taho Sports	LUST 13665 (File Closed)
003-133024330035 3615 Service Station Avg Cl. C Serv. Garage	6290 Central Ave NE	Sinclair Marketing Inc	
	6290 Hwy 65	Sinclair Retail	LUST 2299 (File Closed)
	6290 Hwy 65	Sinclair Retail	Reg Tank #53 (Removed)
003-133024330037 4006 Exempt Property	6180 Hwy 65 NE	St Philips Lutheran Ch	
	6180 Hwy 65 NE	St Philips Lutheran Ch	Reg Tank #14338 (Removed)
003-133024330039 3415 Commercial Avg Cl. D Office	6230 Hwy 65 NE 102	Peterson Doraine L	
	6280 Hwy 65 NE	Advanced Health Pa	Haz Waste Gen - VSQG (Silver)
	6230 Hwy 65 NE #102	Moore Lake Dental	Haz Waste Gen - VSQG (Silver)

Property ID Number Class & Description Structure Description	Address	Property Owner Name Facility Name	Potential Contaminant Type (bold indicates active)
003-133024340025 3415 Commercial Avg Cl. C Shop Ctr	1001 Moore Lake Dr E	Shorewood Plaza&Timmer BA	
	1099 Moore Lake Dr E	Dr John W Cretzmeyer	Haz Waste Gen - VSQG (Silver)
003-133024340026 3415 Commercial Avg Cl. C Discount Store	1000 Moore Lake Dr E	Jacobs Trading Co	
	1000 Moore Lake Rd E	Jacobs Trading Co	Ag Site Unknown (00021200)
003-143024130007 4001 Exempt Property	615 Mississippi St NE	Ind School District #23	
	615 Mississippi	Hayes Elem School	LUST 592 (File Closed)
	615 Mississippi St	Hayes Elem School	**Reg Tank #12284 (1 Active)**
003-143024210039 2117 Residential Split Level	418 Rice Creek Blvd NE	Seefeld Allan R	
	418 Rice Creek Blvd NE	Pets By Marie	Ag Site Unknown (00017365)
~~003-143024230064~~ ~~2114 Residential~~ ~~Rambler Basement~~	~~6811 Plaza Crv NE~~	~~Freund Roger & Deborah~~	
	~~6811 Plaza Crv NE~~	~~Dave Fuccenberg~~	~~Haz Waste Gen (MND982066656)~~
003-143024230081 3415 Commercial Fair Cl. D Medical Office	201 Mississippi St NE	Lapinski Joseph M	
	201 Mississippi St NE	Lapinski Jm Dental Office	Haz Waste Gen (VSQG-Silver)
003-143024230098 3415 Commercial Avg Cl. C Neighborhood Ctr	6530 University Ave NE	Horizon Mngmnt LLC	
	6528 University Ave NE	Bernies Automotive	Haz Waste Gen – VSQG
	6528 University Ave NE	Fridley Champion Auto	Reg Tank #52979 (Status Unknown)
	6530 University Ave NE	Boot Hill	Ag Site Unknown
003-143024240099 3415 Commercial Good Cl. C Retail Store	6525 University Ave NE	EJA Trust Fridley LLC	
	6525 University Ave NE	Walgreens #4697	Haz Waste Gen – VSQG (Silver)
003-143024310067 2617 Residential, Apt	460 Mississippi St NE Apt 101	Fridley Apartments	
	460 Mississippi St NE	Village Green Apartments	**Reg Tank #20446 (1 Active)**
003-143024310093 4017 Exempt Property	6431 University Ave NE	Fridley HRA	
	6431 University Ave NE	Fridley City Of	Ag Site Unknown (00013301)
	6431 University Ave NE	City Of Fridley Muni Grg	LUST 8863 (File Closed)
	6431 University Ave NE	City Of Fridley Muni Ctr	Reg Tank #60 (Closed in-place)
003-143024310098 4020 Exempt Property	6341 University Ave NE	Fridley HRA	
	6341 University Ave NE	Fridley Plaza Med Clnc	Haz Waste Gen - VSQG (Silver)

