

**City of Rockville**

**WELLHEAD PROTECTION PLAN Part 2  
Amendment**



**Part 2:**

- **Potential Contaminant Source Management Strategy**
- **Impacts of Expected Changes to Land and Water Resources**
- **Issues, Problems & Opportunities**
- **Wellhead Protection Plan Goals**
- **Management Strategies**
- **Evaluation Plan**
- **Emergency/Conservation Plan**

**May 2012**

# TABLE OF CONTENTS

	<u>Page Number</u>
<b>I. PUBLIC WATER SUPPLY PROFILE</b>	<b>3</b>
<b>II. DOCUMENTATION LIST</b>	<b>4</b>
<b>III. EXECUTIVE SUMMARY</b>	<b>5</b>
<b>IV. CHAPTER 1 – Introduction, Data Elements, Assessment</b>	<b>10</b>
<b>V. CHAPTER 2 - Impact of Changes on Public Water Supply Well(s)</b>	<b>16</b>
<b>VI. CHAPTER 3 - Issues, Problems and Opportunities</b>	<b>19</b>
<b>VII. CHAPTER 4 - Wellhead Protection Goals</b>	<b>24</b>
<b>VIII. CHAPTER 5 - Objectives and Plans of Action</b>	<b>25</b>
<b>IX. CHAPTER 6 - Evaluation Program</b>	<b>39</b>
<b>X. CHAPTER 7 – Water Supply Contingency Plan</b>	<b>40</b>
<b>XI. APPENDIX A - Referenced Data for Part 2</b>	<b>47</b>

## List of Figures

Figure 1: Rockville Drinking Water Supply Management Areas (DWSMA)	7
Figure 2: Vulnerability of Rockville’s DWSMA 1	8
Figure 3: Vulnerability of Rockville’s DWSMA 2	9

## List of Tables

Table 1: Precipitation for the last five years	10
Table 2: Summary of Potential Contaminant Source Inventory	15
Table 3: Official Federal, State and Local Government Programs	22
Table C-1: Water Use Priority Grouping	41
Table E-1: Emergency Equipment & Materials Contacts	43
Table F-1: Emergency Procedural Operations	43
Table G-1: Agency Emergency Contact Listing	44
Table G-2: Critical Response Personnel	45

## **PUBLIC WATER SUPPLY PROFILE**

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## **DOCUMENTATION LIST**

<b>STEP</b>	<b>DATE PERFORMED</b>
<b>Part I Approval Notice Received from MDH</b>	<u>May 26, 2011</u>
<b>Scoping 2 Meeting Held (4720.5349, subp. 1)</b>	<u>June 20, 2011</u>
<b>Scoping Decision Notice Received (4720.5340, subp. 2)</b>	<u>June 27, 2011</u>
<b>Remaining Portion of Plan Submitted to Local Units of Government (LUGs) (4720.5350, subp. 1 &amp; 2)</b>	<u>March 12, 2012</u>
<b>Review Received From Local Units of Government (4720.5350, subp. 2)</b>	<u>May 15, 2012</u>
<b>Review Considered (4720.5350, subp. 3)</b>	<u>May 16, 2012</u>
<b>Public Hearing Conducted (4720.5350, subp. 4)</b>	<u>May 16, 2012</u>
<b>Remaining Portion WHP Plan Submitted (4720.5360, subp. 1)</b>	<u>May 25, 2012</u>
<b>Approved Review Notice Received</b>	<u>August 25, 2012</u>

## PART 2 EXECUTIVE SUMMARY

This portion of the Wellhead Protection (WHP) Plan for the City of Rockville includes:

- the results of the Potential Contaminant Source Inventory,
- the Changes, Issues, Problems and Opportunities,
- the Goals,
- the Potential Contaminant Source Management Strategy,
- the Emergency/Alternative Water Supply Contingency Plan, and
- the Wellhead Protection Program Evaluation Plan.

Part 1 of the wellhead protection plan presented the 1) delineation of the wellhead protection area (WHPA) and the drinking water supply management area (DWSMA) and 2) the vulnerability assessments for the City's wells and the aquifer within the two DWSMA's. The Plan was submitted to the Minnesota Department of Health (MDH) and approved February 22, 2010. The City of Rockville has two separate municipal well systems serving as the public water supply (PWS). The core system supplies the main body of the City of Rockville from Well 2 (118132) and Well 3 (595968). The other municipal well system was constructed and started supplying residents in Pleasant Lake's Brentwood Hills Addition with water in 2005 from Well 4 (721760) and Well 5 (721761) (Figure 1).

The vulnerability assessment for the aquifer within the DWSMA's was performed using available information and indicates that the aquifer used by the City is considered to have a mixed vulnerability to contamination in both DWSMA's. DWSMA 1 has two areas that have sufficient low-permeability materials between the surface and the aquifer to justify a moderate vulnerability rating. One of these areas is in the northeastern corner of the DWSMA around the municipal wells and the other is in the east central portion. The remaining area within DWSMA 1 is considered to have a very high vulnerability due to glacial erosion of the low-permeability layers and replacement with outwash sand and gravel (Figure 2). DWSMA 2 has a low vulnerability to the east and southwest where clay-rich material is sufficient, moderate in the east central and very high in the west central where the extent of the clay-rich material is unknown (Figure 3).

Also contributing to the high vulnerability rating is isotopic analyses that show the aquifer is in direct contact with local water bodies along with tritium values of 15.8 Tritium Units (TU) for Well 2, and 12.3 TU for Well 5. When tritium is found in water it suggests a relatively rapid recharge rate to the aquifer ('young water'). Principal potential contaminant sources to the aquifer were presented to city staff during the Second Scoping meeting held with the MDH, on June 20, 2011.

Review of well construction records and a vulnerability assessment from Part 1 of the WHP Plan found Well 2 is vulnerable to contamination since it is unclear if the annular space between the outer and inner casings were properly grouted when the original well was constructed, Well 3 is not considered vulnerable and Wells 4 and 5 are considered vulnerable due to the presence of high tritium values.

The information and data contained in Chapters 1-4 of this part of the WHP Plan (hereafter referred to as the Plan) support the approaches taken to address potential contamination sources that have been identified as possibly affecting the aquifer used by the public water supply. The City encompasses the land where both DWSMA's are located and administers land use controls around these boundaries. Land use is a mix of residential and agricultural in DWSMA 1 and primarily agricultural in DWSMA 2 which has two landowners and only one residence. The Potential Contaminant Source Inventory (PCSI) indicates limited contaminant sources located in the core portion of the City since it is primarily residential, on City water and sewer and natural gas. Chapters 1-4 illustrate the nature of the DWSMA's and support the management strategies developed in Chapter 5.

Chapter 1 presents the required data elements indicated by MDH in the Scoping 2 Decision Notice that are required to be addressed. Pertinent data elements include information about the geology, water quality and water quantity. The data elements and information supplied in Part 1 of the WHP Plan are based on the assessment that the aquifer providing drinking water for this City has a mixed vulnerability (moderate to very high) to contamination from land uses, such as other wells that penetrate the same aquifer and land uses that either store liquids in tanks or dispose of liquids below the land surface, transportation corridors, quarry or mining and agricultural practices.

Chapter 2 addresses the possible impacts that changes in the physical environment, land use, and water resources have on the public water supply. There is the possibility of commercial expansion outside the DWSMA and residential growth, but there are no anticipated changes greater than the five percent average city growth within the next ten-year period when this Plan is required to be updated. The City of Rockville has evaluated the support necessary to implement its wellhead protection plan.

Chapter 3 assesses the problems and opportunities concerning land use issues relating to the aquifer, well water, and the DWSMA and those issues identified at public meetings. The mixed vulnerability status of the aquifer and the good quality of water currently produced by the City's wells leaves these major concerns to be addressed by this plan: 1) other wells located within the DWSMA that could become pathways for contamination to enter the aquifer; 2) the pumping effects of high-capacity wells that may alter the boundaries of the delineated WHPA; 3) registered underground or above-ground storage tanks that may release contaminants into groundwater 4) Class V-type wells; 5) potential for hazardous spills along major corridors throughout the DWSMA; 6) private storage tanks and subsurface sewage treatment systems (SSTS); 7) stormwater issues and 8) agricultural practices.

High priority issues in DWSMA 1 are 1) the stormwater ponding around Well 2 Emergency Response Area (ERA) which is defined as the one-year travel time for aquifer water to reach the well, 2) the State Highway 23 corridor that crosses through Well 3 ERA and 3) active private wells and unused/unsealed wells since they create a conduit directly to the aquifer used as a PWS.

Chapter 4 outlines the drinking water protection goals that the public water supplier (PWS) would like to achieve with this Plan. In essence, the PWS would like to maintain or improve the present level of water quality by providing ongoing collection of data and increasing public awareness of potential groundwater problems.

Chapter 5 lists the objectives and action plans for managing the potential sources of contamination identified. Actions aimed toward educating the general public about groundwater issues, gathering information about other wells, and collecting data relevant to wellhead protection planning are the general focus.

Chapter 6 contains a guide to evaluate the implementation of the identified management strategies of Chapter 5. The wellhead protection program for the City of Rockville will be evaluated on an annual basis prior to the City's budgeting process.

Chapter 7 is an Emergency/Contingency Plan. This is intended to address the possibility that the water supply system is interrupted due to either an emergency or drought. The chapter contains details about the water supply distribution system, emergency contact numbers, equipment listings as well as other information to assist the City of Rockville in responding quickly and effectively in emergency situations.