Property ID Number Class & Description Structure Description	Address	Property Owner Name Facility Name	Potential Contaminant Type (bold indicates active)
003-143024320188 4007 Exempt Property	6490 University Ave NE	Fridley HRA/Rottlund	
	6490 University Ave NE	Fridley Fast Lube	LUST 8145 (File Closed)
	6490 University Ave NE	Fast Lube/Kiffe's Auto	Reg Tank #18488 (Removed)
003-143024340004 3415 Commercial Fair Cl. C Retail Store	6257 University Ave NE	Plaza Developments LLC	
	6259 University Ave NE	Plaza Cleaners	Haz Waste Gen – SQG
003-143024340010 3615 Service Station Avg Cl. C Convenience Store	6101 University Ave NE	Twin Cities Avanti LLC	
	6101 University Ave NE	Q Superette	LUST 455 (File Closed)
	6101 University Ave NE	Total Petroleum #2678	LUST 5738 (File Closed)
	6101 University Ave NE	Avanti Store #5678	LUST 12877 (File Closed)
	6101 University Ave NE	GEC Citgo Fridley	**Reg Tank #167 (2 Active)**
003-143024430036 4001 Exempt Property Commons Park		City of Fridley	
	E of 7th St. Between 63rd Ave &	Fridley Commons Park Well Field	**National Priorities List**
003-153024140053 3515 Industrial Fair Cl. S Shell Bldg.	6750 Main St NE	Voigt Darwin A	
	6750 Main St NE	Fridley Bus Co	LUST 11249 (File Closed)
	6750 Main St NE	Fridley Bus Co Inc	Reg Tank #4522 (Removed)
003-153024140082 3515 Industrial Avg Cl. C Light Mfg.	6536 Main St NE	Stylmark Inc	
	6536 Main St NE	Stylmark Inc	**Reg Tank #11348 (9 Active)**
	6536 Main St NE	Stylmark	Vol Invest Cleanup
	6536 Main St NE	Stylmark Inc	Haz Waste Gen – VSQG
003-153024410045 3515 Industrial Avg Cl. S Light Mfg.	200 Mississippi St NE	RAO Manufacturing Co	
	200 Mississippi St NE	RAO Manufacturing	**Reg Tank #55304 (9 Active)**
003-233024110001 4017 Exempt Property - (Park: Dunes)		Fridley City Of	
	Near W Moore Lake Dr & Carol Dr	Moore Lake Dump	DUMP
003-233024110002 4001 Exempt Property	6100 Moore Lake Dr W	Fridley City Of	
	6100 W Moore Lake Dr	Fridley Middle School	LUST 1347 (File Closed)
	6100 W Moore Lake Dr	Fridley Middle School	**Reg Tank #4513 (1 Active)**
003-233024110003 4001 Exempt Property	6000 Moore Lake Dr W	Ind School District #14	
	6000 Moore Lake Dr W	Fridley High School	Haz Waste Gen – VSQG
	6000 Moore Lake Dr W	Ind School Dist 14	Ag Site Unknown (00013300)
	6000 W Moore Lake Dr	Fridley High School	LUST 1325 (File Closed)
	6000 W Moore Lake Dr	Fridley High School	**Reg Tank #4512 (1 Active)**

Property ID Number Class & Description Structure Description	Address	Property Owner Name Facility Name	Potential Contaminant Type (bold indicates active)
003-233024120005 4001 Exempt Property	6085 7th St NE	Ind School District #14	
	6085 7th St NE	Community Ed Center	LUST 646 (File Closed)
	6085 7th St NE	Fridley Comm Ed Ctr	LUST 8835 (File Closed)
	6085 7th St NE	Fridley Comm Ed Ctr	**Reg Tank #11940 (1 Active)**
	6085 7th St NE	Fridley Comm Ed Ctr	**Reg Tank #11941 (1 Active)**
003-233024210099 2114 Residential Rambler Basement	6120 5th St NE	Nguyen Hoi V & Ruom	
	6120 5th St NE	St. Williams Church	Reg Tank #12926 (Removed)
003-233024210135 3615 Service Station Fair Cl. C Serv. Garage	6071 University Ave NE	Sinclair Oil Corporation	
	6071 University Ave NE	Sinclair Fridley	Haz Waste Gen - Cl. 1 U Oil
	6071 University Ave NE	Sinclair Service Station	LUST 3963 (File Closed)
	6071 University Ave NE	Sinclair Retail	**Reg Tank #55 (2 Active)**
003-243024120001 2105 Residential		Guiga Kais & Abdel Karim Anwar	
	NW Of Gardena Ave And Arthur	Gardena Avenue Dump	DUMP
003-243024120042 2115 Residential Rambler Basement	1336 Hillcrest Dr NE	Hiestand Thaddeus	
	1336 Hillcrest Dr NE	Bacon Residence	LUST 10157 (File Closed)
003-243024210005 4004 Exempt Property	6028 Central Ave NE	City Of Fridley	
	6028 Old Central Ave	Rush Residence	LUST 9887 (File Closed)
123-073023430083 2110 Residential Rambler	5086 Red Oak Dr	Range,Dale D	
	5086 Red Oak Dr	Precision Lawn Care Inc	Ag Site Unknown (16913)
	5086 Red Oak Dr	Star Lawn Inc	Ag Site Unknown (11442)
123-083023330047 2110 Residential BungaLow	5092 Long Lake Rd	Thill,Charlotte R	
	5092 Long Lake Rd	Williams Pipe Line Co	Reg Tank #50152 (Removed)
123-083023340003 4000 Exempt Property K-12 SCH-Pub.	5100 Edgewood Dr	ISD No 621	
	5100 Edgewood Dr	Edgewood Middle School	LUST 14367 (File Closed)
	5100 Edgewood Dr	Edgewood Middle Sch	**Reg Tank #17437 (1 Active)**
123-083023340004 4000 Exempt Property Spec. Taxing Dist.	2345 W Co. Rd. H	No Sub San Sewer Dist	
	2345 W Co Rd H	Moundsview Lift Station (L-35)	**Reg Tank 50199 (2 Active)**
	2345 W Co. Rd. H	MCWSI Moundsview L 35	Haz Waste Gen (MND985679737)