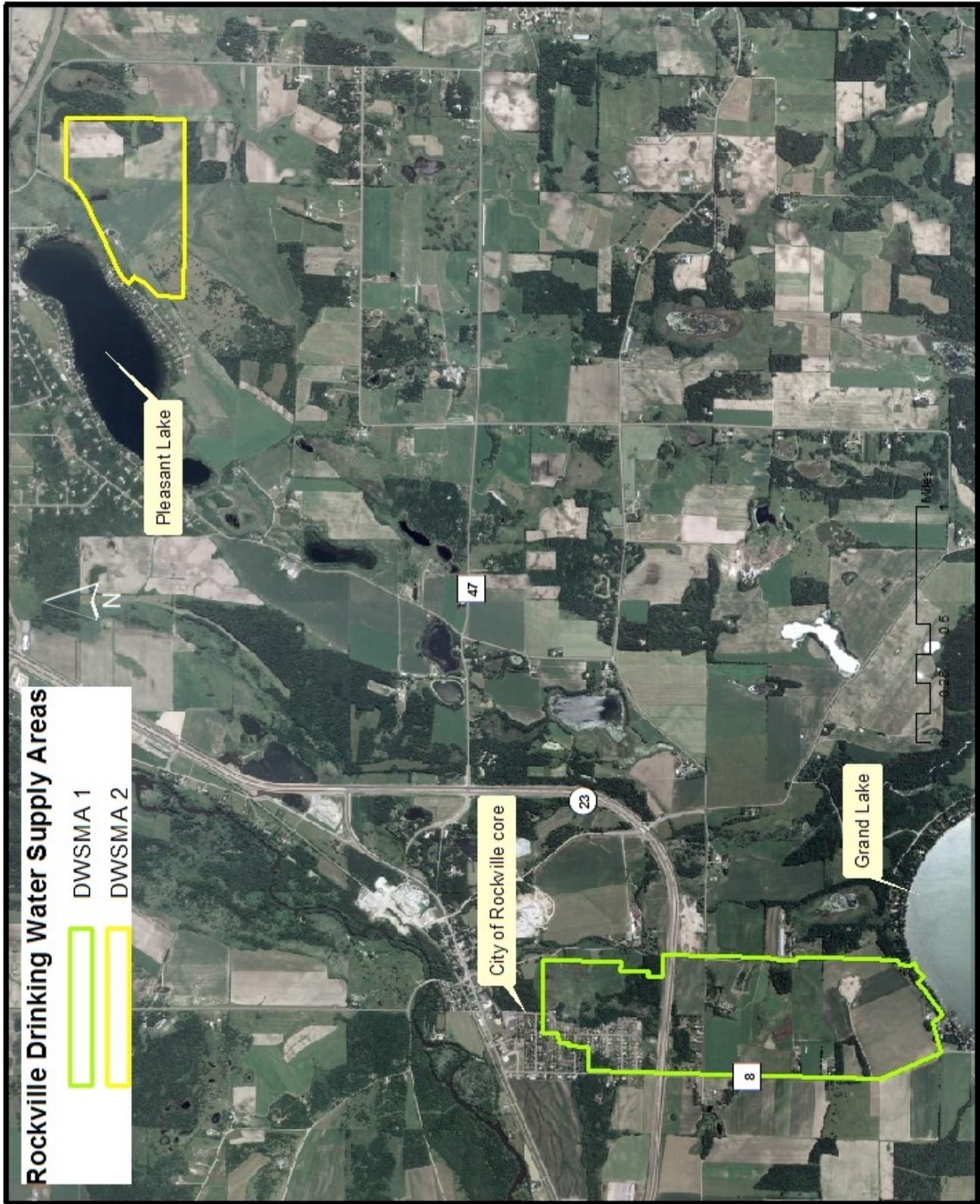


Figure 1: Drinking Water Supply Management Areas (DWSMA) for the City of Rockville.

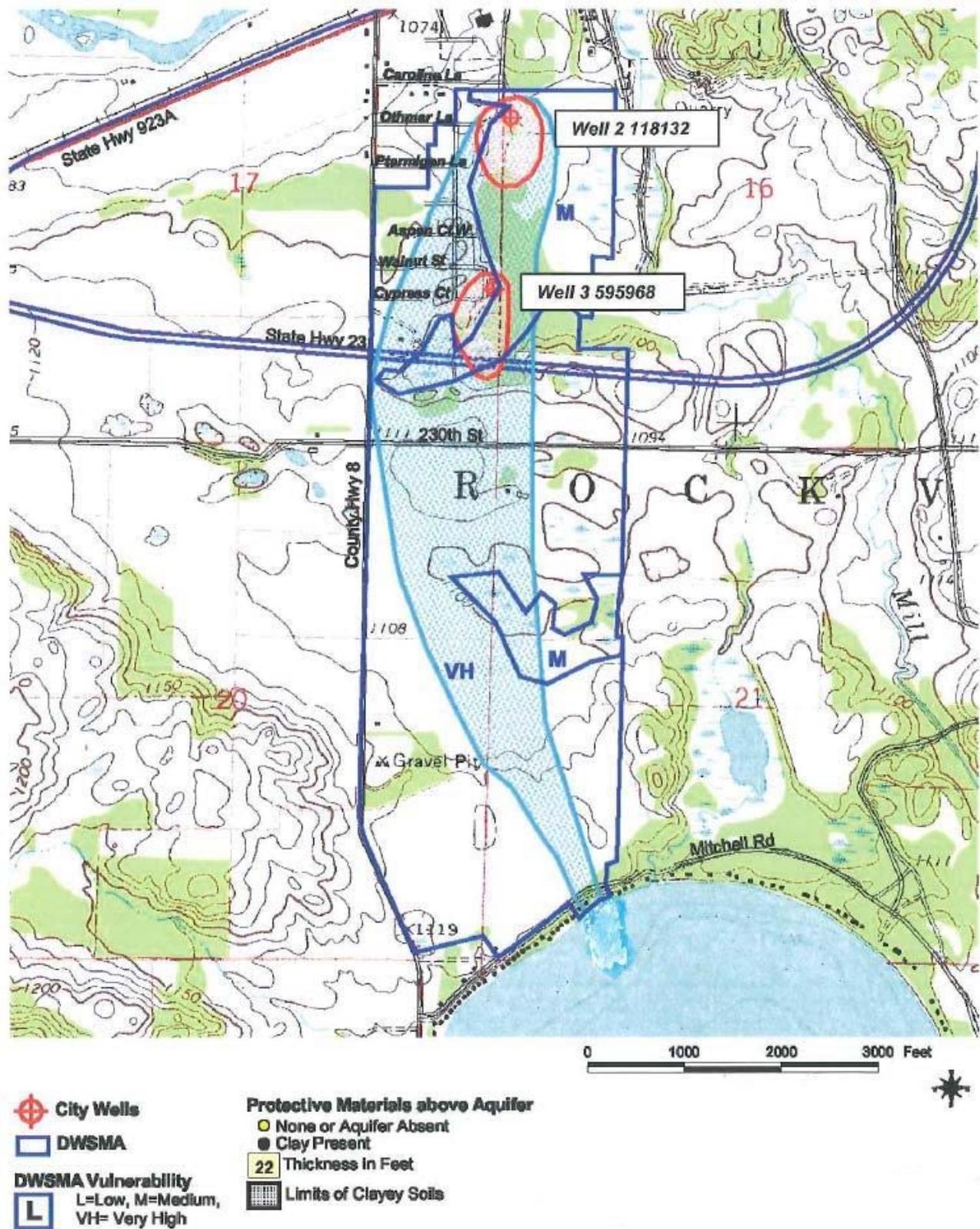


Figure 2: Vulnerability of the Rockville DWSMA 1. (Modified from Part 1 WHPP)

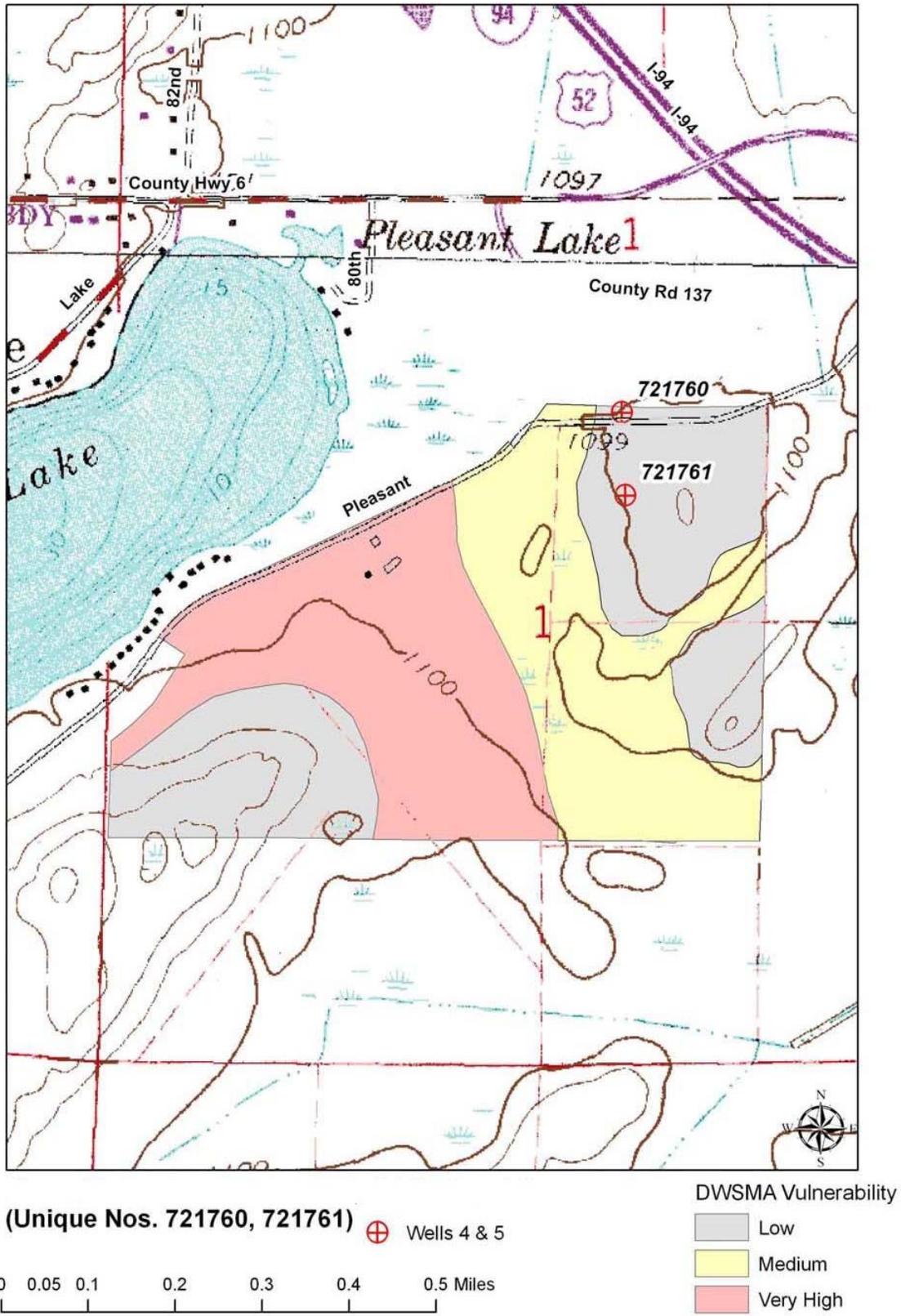


Figure 3: Vulnerability of the Rockville DWSMA 2. (Modified from Part 1 WHPP)

# CHAPTER ONE

## DATA ELEMENTS, ASSESSMENT (4720.5200)

**INTRODUCTION:** The City of Rockville has two municipal well systems serving as the public water supply (PWS). The core system supplies the main body of the City of Rockville from Well 2 (118132) located in Section 16 and Well 3 (595968) located in Section 17 of Township 123 North, Range 29 West in eastern Stearns County. The other municipal well system was constructed and started supplying residents in the Pleasant Lake area, Brentwood Hills Addition, with water in 2005 from Well 4 (721760) and Well 5 (721761) located in Section 1 of Township 123 North, Range 29 West in eastern Stearns County (Figures 1-3). The City undertook this project within the city limits to curtail environmental problems associated with high population density.