Property ID Number Class & Description Structure Description	Address	Property Owner Name Facility Name	Potential Contaminant Type (bold indicates active)
123-173023220043 4000 Exempt Property K-12 SCH-Pub.	2425 Long Lake Rd	Ind School Dist 621	
	2425 Long Lake Rd	Irondale High School	Haz Waste Gen (MNR000015842)
	2425 Long Lake Rd	Irondale Senior High School	LUST 8692 (File Closed)
	2425 Long Lake Rd	Irondale Sr High School	**Reg Tank #17438 (1 Active)**
123-173023230009 3400 Commercial	2251 Long Lake Rd	Beach,Delore L	
	2251 Long Lake Rd	Beachs Long Lake Serv	Haz Waste Gen (MND981535214)
	2251 Long Lake Rd	Beachs Long Lake Serv	LUST 2582 (File Closed)
	2251 Long Lake Rd	Beachs Long Lake Service	LUST 10328 (File Closed)
	2251 Long Lake Rd	Beachs Long Lake Serv	**Reg Tank #3519 (4 Active)**
123-183023110094 2110 Residential Bungalow	2430 Long Lake Rd	Kuehn,Matthew	
	2430 Long Lake Rd	Architechtural Metal Serv	Haz Waste Gen (MNR000018531)
123-183023210017 2110 Residential Rambler	2678 Eastman Dr	Siercks,Rose M	
	2678 Eastman Dr	Timmers Express	Haz Waste Gen (MND985714526)
123-183023210030 2110 Residential Split Level	2553 Eastman Dr	Knudsen,Timothy D	
	2553 Eastman Dr	Kathleen Fisher	LUST 1120 (File Closed)
123-183023310003 3400 Commercial	2166 Silver Lake Rd	Zitzloff,Lowell R	
	2555 Mississippi St	Lowells AutoSpec	Haz Waste Gen (MND982207599)
	2166 Silver Lake Rd	World Cycle & Fitness	Haz Waste Gen (MN0000066324)
	2172 Silver Lake Rd	McGraw Timothy G DC PA	Haz Waste Gen (MND985673102)
123-183023310004 3400 Commercial		Johnson,Charles H	
	2599 Mississippi St	Commercial Finishes Inc	Haz Waste Gen (MND980898548)
123-183023310061 3400 Commercial		Supervalu Inc	
	2074 Silver Lake Rd	Rice Creek Shop Ctr	Haz Waste Gen (MNR000063230)