Part 1 of the Wellhead Protection Plan determined that both of the Drinking Water Supply Management Areas (DWSMA) for the City of Rockville have a mixed vulnerability to contamination. DWSMA 1 contains the southern residential portion of the main part of the city then extends south through a mix of residential and agricultural land to Grand Lake. This DWSMA exhibits a moderate vulnerability in isolated southern and northern portions where sufficient clay-rich material above the aquifer is present and high to very high vulnerability in the majority of the DWSMA where the clay-rich material has been eroded and filled with sand and gravel and / or the depth to the aquifer is considered to be less than twenty feet (Figure 2).

DWSMA 2 lies to the southeast of Pleasant Lake, is mainly agricultural and also exhibits a mixed vulnerability with low vulnerability to the east and southwest where clay-rich material is sufficient, moderate in the east central and very high in the west central where the extent of clay-rich material is unknown (Figure 3).

### I. REQUIRED DATA ELEMENTS

#### A. Physical Environment Data Elements

1. Precipitation – Five year average annual precipitation is 31.24 inches per year.

Tritium is the result of nuclear testing that occurred in the early 1950’s and was detected in water samples taken from Well 2 (118132) and Well 5 (721761), at 15.8 and 12.3 tritium units (TU) respectively. When found in water it suggests a relatively rapid recharge rate to the aquifer (‘young water’). Therefore, land activities require evaluation since we must assume that areas exist where the infiltration of precipitation along with potential contaminants can reach the aquifer within years to decades.

**Table 1:** Five-year historical average rainfall is 31.24 inches per year. Data gathered from the nearest gauging station Twp 123N Rng 30W Sec 15 (Cold Spring) Minnesota Climatology website.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2006	0.20	0.37	1.24	4.27	1.40	2.94	1.45	3.80	5.49	0.55	0.36	1.57	23.64
2007	0.22	1.62	3.15	2.15	1.51	1.63	1.25	4.82	4.06	5.09	0.05	1.19	26.74
2008	0.02	0.60	1.05	3.88	3.47	4.04	2.50	4.28	3.30	2.93	2.12	1.77	29.96
2009	0.75	0.99	4.62	2.06	1.38	5.20	3.31	8.78	1.05	7.33	0.35	1.98	37.80
2010	0.76	1.30	1.43	1.33	2.87	8.44	3.11	6.54	4.35	4.00	1.04	2.89	38.06

2. Geology – Part 1 of the Plan summarizes the geology of this area as low rounded hills of glacial till and flat plains that are channels of glacial outwash in some cases up to 100 feet thick. Most surface water features are in direct contact with the surficial aquifer and there is a likely connection between this aquifer and the one used by the City as a public water supply based on cross-sections in Part 1 and geochemistry of the waters. The aquifer used by the City is a buried sand and gravel layer 25 feet thick, confined by a clayey-till that thins to the east significantly beyond Wells 4 and 5. The extent of this confining layer is not well defined in areas, such as the Pleasant Lake area west of the City wells where the vulnerability was determined to be very high. Tritium levels and other geochemical indicators strongly suggest that water infiltrates from the surface to the aquifer in a matter of years to decades. A better understanding of the geology and areal extent of the clayey-till confining unit are essential in better defining the aquifer vulnerability on a regional scale.

3. Soils -- Soils play an important role in contaminant attenuation and slowing the infiltration of harmful contaminants into an aquifer. Cross sections in Part 1 of the Plan show a clay-till cap near the land surface in the central and eastern portions of DWSMA 1. These areas are typified by Seeleville, Markey and Cathro muck and Regal loam which are primarily organic material over glacial till or outwash. These soils are poorly to very poorly drained and are generally in direct contact with the surficial aquifer. The till has been eroded in much of the remaining portions of DWSMA 1 due to glacial advance, retreat and meltwaters eroding the clay-rich till replacing it with outwash sands and gravels. The predominant soil types in these areas (the northern and southern cropland areas) are Hubbard loamy-sand and Estherville sandy-loam that are deep and well to excessively well-drained (Exhibit 1).

The cross sections from Part 1 show some areas within DWSMA 2 are also covered with a clay-rich till with soils of the Flak and Cushing sandy-loams in the northeastern and southeastern portions respectively which are moderately to well-drained. The cropland is primarily composed of Estherville sandy-loam and Osakis loam which are moderately to excessively well-drained soils.

Although all these soils have a moderate ability to attenuate certain contaminants, a rapid infiltration rate in well to excessively well-drained soils, could override the soils retention capacity in the advent of a large volume contaminant influx. Private eroding lands that are causing sedimentation problems are protected under the Freedom of Information Act. No widespread sedimentation problems are known to exist within either DWSMA.

4. Water Resources – This data element applies as it relates to future groundwater uses that may influence the ability of the aquifer to yield water to the public water supply. Increased water usage may result in a reduction of aquifer yield or increase the likelihood that contaminants of human or natural origin may affect the quality of the drinking water.

At this time the aquifer used for the Public Water Supply (PWS) has sufficient volume to maintain present day usage. Other high capacity wells located in close proximity could alter the City well capture zone and available water volume. Isotopic analyses reveal that the aquifer is in contact with local water bodies. Recharge is predominantly from infiltration into the aquifer with wetland areas serving as a discharge (Exhibit 2). Mill Creek, Grand Lake and Pleasant Lake are Department of Natural Resources (DNR) public, protected waters. No Federal Emergency Management Agency designated floodplains or public drainage systems are located within either DWSMA. Groundwater and surface water flow direction extends from Grand Lake to the north-northwest for DWSMA 1 and to the northeast for DWSMA 2.

Shoreland classification for Grand Lake is General Development and Pleasant Lake is Recreational Development. Changes in setback requirements is the primary difference.

## **B. Land Use Data Elements**

1. Land Use – The City of Rockville encompasses the land where the DWSMA’s are located and administers land use controls within these boundaries. Local land-use maps are included as Exhibit 3.0-3.1 and a future land-use map was constructed by the City and is included as Exhibit 3.2. The City of Rockville completed a Comprehensive Plan in 2004. The plan states that the City will encourage the preservation of agricultural lands and retain a rural, small town nature by utilizing landscaping techniques that preserve the natural vegetative, woodland and wildlife states. The plan suggests a minimum lot size of 2.5 acres in DWSMA 1.

The south portion of the main body of the City is contained within DWSMA 1 and is zoned residential (Exhibit 4). There are a few lots on the southern part of the DWSMA along Grand Lake that are also zoned as residential. The remaining area is primarily agricultural and zoned as Ag-40, which allows one building site per 40-acre parcel. DWSMA 2 is all zoned as Ag-40 and only contains two property owners with one of those having a residence.

Due to the information contained in Part 1, which indicates that the public water supply (PWS) has a mixed vulnerability to certain land use activities, an inventory of other wells, chemical and petroleum storage tanks, Class V wells, leaking underground and registered storage tanks, pipelines, spill locations, quarries or mining, agricultural practices and travel corridors are required.

The Wellhead Protection Team and the consultants conducted a potential contaminant source inventory (PCSI). A spreadsheet and map of potential contaminants identified in the two DWSMA’s are presented in the Appendix as Exhibit 5. Chapter 5 will determine how the City will address these problems and minimize any threats during the implementation phase.

Land-use and management of the Inner Wellhead Management Zone (IWMZ, defined as a 200’ radius around each of the City of Rockville’s Wells) were discussed and considered in the development of this Plan. This is done to identify the highest priority issues with the most immediate consequences or impact upon the public water supply wells. The City with assistance from the Minnesota Rural Water Association (MRWA) has updated the IWMZ forms as part of Plan preparation. No major concerns were identified within these areas and management strategies to address any potential contaminants found are addressed on the respective IWMZ form (Exhibit 6). City staff will continue to monitor changes within the IWMZ as part of plan implementation. This information is used to support Chapter 7, which details an emergency/conservation plan.

2. Public Utility Services - Records of well construction and maintenance apply to this portion of the Plan due to the information provided about the wells and the quality and quantity of the water supplying the City. Well 1 was constructed in 1968 and sealed in 1999. A sealing record (Number 00232150) was found and it was sealed according to state standards and is not considered a threat. City Well 2 was reconstructed in 1975. There is no record of the casing being grouted to today’s standards. Therefore, the well is considered to be vulnerable since there is a potential for contaminants to infiltrate down the outside of the casing and into the aquifer. Well 3 was constructed in 1997 and is not considered vulnerable. Wells 4 and 5 were

constructed in 2005 and are considered vulnerable due to the uncertainty of the confining-unit continuity in that area and the presence of tritium indicating rapid infiltration rates.

There are 20 private household wells and 26 private sand-point wells used for irrigation of lawn and gardens. Most of the household wells were drilled within the last 20 years and assumed to be constructed in a way that prevents infiltration around the outside of the casing.

Development and maintenance of sand-point wells are often conducted by the homeowner and presumed to be shallow. Although driven into the surficial aquifer, contaminants migrating down or around these wells still have the potential of reaching the aquifer used by the City due to the unknown consistency of the confining unit and isotopic and geochemical analyses suggesting that the surficial aquifer has some influence upon the buried sand and gravel aquifer. Strategies to accommodate these unknowns are included in Chapter 5.

The infrastructure contains no interconnects. Infrastructure maps are available at City Hall and included as (Exhibit 7). No public drainage system map exists. One oil pipeline exists within DWSMA 1 (Exhibit 5).

Wastewater is pumped to the Cold Spring wastewater treatment plant via several lift stations. All lift stations are outside of the two DWSMA's. However, the lift station at Pleasant Lake is in close proximity to Well 4 and precautions for overflows need to be investigated.

### **C. Water Quantity Data Elements**

1. Surface Water Quantity – The local water bodies have a relatively strong influence on the aquifer suggesting that there is a significant hydraulic connection. At this time there are no perceived problems with water quantity. Grand Lake Ordinary High Water Mark (OHWM) is 1105.36 ft., Pleasant Lake OHWM is 1094.5 ft. no Ordinary Low Water Marks could be found. No record of permitted withdrawals or protected levels or flows have been established. No known water use conflicts exist.

2. Groundwater Quantity - Groundwater levels are adequate for the withdrawal amounts that the City of Rockville currently is permitted for under the groundwater appropriations program that is administered by the DNR. There are currently no other high-capacity wells, environmental boreholes or known water use conflicts within the DWSMAs. At this time, there appears to be sufficient groundwater quantity, based upon the existing pumping capacity of the aquifer used by the City. Increased water usage may result in a reduction of aquifer yield or increase the likelihood that contaminants of human or natural origin may affect the quality of drinking water.

### **D. Water Quality Data Elements**

1. Surface Water Quality –At this time surface water quality in Pleasant Lake is considered good and no threats are foreseen. Grand Lake is listed as an impaired water for mercury. Continued monitoring and isotopic analyses should be conducted on City wells and local surface water bodies to gain knowledge of geochemistry and the potential of surface water impacting the aquifer.

Mill Creek was placed on the impaired waters list in 2006 by the Minnesota Pollution Control Agency, (MPCA) for elevated levels of the indicator pathogen-bacteria (*E. coli*). The Sauk River Watershed District (SRWD) initiated a Total Maximum Daily Load (TMDL) study that identifies possible point and non-point sources contributing to these elevated levels, and estimates a TMDL that the creek can maintain. Once approved by Environmental Protection

Agency (EPA), the SRWD plans to secure grants to develop and implement strategies that reduce the pollutant loading to impaired areas of their district. The City will cooperate with SRWD to stay informed and provide any aid deemed feasible to move this project forward.

2. Groundwater Quality -Existing information consists of isotopic and chemical analyses and indicates that the aquifer used by the City of Rockville is predominantly recharged by precipitation infiltration and seepage from the surrounding surface water bodies. Tests conducted by MDH have revealed tritium values of 15.8 TU for Well 2 and 12.3 TU for Well 5, indicating the main component recharging the aquifer used by the City of Rockville is 'young' water (water that infiltrated after the 1950's atomic testing) and therefore the aquifer may be directly impacted by land use activities.

As stated above, both DWSMAs consist primarily of agriculture land and DWSMA 1 contains the southern portion of the core City of Rockville. Increased development should be investigated carefully. No known groundwater contamination studies or contamination spills are known to exist. Additional groundwater quality information should be collected over the ten-year life of the Plan. Although there are presently no signs of increased nitrate levels, the nitrate probability is high in most of DWSMA 1 and medium to high in DWSMA 2 (MDH Nitrate Probability Map: [www.health.state.mn.us/divs/eh/water/swp/nitrate/stearnsmap.pdf](http://www.health.state.mn.us/divs/eh/water/swp/nitrate/stearnsmap.pdf)). Changes in the general chemistry of the well water may indicate that the aquifer is receiving recharge from different pathways, such as improperly constructed or sealed wells or through different geological materials.

## **II. ASSESSMENT OF DATA ELEMENTS**

**A. Use of the Well** - The City of Rockville currently has all connections metered (242 for the core system and 27 for the Pleasant Lake system). High volume users are J&T Trucking, Stonehedge Apartments and the Independent School District #750. There are some light industrial users of city water. The City has two water towers in the main portion of the City. The main storage is a 150,000-gallon tower. A 50,000-gallon core tower by the elementary school is used as a supply for fire protection in the summer, otherwise not utilized. The City also has one water tower in the Pleasant Lake water system with a storage capacity of 100,000-gallons. The average usage for all four wells online from 2006-2008 was 24.2 million gallons per year.

**B. Wellhead Protection Area Delineation Criteria** - See Part 1 of this Plan for documentation regarding how the following delineation criteria were applied for determining the boundaries of the WHPA:

1. Time of Travel – 10 years
2. Flow Boundaries – geologic information
3. Daily Volume – provided by the City of Rockville
4. Ground Water Flow Field – delineation method
5. Aquifer Transmissivity – Well 4 and 5 specific capacity tests

**C. Quality and Quantity of Water Supplying the Public Water Supply Well** - Water quality monitoring results indicate no evidence of contamination from 1) human-origin, such as fuel and fuel break-down products, pesticides, or commercial fertilizer, or 2) naturally-occurring contaminants such as arsenic and boron. At this time, problems with water quality or quantity are not an issue. The City of Rockville has water quality that meets or exceeds standards in the Federal Safe Drinking Water Act and publishes the annual Consumer Confidence Report (Exhibit 8) in the Cold Spring Record.

**D. The Land and Groundwater Uses in the DWSMA** - Proactive management of existing wells/boreholes or unsealed or unused wells if discovered, storage tanks and continued utilization of Best Management Practices (BMP's) on local agricultural lands are of immediate concern due to the mixed vulnerability rating of the aquifer. The management strategies selected and documented in Chapter 5 of this Plan will focus on activities that have the most potential to impact the aquifer used for the PWS. Land use within the DWSMA is monitored by the City and typified by zoning ordinances (Exhibit 4).

The following Table summarizes the Potential Contaminant Source Inventory identified by the Wellhead Protection Team within the two DWSMA's. See Exhibit 5 for more information.

**Table 2: Potential Contaminant Source Inventory Summary**

Potential Contaminant	DWSMA 1	DWSMA 2	Priority Level
Municipal Wells	2	2	H
Old Municipal Wells	1-Sealed 1999 (Number 00232150)	0	L
Private Household Wells	20	1	H
Private Sand Point Wells	26	0	H
Unused/Unsealed Wells	0	0	H
Exploratory/Test Holes	0	0	L
Private SSTS	7	0	M
Registered Storage Tanks	0	0	L
Leaking Underground Storage Tanks	0	0	H
Private Fuel Storage Tanks	0	0	M
Agricultural Storage Tanks	0	0	L
Major Travel Routes	2- St Hwy 23, CR 8	1- Pleasant Rd	H
Pipelines	1- NuStar Energy Inc	0	H
Pits/Mines	1 Gravel Pit	0	H
Feedlots	3	0	M

Priority Level: H = High, M = Moderate, L= Low

- No leaky or registered storage tanks were identified within the DWSMA's
- No private storage tanks were identified in either DWSMA
- No hazardous waste generators were identified

Priority Level was determined by the Wellhead Protection Team and used as a guideline for assembling the Management Strategies in Chapter 5.

## CHAPTER TWO

### IMPACT OF CHANGES ON PUBLIC WATER SUPPLY WELLS (4720.5220)

#### I. CHANGES IDENTIFIED IN:

- A. Physical Environment** - Large-scale changes in the physical environment within the DWSMA are not anticipated during the 10-year period that this Plan is in effect. The geologic conditions that protect the water supply establish a primarily 'young water' component. Therefore, changes in the physical environment could affect the aquifer within the DWSMA. Direct routes through these geologic conditions, or the confining layer over the city wells (e.g. unidentified unused/unsealed wells or removal of the confining layer through excavation or quarry) could potentially impact the aquifer and groundwater quality.
- B. Land Use** - Anticipated changes of land use in the City of Rockville DWSMA 1 will most likely consist of isolated new residential development on the east and southwest portions of the city and around Grand and Pleasant Lakes. There is also the potential of development in the form of conversion of larger portions of agricultural lands into residential properties. The industrial park is located outside the DWSMA and is not considered a problem at this point. Future residential and commercial growth will be considered in relationship to the impact on the public water supply wells and aquifer. The City manages growth and development through local land-use controls and utilizes the Comprehensive Plan to guide future developments. The City presently has a fairly restrictive landscape ordinance but with increased residential development the City may need to modify ordinances that not only satisfy the aesthetics of rural living but also aid in the protection of the aquifer by reducing the infiltration of fertilizers, herbicides and pesticides.

Presently, the City of Rockville requires new property owners to hook up to municipal water/sewer where available (Basic Code Ordinance 52.06 and 51.018 and Ordinance 2003-08A Section 1.03). Constructing additional wells into the aquifer can alter the Wellhead Protection Area (WHPA), or draw naturally-occurring or human-caused contaminants towards the PWS wells. The City will consider adding or modifying present ordinances in the future to address issues that could impact the PWS.

Presently farming practices have not influenced the water quality, either through good stewardship and/or the geologic conditions ability to attenuate excess feedlot runoff, fertilizer, herbicide or pesticide. Most likely it is a combination of both. The City will work with Stearns County Soil and Water Conservation District (SWCD), Stearns Natural Resource Conservation Service (NRCS) and local landowners to encourage the use of BMPs and possible adoption of federal programs that take land out of production such as Conservation Reserve Program (CRP), Environmental Quality Incentives Program (EQIP) or other programs that decrease the influence of agricultural practices upon the water quality.

There are 3 feedlots of concern within DWSMA 1. Through ordinances the City has established a 700-foot buffer around feedlots which requires that no new homes can be built within this area. Management strategies concerning feedlots will be addressed in Chapter 5.

The high-traffic travel corridor of State Highway 23 runs through the middle of DWSMA 1 and the ERA of Well 3. The City will attempt to coordinate a meeting with other communities along this corridor, early response personnel, MPCA and MnDOT. The purpose of the meeting will be to explain the high vulnerability in this area, ensure that requests of lining the ditches with low permeability materials was completed when the highway was upgraded and explore ways to reduce response times by all agencies in emergency spill situations. This decreases the chances of contamination from spills entering and altering the surface water component that attributes significantly to the aquifer.

- C. Surface Water** - There is a significant hydraulic connection between surface waters of the Grand and Pleasant lakes, Mill Creek and local wetland areas with the aquifer used by the City as a drinking water source. Changes to the conditions of these surface waters could have a direct impact on the quality or quantity of the PWS. Isotopic and other chemical analyses should be continued in the future to monitor and ensure a continued good water quality.
- D. Groundwater** - The public water supply wells have historically provided groundwater of excellent quality and quantity. Meters are installed and water quantity is not an issue at this time. The City will continue to promote water conservation. At this time the City does not foresee any large developments within the 10-year life of the Plan.

## II. IMPACT OF CHANGES

- A. Expected Changes in Water Use** - The City does not anticipate that its water use will increase by more than five-percent during the first five years that this Plan is in effect. The Wellhead Protection Team has reviewed the expected use and significant changes in water use patterns will be addressed in the planning process.
- B. Influence of Existing Water and Land Government Programs and Regulation** – Cities can regulate the use of new wells within the city limits. There may be existing land-use ordinances by the City of Rockville that could be revised in the future to address new private wells, storage tanks or Class V wells within the DWSMA. The Stearns County SWCD and the SRWD has been supportive of Wellhead Protection Plans and manages state funds for the sealing of unused/unsealed wells within Wellhead Protection Areas (WHPA) on a priority basis.

The City of Rockville is reliant on the MPCA’s authority for the permitting of above and below-ground storage tanks. Zoning within the DWSMA is presently residential or agricultural and registered storage tanks are not likely to be approved in these areas.

- C. Administrative, Technical, and Financial Considerations** - The City of Rockville Wellhead Protection Team were active in the process of developing this Plan. Many of the activities during the planning process have been accomplished through efforts of this group, with assistance from studies provided by other units of government. For this Plan to be effective:
  1. The City will continue to raise public awareness of the issues affecting the quality and quantity of its drinking water supply through public educational programs.
  2. Administrative duties will remain with the Wellhead Protection Manager who will report to the City Council, coordinate implementation of wellhead protection management action plans, and conduct regular meetings.
  3. Implementation of Wellhead Protection activities will be supported by an existing \$5000 Implementation Grant and Education, and a \$2000 Annual line-item for WHP. Other

sources of funding or in-kind services to achieve the goals in Chapter 4 include 1) the Board of Water and Soil Resources (BWSR) cost-share program, as administered by the Stearns County SWCD to provide financial assistance for sealing unused/unsealed wells / boreholes with a priority on WHPA's; 2) the State Well Code administered by MDH for sealing unused/unsealed wells, constructing new wells, and setting the requirements for well sealing if this becomes necessary; 3) the Local County Water Management Program through the Stearns County SWCD and the County Environmental Services Department (ESD) will provide technical assistance in agricultural, feedlot and private septic system management; 4) the Board of Water and Soil Resources (BWSR) cost-share program, as administered by the Stearns SWCD, the SRWD and the Minnesota Department of Agriculture (MDA) to potentially provide financial assistance and cost-share opportunities for encouraging agricultural BMP's; 5) the SRWD through grants from BWSR and the United States Department of Agriculture for grants and technical support in implementing the Mill Creek TMDL initiatives to improve water quality and eventually remove the creek from MPCA's Impaired Waters list; 6) MPCA for technical support of stormwater management, SRWD for funding of rain gardens and barrels and 7) the MDH Source Water Protection Unit Grant Program that concentrates on competitive and implementation grants for aiding cities in achieving implementation of high priority management strategies for protection of the PWS.