Property ID Number Class & Description Structure Description	Address	Property Owner Name Facility Name	Potential Contaminant Type (bold indicates active)
123-183023310087 3400 Commercial	2010 Silver Lake Rd	Speedway Superamerica LLC	
	2010 Silver Lake Rd	Superamerica 4116	Haz Waste Gen (MND985767078)
	2010 Silver Lake Rd	Superamerica #4116	LUST 3807 (File Closed)
	2010 Silver Lake Rd	Superamerica #4116	LUST 11389 (File Closed)
	2010 Silver Lake Rd	Superamerica #4116	**Reg Tank #3807 (3 Active)**
123-183023310088 3400 Commercial	2120 Silver Lake Rd	Enby LLC	
	2128 Silver Lake Rd	Rice Creek Chiropractic	Haz Waste Gen (MND985676097)
	2120 Silver Lake Rd	Snyder Bros Store #5077	Haz Waste Gen (MNR000078394)
123-183023310089 3400 Commercial	2190 Silver Lake Rd	Schill, Dennis D	
	2190 Silver Lake Rd	Dennys Service Center	Haz Waste Gen (MND981778285)
123-183023340076 3400 Commercial	1900 Silver Lake Rd	Roseville LLC	
	1900 Silver Lake Rd Ste 204	Correctcare Chiropractic Ctr	Haz Waste Gen (MNR000034629)
123-183023420101 3400 Commercial	2051 Silver Lake Rd	Momentum Entrprss Nicollet LLC	
	2051 Silver Lake Rd	Superamerica #1354	LUST 258 (File Closed)
	2051 Silver Lake Rd	Superamerica #1354	Reg Tank #10276 (Removed)
123-183023420102 3400 Commercial	2191 Silver Lake Rd	Haad Management Inc	
	2193 Silver Lake Rd	Brandeen Phillip Dr A	Haz Waste Gen MND144700762

Reg Tank: MPCA registered storage tank including current status (as of August 4, 2007)
Haz Waste Gen: County licensed hazardous waste generator (as of August 4, 2007)

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Appendix C: MDH Source Water Assessment Report

Source Water Assessment For Fridley

ID Number 1020031

Facility Contact:
City Hall (763) 571-3450
Fridley Water Superintendent
6431 University Avenue NE
Fridley, MN 55432

MDH Contact:
Mike Howe (320) 223-7342
333 West Division Street, Suite 212
St. Cloud, MN 56301
mike.howe@health.state.mn.us

Status of the Source Water Protection Plan:
The water supply system is preparing a protection plan for the wellhead protection area(s) that have been approved by the Minnesota Department of Health under provisions of Minnesota Rules Chapter 4720.
Source Water Protection Area: - The SWPA map is provided at the end of this assessment.
Description of the source water - The water supply for Fridley is obtained from 11 primary wells. Well depth (in feet), well status, aquifer(s) used, and sensitivity of the source(s) of drinking water are listed in the following table.

Unique Well No.	Well ID	Depth	Well Use	Aquifer	Aquifer Sensitivity	*Well Sensitivity	SWPA
00206674	#2	842.0	Primary	Bedrock	High	See (2)	Yes
00206670	#3	870.0	Primary	Bedrock	High	See (2)	Yes
00201158	#4	831.0	Primary	Bedrock	High	See (2)	Yes
00206675	#5	845.0	Primary	Bedrock	High	See (2)	Yes
00206673	#6	255.0	Primary	Bedrock	High	See (2)	Yes
00206678	#7	262.0	Primary	Bedrock	High	See (2)	Yes
00206669	#8	265.0	Primary	Bedrock	High	See (2)	Yes
00206672	#9	262.0	Primary	Bedrock	High	See (2)	No
00206658	#10	199.0	Primary	Glacial Deposits	High	See (2)	Yes
00206657	#11	669.0	Primary	Bedrock	High	See (2)	Yes
00209207	#12	276.0	Primary	Bedrock	High	See (2)	Yes