4. The costs of implementing Wellhead Protection activities will be reviewed annually prior to the City's budgeting process to determine whether the estimated costs match 1) the scope of the management practices identified in this part of the Plan, 2) the actual costs to monitor changes in the status of the wells. If necessary the City of Rockville will work with the MDH to adjust the plan implementation schedule and to determine the availability of state or federal funding for offsetting increased costs to Plan implementation.

## CHAPTER THREE

### ISSUES, PROBLEMS, AND OPPORTUNITIES (4720.5230)

#### I. LAND USE ISSUES, PROBLEMS, AND OPPORTUNITIES RELATED TO:

**A. The Aquifer** – The mixed vulnerability (low to very high) assigned to the aquifer, identified as the source of the City of Rockville’s water supply is vulnerable to land use activities for the potential contaminants identified as part of this Plan.

**B. The Well Water** - The potential contaminant source inventory performed by the Wellhead Protection Team indicated the types of wells, boreholes, tanks and other sources of concern (Exhibit 5). Presently the main focus is on agricultural practices, stormwater issues, transportation corridors and private well / subsurface sewage treatment systems (SSTS).

The placement of additional high-capacity wells, increased pumping from existing wells, or significant changes in current groundwater appropriations within the DWSMA may have an impact on 1) groundwater availability to all users, 2) increased risk that contamination may enter the part of the aquifer used by the public water supply wells, or 3) change the delineated WHPA and DWSMA boundaries. The City of Rockville will work with the DNR and MDH to become aware of any proposed high-capacity wells within the DWSMA. The City will work with the well owner to minimize or eliminate potential impacts to the public water supply.

**C. Underground and Above-Ground Storage Tanks** – No leaking or registered storage tanks were identified within either of the DWSMAs. While the MPCA requires permits for above and below ground tanks in excess of 1,100 gallons, the City of Rockville will review their role towards ensuring existing regulations are adequate to protect local drinking water supplies.

No private fuel-oil, fuel (gas or diesel) or other storage tanks were inventoried within the DWSMAs. Management strategies to ensure that if private storage tanks are identified, they are correctly managed and spills are addressed appropriately are included in Chapter 5.

**D. Class V Wells** – The City of Rockville staff considered the potential locations of Class V Wells but there were no indications that these types of wells would exist. Management strategies regarding Class V wells and reporting requirements are presented in Chapter 5 of this plan.

**E. The Drinking Water Supply Management Area** - A primary concern expressed by the City of Rockville is to ensure consistent and long-term management of agricultural lands, private wells and SSTS’s, storage tanks, transportation corridors and stormwater issues within the DWSMA. Changes in land use that increase pumping of the aquifer used by the City’s wells need to be assessed for possible impacts on water availability and quality. Finally, the City has no regulatory authority over water appropriations and must rely on the DNR to address issues and concerns related to pumping.

Land use is a mix of residential and agricultural in both DWSMAs with row crop on the more level areas and pastureland on the rolling hills. As cities grow, there is a desire from the population to move outside the busy city and into semi-rural areas to reside. Rockville is an ideal location for this type of expansion from the St. Cloud area. The Future Land Use Map (Exhibit 3.2) identifies large areas of agricultural land that are proposed for conversion to residential properties. This can be done by re-zoning property to Rural-Residential but only

after the applicant has demonstrated the soils are not amenable for crop production. There are pros and cons to all decisions. Taking agricultural land out of production reduces the threat of agricultural practices affecting the aquifer. However, increasing residential property densities must take into account the ability to supply services in the form of water / sewer infrastructure, limit the installation of new wells and SSTs, ensure that turf management issues are addressed and all conditions are backed by City Ordinances.

Three feedlots are of concern for DWSMA 1. Only one is greater than 10 animal-units and this one has been inactive for several years but retains the permit. The other two within the DWSMA are less than 10 animal-units. There is a 700-foot buffer zone around each feedlot, which by City Ordinance establishes that no new residences can be constructed within this area. Presently there are no indications that surface agricultural practices are influencing the aquifer. The City will work with Stearns County ESD to ensure these feedlots are in compliance. Future developments will take into account the Comprehensive Plan that encourages retaining agricultural lands for the integrity of the rural atmosphere.

Educational efforts focusing on BMPs for private wells and SSTs are a priority. Twenty private household wells, 26 private sand-point wells and seven SSTs were inventoried within DWSMA 1. One well and no SSTs were identified within DWSMA 2. Wells are of concern since they are either completed in the same aquifer used by the City or have influence upon the aquifer by connections to local surface water bodies or in some cases connections through the low-permeability layer to the buried sand and gravel aquifer itself. Therefore, any form of contaminant entering a private well directly or as a result of improper construction or maintenance, or an unused/unsealed well becomes a direct conduit to the public water supply. Since the City never had a public water supply until Well 1 was constructed in 1968, all residents had their own private household wells. Therefore, this leaves the possibility that several of these older wells were unused/unsealed and not properly sealed. The City has made a commendable effort towards public education in these areas in the past and will continue to pursue efforts that reduce these potential threats.

Any large spills of petroleum or chemical in nature along major roadways (State Highway 23 or Pleasant Road) would cause a serious problem. One concern within Well 3 Emergency Response Area (ERA) is the main travel corridor, State Highway 23. When the road was upgraded, MDH suggested to the Minnesota Department of Transportation (MnDOT) that ditches be lined with low permeability materials and that stormwater infiltration areas be located outside the DWSMA. This area is still a threat as heavy traffic with substantial amounts of petroleum and other liquid-type tankers that could be hazardous, travel directly through this sensitive area. The city will contact MnDOT and area emergency first responders conveying the desire for quick containment and cleanup for any major spills in these areas.

NuStar Energy Incorporated (2330 N Loop, 1604 W San Antonio TX 78278, PO Box 781609) pipeline angles northwest to southeast through DWSMA 1. The 8-inch pipeline transports refined petroleum directly through a highly sensitive area of the DWSMA. A rupture could pose a major threat to the PWS. The City will open dialogue with NuStar Energy Incorporated and ensure that safeguards are appropriate and emergency spill guidelines are in place.

No stormwater system exists within DWSMA 1. All runoff is gravity driven and flows to the north and east.

When spring melt-waters flow or in cases of heavy downpours, ponding occurs in the lowland area around Well 2 ERA, until river and creek levels recede, (high water mark on Well 2 IWMZ form states within 30 feet). Although soils can attenuate certain amounts of contaminants, the risk is significant in this area due to the limited travel time for water infiltrating at this point, to reach the Well 2 capture zone. Hansens have been long time residents of the Rockville area arriving in 1855 to farm the fertile soils and raise cattle. The meadow by the present day Well 2 ERA was an ideal place to hay in close proximity to the family farm. Flooding of this area was also a problem at that time, and the Hansen family acquired a Perpetual Easement for a 12-inch drain tile to be installed in the northern portion of the meadow, thus significantly reducing the amount of time for the area to drain and grasses to mature for haying. Recently this drain system has become plugged, increasing the ponding effect around Well 2 ERA. The City will open dialogue with the Hansen farm and explore a cooperative effort to reopen this tile system. The City will also look into possible alternate diversions, retention ponds or other remedies to alleviate this potential contamination problem.

A gravel pit was reclaimed along County Road 8 in the southern portion of DWSMA 1. A replacement gravel pit was started due east of the old one near the eastern DWSMA boundary. Although once used extensively, the pit now is rarely used. According to cross-sections in Part 1 of the Plan, this area has a very limited to non-existent low-permeability layer above the aquifer and the area is considered highly vulnerable. Gravel pit operations are allowed by Interim Use Permits only and the applicant must demonstrate how the pit will be maintained and restored once the permit period ends. Large-scale removal of gravel could pose a threat to the aquifer in this region. The City will cooperate with the landowner and look at possible solutions that guarantee protection of the aquifer.

- F. Providing Funds to Conduct Requirements of the Wellhead Protection Plan-** The City understands the importance of providing good quality and quantities of water for consumption and strives to maintain present conditions. Cities already face obstacles in balancing budgets. Staff time and incidental costs of this un-funded mandate add a financial burden to an already stressed budget. Measuring specific goals are difficult with future resources both financial and personnel unknown. Changes in elected officials and other personnel in the future may make present day goals difficult to attain. The City will promote Wellhead Protection and pursue MDH implementation grants and other sources of funding to help defray costs coming directly from the City budget.

## **II. IDENTIFICATION OF:**

### **A. Problems and Opportunities Disclosed at Public Meetings and in Written**

**Comments** - At the beginning of the planning process other Local Units of Government (LUG) were identified and informed that the City was beginning the wellhead protection planning process (See Exhibit 9 for a list of LUGs.) Each unit of government was also sent a copy of the City's delineated WHPA and DWSMA and vulnerability assessment for the City's wells and DWSMA's. To date, no comments from the LUGs have been received.

- B. Data Elements** - The state's Wellhead Protection Rule requires that existing information be utilized in developing the initial Wellhead Protection Plan. Much of the data collected and utilized to delineate the City's WHPA and DWSMA and for determining the vulnerability of the aquifer to possible contamination comes from small-scale, or regional studies. There is a limited amount of subsurface information available to define local groundwater flow conditions and the groundwater chemistry of the aquifer within the DWSMA. The direction of

groundwater flow was evaluated to address concerns that the current amount of subsurface information does not permit an unquestioned determination of local groundwater flow conditions toward the City’s water supply wells. As a result, delineation of the WHPA represents a composite of capture zones generated by varying aquifer properties, within limits determined by MDH.

Based upon the uncertainties associated with the aquifer as described in Part I of the WHP Plan, the City will continue to focus its data collection efforts on suggestions provided by MDH in Part 1 of the Plan. Results will help better define the aquifer boundaries, hydraulic conditions and amount of surface water influence. See Chapter 5 Data Collection for specific tests suggested by MDH and timelines.

**C. Status and Adequacy of Official Controls, Plans, and Other Local, State, and Federal Programs on Water Use and Land Use** - There are many tools available to the regulating agencies that may be used to achieve the wellhead protection planning goals identified.

**Table 3: Official controls, plans and other Federal, State and Local Programs**

<b>Gov. Unit or Resource</b>	<b>Type of Program</b>	<b>Brief Program Description</b>
MN Dept. of Health (MDH)	State Well Code  Wellhead Protection Program  Wellhead Protection Implementation Grants	MDH has sole authority over the construction of new wells and offers technical assistance for sealing unused/unsealed wells. In addition, MDH administers the Safe Drinking Water Act. MDH has staff that will assist the city with identifying technical or financial support that they or other governmental agencies can provide to assist with managing potential contamination sources.
Minn. Rural Water Assoc. (MRWA)	Wellhead Protection Program  Public Water Supply Maintenance, Technical Assistance and Education	Provides technical assistance for planning and implementation of WHPP. Leader in providing assistance in several areas for public water suppliers to become proficient in supplying quality water to consumers.
MN Dept. of Natural Resources (DNR)	Water Appropriation Permits	DNR can require that anyone requesting a new permit or an increase in existing permitted appropriations or to pump groundwater must address concerns of the impacts to drinking water if these concerns are included in a WHP plan.
MN Pollution Control Agency (MPCA)	Storage Tank Program  Stormwater Program	MPCA administers the programs dealing with storage tank regulations and stormwater management.
MN Dept Ag UM Extension Agency	Technical and Cost-share for Agricultural BMPs.	Provides technical assistance and support for BMPs on agricultural lands and feedlots.
Environment Protection Agency (EPA)	Class V Well Program	EPA has the regulatory authority over Class V Injection Wells or also known as Class V Wells.

<b>Gov. Unit or Resource</b>	<b>Type of Program</b>	<b>Brief Program Description</b>
Stearns County Environmental Services Department (ESD)	Household Hazardous Waste Collection.	Provides education to landowners and a semi-annual collection program for disposing of household hazardous waste.
	Drug disposal Drop Boxes	Provides a source for disposing of unused drugs so they do not become a soil or water pollutant.
	Land-use and Water Planning	Establishes countywide goals and priorities towards protecting water resources.
	Subsurface Sewage Treatment Systems (SSTS)	Regulatory control
	Feedlot permitting	Issues feedlot permits and inspects for compliance
Stearns Co. SWCD/NRCS	Agriculture Environmental Incentives Programs, such as the Conservation Reserve Program or Environmental Quality Incentives Program	Provides financial and technical assistance to agricultural managers and landowners
	TMDL local water bodies	Grants secured through BWSR to implement TMDL BMPs
	Stormwater	Technical Assistance and Cost Share opportunities
Sauk River Watershed District	Stormwater	Provides cost-share incentives for Rain Gardens, etc.
	TMDL local water bodies Mill Creek TMDL	Grants secured through BWSR to implement TMDL BMPs for Mill Creek
Central Minnesota Water Education Alliance (CMWEA)	Educational outreach	Promote water quality stewardship

City staff recommends that no additional regulations be imposed at this time and are confident that local issues may be adequately addressed through existing processes. Processes include public education, water conservation and good communication with other landowners within the DWSMA.

## **CHAPTER FOUR**

### **WELLHEAD PROTECTION GOALS (4720.5240)**

The City of Rockville's public water supply is considered to have a mixed vulnerability (low to very high). The overall goal of this WHP Plan is to a) prevent contamination of the aquifer from existing known sources and all other potential contaminant sources described within this document and, b) cooperatively manage the aquifer to assure a sustainable potable water supply for all users.

The City has enjoyed a sufficient and safe water supply in the past and proposes, through the implementation of this WHP Plan, to further protect water quality and quantity.

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

- A.** Maintain or improve the current level of water quality that meets or exceeds all state and federal standards. Special emphasis on monitoring indicators such as the presence of coliform bacteria or increased nitrate levels.
- B.** To promote public health, economic development and community infrastructure by ensuring a potable drinking water supply for residents of the community served by the public water supply.
- C.** Ensure protection of the City's aquifer through continued educational efforts for residents within the WHPA and surrounding areas.
- D.** Maintain water quality and integrity of the public water supply system's wells.

## **CHAPTER FIVE**

### **OBJECTIVES AND PLANS OF ACTION (4720.5250)**

**ESTABLISHING PRIORITIES --** The aquifer providing water to the public water supply system has been identified as having a mixed vulnerability to contamination from land use activities. A number of factors must be considered when WHP measures are selected and prioritized (part 4720.5250, subpart 3). Such factors include:

- Contamination of the public water supply wells by substances that exceed federal drinking water standards
- Quantifiable levels of contamination resulting from human activity
- The location of potential contaminant sources relative to the wells.
- The number of each potential contaminant source identified and the nature of the potential contaminant associated with each source
- The capability of the geologic material to absorb a contaminant
- The effectiveness of existing controls
- The time required to get cooperation from other agencies and cooperators
- The resources needed: staff, money, time, legal, technical

Based upon these factors, the staff will concentrate management efforts on the following categories and subsequent strategies to create awareness about groundwater protection and help prevent future contamination of the aquifer (priorities are established within the following tables for each potential contaminant):

**A. WHP Education & Awareness:**

**B. Landowner Management Practices:**

1. **Private Wells and Septic Systems SSTS**
2. **Agricultural Land and Feedlots**
3. **Stormwater Runoff and Turf Management**
4. **Private Fuel Storage Tanks and Private Gravel Pit**
5. **High Capacity Well Management**
6. **Class V Wells**

**C. Transportation Corridors & Spills:**

**D. IWMZ Activities,**

**E. DWSMA 2 Lift Station and Unknowns:**

**F. Data Collection:**

**G. Wellhead Protection Recognition and Planning:**

**H. Plan Evaluation and Reporting**

**A. WHP EDUCATION & AWARENESS:**

**Objective A-1.** Create awareness and general knowledge about the importance of WHP in the City of Rockville DWSMA’s and surrounding community. Establish a public education program through personal communication and/or mailings to educate citizens on how land use activities affect groundwater quality and the Public Water Supply (PWS) Wells.

Implementation Action Items															
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame							Update Plan			
					2012	2013	2014	2015	2016	2017	2018		2019	2020	
Action A-1a	<p>Collect and assemble a comprehensive packet of “fact sheets” from existing materials addressing a variety of land use BMP’s pertaining to PCSI and WHP education. Most of these fact sheets are already in print and can be obtained through the MDH, MPCA, MDA, Extension or County Offices as noted below. MRWA website has several downloadable packets / flyers currently available as SWP implementation tools. The packets will be made available at City Hall:</p> <ul style="list-style-type: none"> <li>• Importance of well sealing and cost share funding available for sealing wells if found (MDH, MRWA, Stearns SWCD) ©</li> <li>• Agricultural BMP’s (Stearns SWCD,NRCS,SRWD,Dept Ag) ©</li> <li>• Information on Class V Wells (EPA) ©</li> <li>• Household Hazardous Waster (Stearns ESD) ©</li> <li>• Septics-SSTS (Stearns ESD,BSWR) ©</li> <li>• Stormwater Issues (MPCA, SRWD,SWCD) ©</li> <li>• Turf contaminant runoff (MRWA,SRWD,SWCD,MDA) ©</li> <li>• Water Conservation (MRWA,MDH,DNR) ©</li> </ul> <p>Check for updated and/or new information at least every 3 years.</p>	High	<p>City Staff ®</p> <p>Cooperators are noted behind fact sheet listing</p>	Initially \$300 and Staff Time Updating \$150 plus Staff Time		X			X			X			
Action A-1b	<p>Submit an article to be published in the Rockville Newsletter explaining the WHP efforts for providing good quality water for consumers, how consumers can obtain further information such as collected in Action A-1a, water conservation efforts and progress / results of implementing the goals set forth by this Plan. Seek grants for staff time and postage.</p>	High	<p>City Staff ®</p> <p>City Staff©</p>	\$300 plus Staff Time	X				X					X	
Action A-1c	<p>Purchase and install a Wellhead Protection Area sign for DWSMA 2. Some signs are already in place around DWSMA 1.</p>	Moderate	<p>City Staff ®</p> <p>City Staff©</p>	\$200 for sign & post	X										

Action A-1d	Continue working with Central Minnesota Water Education Alliance (CMWEA) to encourage educational opportunities designed to better inform the public of their role in maintaining local water quality. Apply for MDH Implementation grants and other funding sources for annual contribution, printing costs and staff time.	High	City Staff ®  CMWEA© Local Cities©	Staff Time \$500	X	X	X	X	X	X	X	X	X	X	X
Action A-1e	Continue to participate in the Rocori Area Water Festivals partnership to provide and annual 4 <sup>th</sup> grade water festival. Apply for MDH Implementation grants or other funding to offset staff and setup costs.	High	City Staff ®  Rocori Area Cities© Local Agency©	Staff Time \$1200	X	X	X	X	X	X	X	X	X	X	X
Action A-1f	Upload the WHP Plans 1 & 2 to the City website. Provide addresses where interested parties can find more information and / or a direct link to sites such as MDH, MRWA, BWSR, etc. MDH will supply maps compatible for uploading on website.	Moderate	City Staff ®  Private Consultant©	Staff Time				X							

**B: LANDOWNER MANAGEMENT PRACTICES:**

**B-1. PRIVATE WELLS AND SUBSURFACE SEWAGE TREATMENT SYSTEMS (SSTS) , SEPTIC SYSTEMS**

**Objective B-1:** Educate landowners on BMP’s for wells and septic systems. Ensure that all wells are identified, unused/unsealed wells are located and older wells are monitored to decrease chances of contamination entering the aquifer around casing, etc.

Implementation Action Items															
Action	Description	Priority (H, M,L)	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame										
					2012	2013	2014	2015	2016	2017	2018	2019	2020	Update Plan	
Action B-1a	Contact local well owners listed in Appendix as Exhibit 5 explaining the WHPP and send information packets put together through Action A-1a. Include information on best management practices for wells.	High	WHP Team® Landowners ©	Staff Time Mail Cost	X										
Action B-1b	Contact local landowners with information concerning identification and sealing of unused/unsealed wells (Example: Paynesville Brochure). Encourage input and cooperation from landowners to locate unused/unsealed wells and ensure they are properly sealed. Apply for MDH grants and other funding to cover any geophysical techniques required to substantiate wells, and sealing if found.	High	WHP Team® Landowners © MDH© SWCD© SRWD©	Staff Time \$1500			X								
Action B-1c	Contact the Sauk River Watershed District and request that BMP packets be sent to the 7 SSTS inventoried as part of this Plan. Supported by information revealed in SRWD TMDL study showing marginal contributions of fecal contamination to Mill Creek from SSTSs.	Moderate	WHP Team® Landowners © SRWD©	Staff Time		X									

**B2. AGRICULTURAL LAND PRACTICES AND FEEDLOTS**

**OBJECTIVE B-2:** Work with local, state and federal agencies to encourage landowners to utilize available resources and programs to adopt BMP for their particular type of soil and agricultural goals (e.g. CRP, EQIP, etc.)