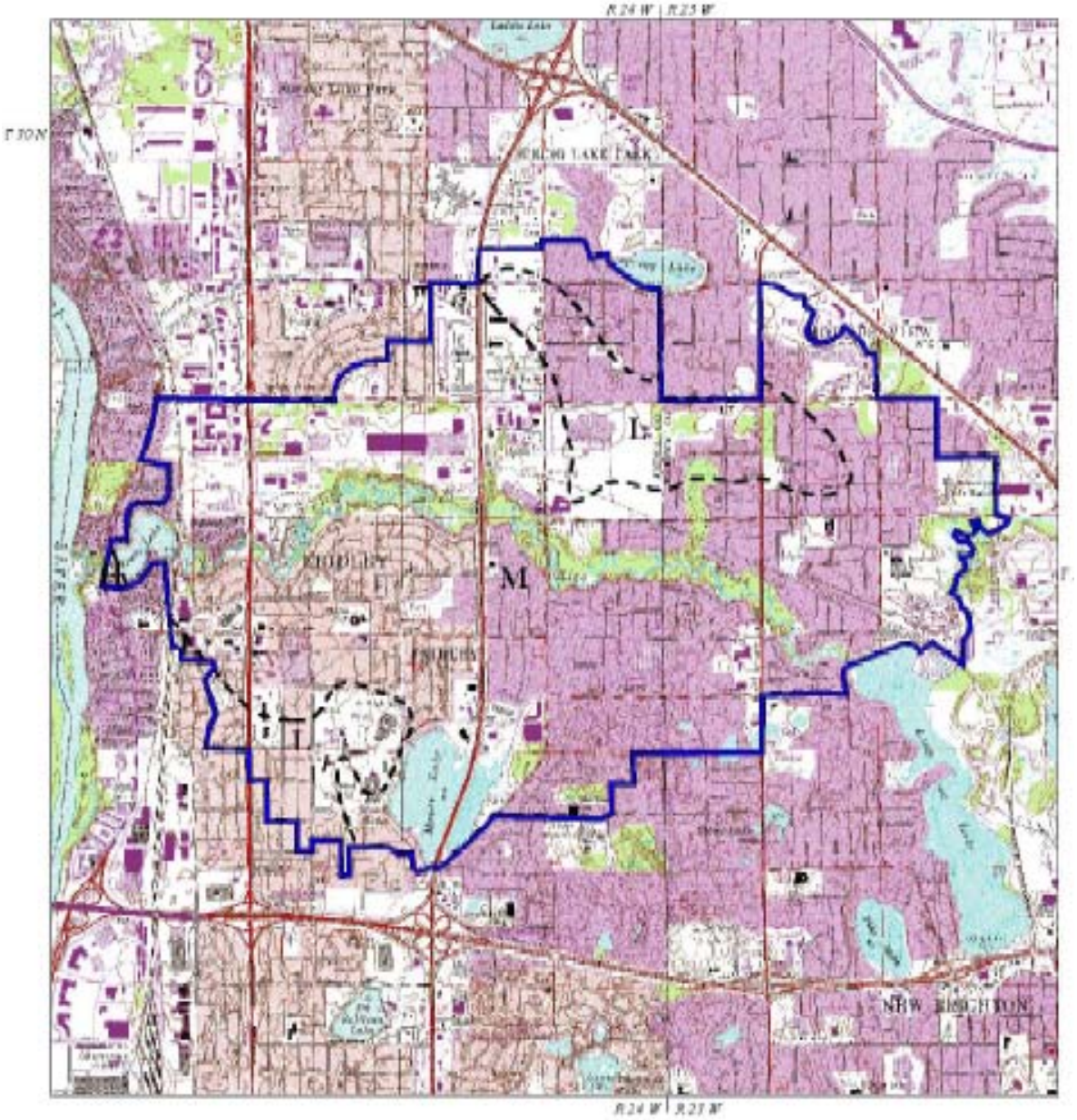
Well construction assessment - The water wells used by the Fridley meet current standards for construction and maintenance. These factors do not contribute to the susceptibility of the source water to contamination.
Well Sensitivity - Well sensitivity refers to the integrity of the well due to its construction and maintenance. It is based on the results of the well construction assessment. It can be one of the following:
(1) The well is susceptible to contamination because it does not meet current construction standards or no information about well construction is available, regardless of aquifer sensitivity.
(2) The well is not susceptible because it meets well construction standards and does not present a pathway for contamination to readily enter the water supply.
Aquifer Sensitivity - Aquifer sensitivity refers to the degree of geological protection afforded the aquifer(s) used by the public water supply.
High - The aquifer is considered to exhibit a high sensitivity to contamination because of the local geological setting.
Source Water Susceptibility - Source water susceptibility refers to the likelihood that a contaminant will reach the source of drinking water. It reflects the results of assessing well sensitivity, aquifer sensitivity, and water quality data.
High - The source of drinking water is considered to exhibit a high susceptibility to contamination because of the local geological setting.
Medium - The lateral extent of fine-grained materials between the land surface and the source of drinking water does not appear to be persistent throughout the source water protection area.
High - The source water is considered to be susceptible because of the tritium content of the well water in glacial deposits.

Past results indicate that at least one entry point from this community public water system may exceed the Radium Maximum Contaminant Level (MCL) of 5 pCi/L. Radium is a naturally-occurring contaminant and is found in southern and central Minnesota.

Contaminants of concern - The following statement summarizes the potential contaminants for which a source of drinking water may be at risk:

One or more contaminants regulated under the federal Safe Drinking Water Act for this public water supply system have been detected in the source water. However, the water supplied to users meets state and federal drinking water standards for potability. For further information, please contact the MDH representative listed at the beginning of this assessment.

Source Water Protection Area



Modified from Minnesota Department of Health web site:
http://mdh-agua.health.state.mn.us/swa/pdwgetswa.cfm?pwsid=1020031&office=0

Appendix D: Water Quality Report (2006)

Water Division Hydrant Flushing

To prevent mineral buildup in the City's water mains, the water department employees open and flush fire hydrants by letting water run until the water runs clear at each hydrant. When the hydrant is initially opened, the water may appear brown or orange due to iron build up in the the hydrant and water main.

During flushing, the hydrants are also inspected and repairs are made, if necessary.

Flushing creates a disturbance in water mains resulting in water discoloration. While the water is acceptable for drinking, there is a possibility clothes may be stained during washing.

Anyone who experiences water discoloration lasting longer than two days should call the City of Fridley Public Works Department at 572-3566 during regular business hours. (M-F 7:00 A.M. - 3:30 P.M.)

Fire hydrant flushing is done Monday through Friday in the spring of each year and is an effective tool for keeping the water fresh year round. Only "dead end mains" are flushed in the fall.

As crews flush water mains, we would also like to suggest that residents flush their water heaters to remove sediment build-up in the bottom of your water heater. The flushing procedure is very simple and can be accomplished within two hours. Here's how it's done.

1. Turn the water off at the water meter.
2. Turn gas heaters down to "pilot" or electric heaters to the "off"position.
3. Hook up a water hose to the tank drain outlet at the bottom of the water heater and place the other end of the hose by the floor drain.
4. Open a hot water tap at the laundry tub to allow air into the hot water pipes.
5. Open the hot water heater faucet and allow the tank to drain completely.
6. Once the tank has drained, turn the water back on by the meter. Let the tank fill until the water begins flowing out of the hose at the drain.
7. Allow the water to flow through the tank from 2-3 minutes; then shut the water off at the meter and allow the tank to drain out completely once again.
8. Repeat steps 6 and 7 until water flows clean at the drain.
9. Once the water flows clean again, shut the drain faucet off at the bottom of the hot water tank and remove the hose.
10. Turn the gas or electric heater controls back to the "normal" or "on" positions. Also be sure to turn the water back on at the meter to allow refilling of the tank and proper operation of your water system throughout your residence.
11. Open all hot water taps throughout the residence to flush out any sedimentation that may have become agitated throughout the hot water pipes during the tank flushing. Close all taps as the water flow clears.

By following these steps, not only will the hot water tank be cleaned out, but also the heater will run more efficiently and help conserve energy. Questions or concerns regarding this or other water projects may be directed to the water department, at the City of Fridley 572-3561.

Fridley Water Supply Sources

All water supplied by the City of Fridley is groundwater. The City operates 13 wells ranging in depth from 199 to 870 feet that draw water from the Quaternary Buried Artesian aquifer, the Jordan-Mt. Simon aquifer, the Prairie Du Chien group, the Mt. Simon aquifer, and the Prairie Du Chien-Jordan aquifer. The Jordan and Mt. Simon formations are deep, bedrock aquifers. Water in these units is located in the spaces between the rock grains (such as sand grains) or in the fractures within the more solid rock. Buried artesian aquifers are shallower aquifers composed of glacial sand and gravel, over which a confining layer of clay or clay till was deposited.

Some of Fridley's water is supplied to the system through an interconnection with the City of New Brighton. This water is also ground water from the Mt. Simon, Jordan, and Prairie Du Chien formations.

The interconnection between the two cities provides a back-up supply in case of a natural disaster that interrupts water service in one of the two communities.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 humans.

While Fridley's drinking water meets all EPA limits for particular contaminants, the State Department of Health has determined that one or more sources of our drinking water is potentially susceptible to contamination. If you wish to obtain the entire source water assessment regarding our drinking water please call 651-201-4670 during normal business hours. You can also view it online at www.health.state.mn.us/water/swp/swa.

Before a water source is used for a drinking water supply, it is tested for contaminants. These test results for Fridley water are in the Laboratory Results table in this report.

Explanation of this Report

In the past concerns, have been raised as to the language in this report. We would like you to know that the EPA and Minnesota Department of Health mandate specific language that must be included in the report.