Implementation Action Items																
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame											
					2012	2013	2014	2015	2016	2017	2018	2019	2020	Update Plan		
Action B-2a	Cooperate with Stearns Co. SWCD and MRWA in contacting local agricultural landowners and provide information for BMPs in sensitive areas, such as WHPA. Encourage utilizing existing and future programs that promote better management of agricultural practices such as CRP, EQIP and others, thus reducing the risk of potential contamination to the aquifer used by the City for a public water supply. Repeat every 3 years.	Moderate	City Staff ® WHP Team® MnAg© StearnsSWCD© NRCS© MRWA©	Staff Time \$100 print cost			X			X					X	
Action B-2b	Contact Stearns County ESD, regulatory authority on feedlots, and request that all active feedlots within the DWSMA are regularly inspected for compliance and landowners are given ample education on feedlot management.	Moderate	City Staff ®  Stearns ESD, SWCD© NRCS ©	Staff Time				X								

**B3. WATERSHED STORMWATER RUNOFF AND TURF MANAGEMENT IN THE CITY OF ROCKVILLE:**

**OBJECTIVE B-3:** Minimize the effects of watershed runoff towards Mill Creek and surrounding area.

Implementation Action Items														
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame									
					2012	2013	2014	2015	2016	2017	2018	2019	2020	Update Plan
Action B-3a	Continue efforts to increase involvement in establishing rain-gardens and rain-barrels within the DWSMAs to decrease the amounts of lawn fertilizer, herbicides and pesticides that runoff and enter local surface waters. Local cost share is available through SWCD and SRWD via BWSR and other grants. Printable pamphlets are available on SRWD and City website.	High	WHP Team® City Staff®  SRWD © Stearns SWCD©	Staff Time			X							
Action B-3b	Water ponds around Well 2 ERA in the spring and during periods of heavy rain due to blockage of an old 12 inch tiling system that drains the meadow where the ponding occurs. Local landowner has Perpetual Easement on this tiling system. Apply for MDH grants and other available funding to cooperate with landowner and reopen this tiling system to drain meadow faster.	High	City Staff® City Council®  Landowners©	Staff Time \$7500		X								
Action B-3c	Cooperate with the Sauk River Watershed District on implementing the recently developed Municipal Stormwater Assessment Plan.	Moderate	WHP Team® City Staff®  SRWD ©	Staff Time	X									
Action B-3d	Cooperate with the Sauk River Watershed District on implementing the Mill Creek TMDL initiatives. Thus far, funding is secured. However, in the advent that unknown costs evolve for the City, explore options and funding sources. Continue to cooperate throughout the implementation process and summarize in year 8 of this Plan.	Moderate	WHP Team® City Staff®  SRWD © Stearns SWCD© MRWA©	Staff Time Unknown costs								X		

**B4. PRIVATE FUEL STORAGE TANKS AND GRAVEL PIT:**

**OBJECTIVE B-4:** Ensure BMPs for private storage tanks if found and the gravel pit within the DWSMA. Place a special emphasis on the highly vulnerable areas within the DWSMA.

Implementation Action Items													
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame						Update Plan		
					2012	2013	2014	2015	2016	2017		2018	2019
Action B-4a	If any private storage tanks are identified, contact landowners and supply them with pamphlets (Compiled in Action A-1a) and other information on BMP's and actions in response to spills. The City will continue to identify private storage tanks. Any action taken summarized in year 8 of Plan Implementation.	Moderate	City Staff®  Property Owners ©	Staff Time Printing Mailing \$300							X		
Action B-4b	Work closely with landowner of the gravel pit located in the highly vulnerable southern portion of DWSMA 1. Supply the landowner a map of the vulnerability and information regarding possible impacts from large-scale removal of overburden within this area. Consider possible reclamation with cost-share options through MDH implementation grants or SRWD groundwater protection grants other available funding.	High	City Staff®  Property Owner © MDH© SRWD©	Staff Time \$10,000			X						

**B5. HIGH CAPACITY WELL MANAGEMENT:**

**OBJECTIVE B-5:** Identify any new high capacity wells that are proposed in the DWSMA so their impact on the public water supply wells can be determined.

Implementation Action Items																		
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame													
					2012	2013	2014	2015	2016	2017	2018	2019	2020	Update Plan				
Action B-5a	Send an official letter with a DWSMA vulnerability map to the Minnesota DNR requesting that the City and MDH be notified if a high-capacity well is proposed within 1.5 miles of the City’s DWSMAs. In the advent that one is proposed, work with MDH and DNR to ensure that the well does not negatively impact the aquifer used by the PWS.	High	WHP Manager® Mayor, City Council®  DNR© MDH©	Staff Time	X													

**B6. CLASS V WELLS (CLASS V SYSTEM) AND OTHER UNKNOWN:**

**OBJECTIVE B-6:** Create awareness among commercial enterprises, local automotive shops, or garages about what a Class V well is and Federal EPA registration, permitting and reporting requirements for Class V Wells. If a Class V Well or other potential contaminant unknown at this time is discovered, remediate the problem promptly.

Implementation Action Items																		
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame													
					2012	2013	2014	2015	2016	2017	2018	2019	2020	Update Plan				
Action B-6a	In the event a Class V well is identified the wellhead manager will work cooperatively with MDH to determine the status of the Class V system and what reporting steps may be needed to register the Class V well with EPA, summarize in year 8, reporting forms are available at: <a href="http://www.epa.gov/safewater/uic/7520s.html">www.epa.gov/safewater/uic/7520s.html</a> ).	High	City Staff®  MDH © EPA ©	Staff Time										X				

**C. TRANSPORTATION CORRIDOR & PIPELINE SPILLS:**

**OBJECTIVE C-1:** Create awareness about the WHP area along transportation corridors. Protect the groundwater and public water supply wells from possible contamination from accidental spills along roads and right of ways. Inform local emergency responders about the location of the DWSMA and WHP efforts.

Implementation Action Items														
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame							Update Plan		
					2012	2013	2014	2015	2016	2017	2018		2019	2020
Action C-1a	In the advent that Pleasant Road needs complete reconstruction, explore available options for lining ditches with low permeability materials, seek competitive bids and apply for MDH grants or other funding to help with the costs of this project. Continually keep options open and summarize any progress in year 8 of Plan Implementation.	Moderate	WHP Mgr ® City Council®  MDH ©	Staff Time								X		
Action C-1b	Through direct correspondence with the City and County Emergency Manager, Local Fire Department, MPCA, and local first responders alert them to the location of the DWSMAs by providing them a map and informing them of City of Rockville’s WHP efforts. Develop a local Emergency Response Plan Agreement for spills by Well 3 ERA , along State Hwy 23, NuStar Energy Inc. Pipeline and along Pleasant Road in DWSMA 2. Seek a meeting with local responders, local cities on same corridor, MPCA and MnDOT to open a dialogue for continued support of WHP efforts along such corridors in sensitive areas. At meeting, suggest repeating in 5 years to keep information recent.	High	WHP Manager City Staff ®  Local Fire Dept., ©City Co. Emergency Manager©, MPCA Spill Units© MnDOT©	Staff Time		X						X		
Action C-1c	Contact NuStar Energy Inc. (2330 N Loop, 1604 W San Antonio TX 78278, PO Box 781609) and request special consideration be given to the pipeline running through DWSMA 1. Request that the pipeline be appropriately signed, protected and safeguards are in place for possible leaks or ruptures.	High	WHP Mgr ® City Council® NuStar Energy ©	Staff Time			X							

**D. INNER WELLHEAD MANAGEMENT ZONE ACTIVITIES:**

**OBJECTIVE D-1:** Effectively manage the IWMZ (200’ radius around public water supply well) to reduce the likelihood of contaminants from entering the well at a level to cause human health impacts.

Implementation Action Items																	
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame												
					2012	2013	2014	2015	2016	2017	2018	2019	2020	Update Plan			
Action D-1a	Assist MDH staff in completing the IWMZ forms for the public water supply wells every five years.	High	MDH ® City Staff ©	Staff Time	X						X						X
Action D-1b	City staff will continue to monitor setbacks for any new potential sources of contamination located within the IWMZ.	High	WHP Manager ® City staff ©	Staff Time	X	X	X	X	X	X	X	X	X	X	X	X	X
Action D-1c	City staff will develop wellhead protection measures to address any new potential contaminant sources identified in future IWMZ inventories/surveys.	High	City Staff ®	Staff Time	X	X	X	X	X	X	X	X	X	X	X	X	X
Action D-1d	Implement the WHP Measures identified in the IWMZ Inventory listed on each individual Well’s form (see Exhibit 6).	High	City Staff ®	Staff Time	X	X	X	X	X	X	X	X	X	X	X	X	X

**E. PLEASANT LAKE LIFT STATION and UNKNOWNNS:**

**OBJECTIVE E-1:** Ensure that unforeseen problems at the Pleasant Lake lift station would not cause overflow and thus threaten the aquifer due to the close proximity to Well 4.

Implementation Action Items															
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame										
					2012	2013	2014	2015	2016	2017	2018	2019	2020	Update Plan	
Action E-1a	Explore options concerning the close proximity of the Pleasant Lake lift station to the highly vulnerable areas of that DWSMA. Continue dialogue with appropriate agencies, keep options open and summarize any actions in year 8 of Plan Implementation.	Low	City Staff ®  PCA© MRWA©	Staff Time									X		

**OBJECTIVE E-2:** It is difficult to predict what potential contaminants could be found in the future. Keep aware of the possibilities and maintain a strategy to alleviate the problems promptly.

Implementation Action Items															
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame										
					2012	2013	2014	2015	2016	2017	2018	2019	2020	Update Plan	
Action E-2a	It is always difficult to foresee or plan for the future. If a critical issue or potential contaminant threat becomes an issue in the future, the city will promptly take actions to prevent this contaminant source from polluting their drinking water supply. Contact and work with the appropriate agency to resolve and remediate potential contaminant problems. Apply for funding through MDH Grant application or other available funding to remedy the problem as rapidly as possible. Any action taken will be summarized in 2019 and submitted to MDH.	Moderate	City Staff ®  MDH © MnTAP© EPA © PCA© Stearns SWCD Stearns ESD©	Staff Time Funds dependant upon problem									X		

**F. DATA COLLECTION:**

**OBJECTIVE F-1:** Gather additional information from new wells drilled in the area, chemical / isotopic analyses of surrounding water bodies and the aquifer or other studies in order to gain further knowledge of the City’s aquifer characteristics.