As we present this report, we would like to take a moment to explain that before the City of Fridley can deliver water to your home, it must first be analyzed in certified laboratories that can detect trace amounts of contaminants. The Fridley test results for 2006 are shown in the table on the next page.

This year's report again delivers good news: **No contaminants were detected that exceeded EPA limits in drinking water in the Fridley systems testing.** Levels of contamination above EPA limits for radionuclides, however, were also detected in water that is occasionally supplied from the City of New Brighton. New Brighton is currently investigating a similar change to their chemical feed operation to remedy this problem. Since the City of Fridley supplements its own supply with water from the City of New Brighton, New Brighton results are also listed in the table.

The Safe Drinking Water Act (SDWA), promulgated by Congress in 1974, amended in 1986 and 1996, establishes a Federal program to monitor and increase the safety of the nation's drinking water supply. The SDWA authorizes the U.S.Environmental Protection Agency (EPA) to set and implement health-based standards to protect against both naturally occurring and man-made contaminants in drinking water. The EPA is also responsible for assessing and protecting drinking water sources; protecting wells and collection systems; making sure water is treated by qualified operators; ensuring the integrity of distribution systems; and making information available to the public on the quality of their drinking water.

Are Contaminants in Drinking Water a Concern for Me? *S*ome people may be more vulnerable to contaminants found 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/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Upgrade Report

Since our last water quality report, the City has completed three upgrades to the Commons Park Filtration Plant. By far the largest of these improvements was the replacement of filter media in two of the seven filters. Although the City has always met the Environmental Protection Agency's Safe Drinking Water Standards, these improvements will help us reduce the amount of iron and manganese in Fridley's drinking water. This, in turn, will help improve the taste and odor of the water as well as help to eliminate staining of fixtures and laundry in Fridley homes.

In addition to changing out the filter media, we also replaced the chemical feed equipment at the Commons Park Treatment Plant. This helps us reduce levels of radionuclides (a naturally occurring mineral in the ground) as well as provide more dependable application of chlorine, fluoride and ammonia.

The third change to the Commons Park Treatment plant was the upgrading of the electrical system and the SCADA control system. The later system is a monitoring and alarm system that helps us maintain control of water levels in our water storage tanks as well the operability of wells, water booster stations and other essential elements of our water system.

Bottled Water

Food and Drug Administration regulations establish limits for bottled water that must provide the same protection for public health as public water suppliers. Studies repeatedly show that bottled water is no safer than conventional tap water.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The table at the bottom of the next page enables the reader to view levels of contamination in Fridley drinking water and to compare these levels with standards set by the Safe Drinking Water Act. The results listed in the table were gathered between January 1 and December 31, 2006.

If you have questions about Fridley drinking water, or if you would like information on opportunities to participate in public meetings where decisions regarding water quality are made, please contact Kory Jorgensen at 763-572-3546.

EPA Drinking Water Regulations

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 EPA's Safe Drinking Water Hotline (800-426-4791).

EPA regulates about 90 substances that are potentially harmful to human health and have at least a reasonable possibility of being found in either water sources or finished drinking water. Our water is monitored for these regulated contaminants throughout the year. Tested substances fall into one of five different categories:

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 occur naturally 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.

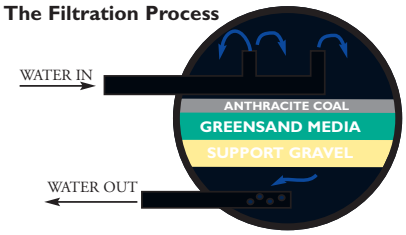
Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive Contaminants, which can occur naturally or be the result of oil and gas production and mining activities.

Radon

***Radon** is a radioactive gas which is naturally occurring in some groundwater. It poses a lung cancer risk when this gas is released from water into air (as occurs during showering, bathing, or washing dishes or clothes) and a stomach cancer risk when it is ingested. Because radon in indoor air poses a much greater health risk than radon in drinking water, an Alternative Maximum Contaminant Level (AMCL) of 4000 pCi/L may apply in states that have adopted an Indoor Air Program, which compels citizens, homeowners, schools and communities to reduce the radon threat from indoor air. For states without such a program, the MCL of 300 pCi/L may apply. Minnesota plans to adopt an Indoor Air Program once it's Radon Rule is finalized.

The Filtration Process



How to Interpret the Lab Data

Regulated substances have **Maximum Contaminant Levels (MCLs)** set by the EPA. This is the highest level of the substance allowed in drinking water. Some contaminants also have **MCL goals (MCLGs)**. This is the level of a substance where there is no known or expected health risk. MCLGs allow for a margin of safety. MCLs are set as close to MCLGs as feasible using the best available water treatment processes.

Unregulated substances do not have MCLs. They are assessed by comparing the detected amount to state standards known as health risk limits. If an unacceptable amount of any substance is ever found in the water, the City of Fridley will notify residents immediately of the problem.

While most contaminants are assigned a specific MCL, lead and copper are treated differently. Their MCL is called an **Action Level (AL)**. This is the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. Ninety percent of all samples tested must be below the action level. City of Fridley water has been found to be in compliance for both lead and copper.

Units of Measurement

pCi/L: picoCuries per liter, a measure of radioactivity.
ppm: parts per million (milligrams per liter).
ppb: parts per billion (micrograms per liter).
nd: Not Detected
MRDL: Maximum Residual Contaminant Level
MRDLG: Maximum Residual Contaminant Level Goal

Detected Substance (units) year tested-MCL (highest level allowed in water by EPA)-MCLG (level where there is no known health risk)	Results for Fridley Tap Water		Results of New Brighton Tap Water		Meets Federal and State Regulations	Typical Source of Substance in Drinking Water
	Level Found	Range of Detections	Level Found	Range of Detections		
Total Trihalomethanes (ppb) 2006 MCL:80 MCLG: 0	0.9	NA	0.8	NA	Yes	By-product of drinking water disinfection.
Xylenes (ppm) 2006 MCL: 10 MCLG: 10	—	—	0.001	nd-0.0007	Yes	Discharge from petroleum factories; Discharge from chemical factories.
Barium (ppm) 2006 MCL: 2 MCLG: 2	0.07	NA	0.1 (2003)	NA	Yes	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Nitrate as Nitrogen (ppm) 2006 MCL: 10 MCLG: 10	—	—	0.11	nd-0.11	Yes	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Fluoride (ppm) 2006 MCL: 4 MCLG: 4	1.29	0.95-1.7	1.04	0.91-1.1	Yes	State-required additive; erosion of natural deposits; fertilizer and aluminum factory discharge.
cis-1,2- Dichloroethylene (ppb) 2006 MCL: 70 MCLG: 70	0.9	nd-0.9	—	—	Yes	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland.
Lead (ppb) 2004 AL: 15 (90% of samples tested must be <15 ppb)	90% of samples were<4.0	0 out of 30 homes tested >15 ppb	90% of samples were <0.35	0 out of 30 homes tested 15 ppb	Yes	Corrosion of household plumbing systems; erosion of natural deposits.
Copper (ppm) 2004 AL: 1.3 (90% of samples tested must be <1.3 ppm)	90% of samples were <1.1	2 out of 30 homes tested >1.3 ppm	90% of samples were <0.35	0 out of 30 homes tested >1.3 ppm	Yes	Corrosion of household plumbing systems; erosion of natural deposits.
Sulfate (ppm) 2006 No established MCL or MCLG	18.6	7.41-18.6	22	nd-22	Yes	Erosion of natural deposits.
Sodium (ppm) 2006 No established MCL or MCLG	11	5.2-11	15	8.8-15	Yes	Erosion of natural deposits.
Alpha Emitters (pCi/L) 2006 MCL: 15.4 MCLG: 0	10	nd-10	13.6 (2005)	12.2-17.6	Yes	Erosion of natural deposits.
Combined Radium (pCi/L) 2006 MCL: 5 MCLG: 0	5.3	nd-5.3	6.1	NA	No****	Erosion of natural deposits.
Total Coliform Bacteria (samples) 2006 MCL: >1 present MCLG: found in no samples	1 Present*	—	—	—	Yes	Naturally present in the environment. *Follow up sampling showed no bacteria present
Trichloroethylene (ppb) 2006 MCL: 5 MCLG:0	0.5	nd-0.5	—	—	Yes	Discharge from metal degreasing sites and other factories.
***Radon (pCi/l) 2002	4320	—	4320	—	Yes	Erosion of natural deposits.
Chlorine (ppm) 2006 MRDL: 4 MRDLG: 4	1.38	1.1-1.8	0.33	0.2-0.5	Yes	Water additive used to control microbes.
trans-1,2-Dichloroethylene (ppb) MCL: 100 MCLG:100	0.1	nd-0.1	—	—	Yes	Discharge from industrial chemical factories.

****During the year, New Brighton had a violation for Combined Radium. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer. New Brighton is studying alternatives for corrective action.**