Implementation Action Items															
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame										
					2012	2013	2014	2015	2016	2017	2018	2019	2020	Update Plan	
Action F-1a	Explore gaining a cooperative effort from agencies to conduct a combination of soil borings, Giddings probes and or other geophysical surveys to better define the boundary of high sensitivity in DWSMA 2. Apply for MDH grants or other funding to help with the costs of the operations.	High	WHP Mgr ®  MDH © MGS© SWCD©	Staff Time *Unknown				X							
Action F-1b	Cooperate with MDH to collect and submit the following water samples: Stable isotopes of water at City Wells 4 and 5 and from a designated location on Pleasant Lake on a quarterly basis for one year. A single sample should also be collected from City Wells 4 and 5 and analyzed for oxidation / reduction and major anions and cations to help evaluate the potential geochemical protection of the aquifer. MDH will cover water analyses costs.	High	WHP Mgr ®  MDH ©	Staff Time		X									
Action F-1c	Cooperate with MDH to conduct a pumping test of either City Well 4 or 5. This test should be designed to identify any aquifer boundary effects in the area and should use all existing test wells. Apply for MDH grants or other funding to help with the costs of the operations.	High	WHP Mgr ®  MDH©	Staff Time *Unknown					X						
Action F-1d	Collect water samples from City Wells 2 and 3, Grand Lake and a wetland between the lake and the City wells during the summer and have analyzed for stable isotopes. This would better define surface water impacts on the aquifer. These analyses will be covered under MDH’s funding for chemical analyses.	High	City Staff ®  MDH©	Staff Time	X										
Action F-1e	Cooperate with MDH to collect water samples from designated City well(s) for the analyses of tritium. These analyses will be covered under MDH’s funding for chemical analyses.	High	City Staff ®  MDH©	Staff Time							X				

**G. WELLHEAD PROTECTION RECOGNITION & PLANNING:**

**OBJECTIVE G-1:** Identify Wellhead Protection and the delineations completed (WHPA, DWSMA) in future revisions to local landuse and resource planning / documents. Consideration should be given to how future land uses or changes may impact local groundwater resources and the City of Rockville’s public water supply

Implementation Action Items														
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame							Update Plan		
					2012	2013	2014	2015	2016	2017	2018		2019	2020
Action G-1a	Request that the City Council review present Landuse & Zoning Ordinances, future Ordinances and Planning documents, and include emphasis of the importance of the WHP Plan. Thus, attaining recognition of efforts to protect the City of Rockville’s public water supply. Consider amending present documents to adhere to these review evaluations. Conduct after or in conjunction with updating the Comprehensive Land Use Plan.	High	WHP Manager ®  City Council© Elected Official©	Staff Time \$5000				X						

**H. EVALUATION AND REPORTING:**

**OBJECTIVE H-1:** Implementation of the WHP Plan requires regular assessment to determine the effectiveness of present management strategies, available funds to conduct the implementation and strategies that may need revision to produce the desired result.

Implementation Action Items														
Action	Description	Priority	Responsible Party ® & Cooperators ©	Cost	Implementation Time Frame									
					2012	2013	2014	2015	2016	2017	2018	2019	2020	Update Plan
Action H-1a	The WHP manager will brief the Finance Committee prior to the budgeting process, conveying the effectiveness of present management strategies, projects for the upcoming year, perceived problems with implementation and any concerns of funding, revisions or implementation problems with the WHP Plan.	Moderate	WHP Manager ® City Council©	Staff Time	X	X	X	X	X	X	X	X	X	X
Action H-1b	The WHP manager will make an annual written report to the governing authority regarding progress in implementing the wellhead protection management objectives of this Plan. The annual reports will be compiled and used to review the overall progress in implementing source management strategies when the City’s wellhead protection plan is updated in 10 years. A copy of the report will be sent to the Minnesota Department of Health Source Water Protection Unit in St. Paul and another copy will be placed in the City’s Wellhead Protection file.	Moderate	WHP Manager ® MDH SWPU©	Staff Time	X	X	X	X	X	X	X	X	X	X
Action H-1c	City Staff will conduct a self-assessment of the Plan, including effectiveness of the management strategies, progress of implementation and any new concerns or problems every quarter (2.5 years) that the Plan is in effect. The assessment meeting will be documented by the WHP Manager and included in the WHP Plan file to be utilized by MDH in their periodic overall assessment of the WHP Plan implementation.	Moderate	City Staff ® MDH ©	Staff Time			December			July		December		

## **CHAPTER SIX**

### **EVALUATION PROGRAM (4720.5270)**

The success of the wellhead protection management program must be evaluated in order to determine whether the plan is actually accomplishing what the City of Rockville set out to do. The activities listed 1-5 below will be implemented in order to:

- Track the implementation of the objectives identified in Chapter 5 of this Plan;
  - Determine the effectiveness of specific management strategies regarding the protection of the public water supply;
  - Identify possible changes to these strategies which may improve their effectiveness; and
  - Determine the adequacy of financial resources and staff availability to carry out the management strategies planned for the coming year.
- 1) The City will continue to cooperate with MDH in the annual monitoring of the water supply to determine whether the management strategies are having a positive effect and to identify water quality problems that may arise.
  - 2) City staff, the governing authority, and the WHP manager will travel through the drinking water supply management area on a regular basis to identify any changes in land use or potential contaminant source management practices that may adversely impact the public water supply.
  - 3) The Wellhead Protection Team will meet on an as-needed basis, with a minimum of one annual meeting, to review the results of each strategy implemented during the previous plan year, identify and discuss whether modifications are needed for those strategies, and additional strategies for the coming year.
  - 4) The City staff will conduct a self-assessment of the WHP Plan Implementation process quarterly (every 2.5 years the Plan is in effect), document the assessment and include it in the WHP Plan file.
  - 5) The wellhead protection plan manager will make an annual written report to the governing authority regarding progress in implementing the wellhead protection management objectives of this Plan. The annual reports will be compiled and used to review the overall progress in implementing source management strategies when the City's wellhead protection plan is updated in 10 years. A copy of the report will be sent to the Minnesota Department of Health Source Water Protection Unit in St. Paul and another copy will be placed in the City's Wellhead Protection file.

# CHAPTER SEVEN

## WATER SUPPLY CONTINGENCY PLAN (4720.5280)

### WATER SUPPLY CONTINGENCY PLAN

City of Rockville

#### Table of Contents

	<u>Page Number</u>
A. PURPOSE	41
B. PUBLIC WATER SUPPLY CHARACTERISTICS	41
1. Current Supply Source	
2. Treatment	
3. Storage and Distribution	
4. Maps and Plans	
C. PRIORITY OF WATER USERS DURING WATER SUPPLY EMERGENCY	41
D. ALTERNATIVE WATER SUPPLY OPTIONS	42
1. Surface Water Sources and Treatment	
2. Bottled Water	
3. System Interconnects	
4. Other Alternative Water Resources	
E. INVENTORY OF AVAILABLE EMERGENCY EQUIPMENT AND MATERIALS	43
F. EMERGENCY IDENTIFICATION PROCEDURES	43
G. NOTIFICATION PROCEDURES	44
1. Agency Contact List	
2. Critical Response Personnel	
3. Public Information Plan	
H. MITIGATION AND CONSERVATION PLAN	46
1. Mitigation	
2. Conservation	

**Annual Plan Review**

<i>Date Reviewed</i>	<i>Reviewer</i>	<i>Comments</i>

**Plan Distribution**

<i>Person</i>	<i>Organization</i>	<i>Plan Location</i>
Rick Hansen	Public Works Director	City Hall

Prepared By: \_\_\_\_\_  
Date Approved: \_\_\_\_\_

**A. PURPOSE**

The purpose of this Contingency Plan is to establish, provide and keep updated, certain emergency response procedures and information for the City of Rockville that may become vital in the event of a partial or total loss of public water supply services.

**B. PUBLIC WATER SUPPLY CHARACTERISTICS**

1. Current Supply Source - The City obtains their water supply from Well 2 (118132) and Well 3 (595968) for the core system. The Pleasant Lake system, Brentwood Hills addition is supplied water by Well 4 (721760) and Well 5 (721761). All wells are completed in a shallow buried sand and gravel aquifer. Additional information for the PWS is described below.

	Well 2 (Core)	Well 3 (Core)	Well 4 (Pleasant Lake)	Well 5 (Pleasant Lake)
<b>Unique Well #</b>	118132	595968	721760	721761
<b>Supply Source</b>	Buried Sand / Gravel	Buried Sand / Gravel	Buried Sand / Gravel	Buried Sand / Gravel
<b>Well Depth (ft.)</b>	42	93	61	72
<b>Well Diameter (in.)</b>	12	12	12	12
<b>Well Capacity(gpm)</b>	200	350	80 estimated	160 estimated

2. Treatment - The City of Rockville adds chlorine, fluoride and polyphosphates at the Water Treatment Plant.
3. Storage and Distribution - The City has two elevated towers within the core municipal system, one 50,000 gallon serving only as emergency fire backup storage during the summer months and one 150,000 gallon as the main storage for that water system. The Pleasant Lake system has one elevated tower with a 100,000 gallon capacity. The majority of the water distribution system is looped, with only a few dead ends. The water system contains all other necessary valving and piping with most connections metered.
4. Maps/Plans - Maps of the water distribution system and valving are on file at the City Hall and the Maintenance Shop. Sewer and stormwater infrastructure is included as Exhibit 7.

**C. PRIORITY OF WATER USERS DURING WATER SUPPLY EMERGENCY**

**Table C-1 -Water Use Priority Grouping**

Priority Group and Rank	Maximum Daily Use (gpd)	Minimum Daily Use (gpd)
<b>Residential--#1</b>	110,000	30,000
<b>Business--#2</b>	4067	2833
<b>Commercial--#3</b>	1167	1133

**Triggers for implementing water supply reduction/allocation procedures:**

- Water exceeds State Safe Drinking Water Standards
- Water demand increase or treatment / storage capacity reduction
- Main system break or production loss

In the event of a major system disruption, failure or an emergency, conservation procedures would be enacted by the Public Works Director.

## D. ALTERNATIVE WATER SUPPLY OPTIONS

1. Surface water sources and treatment needs: Grand and Pleasant Lakes are a possible supply of surface water in emergency situations. Volume is dependent upon available pump and treatment capacity. The Minnesota National Guard may be able to provide emergency treatment of surface water for human consumption. In the event of a significant water disruption emergency such as a catastrophic event, the following procedure is recommended:
  - Contact the County Sheriff 320-251-4240 or 911 to request assistance from the Minnesota National Guard.
  - Sheriff will contact the Minnesota National Guard, Division of Emergency Management, State Duty Officer (800) 422-0798; and Community Support Group at (651) 282-4013 to request assistance for the City of Rockville.
  - The Minnesota National Guard can provide a portable Reverse Osmosis Water Purification System (ROWPU) capable of supplying 900 gph or 15 gpm.
2. Bottled water supplies, delivery and distribution. Large quantities of bottled water or distributors in the Rockville area include:

Walmart, St. Cloud, MN	320-259-1527
Culligan Water Conditioning in St. Cloud, MN	320-252-2382
Erkens Water in Cold Spring, MN	320-252-1358
Traut Wells, Waite Park, MN	320-251-5090
3. System interconnects with other water supplies. No interconnects exist. The City elected not to connect with the Hansen Farm irrigation well as stated in the original Part 2, 2002.
4. New well. No new wells are planned at this time.
5. Emergency or backup wells. The City of Rockville is supplied by two wells for the core system and two wells for the Pleasant Lake system. The integration and interconnections of the water supply distribution systems allows for the isolation of wells and components within each system but not between systems.
6. Emergency treatment of water system. The City does have a backup generator for use during a power failure for the wells and lift stations.
7. Source Management (blending). The City does blend Wells 2 and 3 for the core system and Wells 4 and 5 for the Pleasant Lake addition.

## E. INVENTORY OF AVAILABLE EMERGENCY EQUIPMENT AND MATERIALS

Table E-1 contains a list of services, equipment and supplies that are available to the City of Rockville to respond to a disruption in the water system. It is believed that the items contained in Table E-1 would be adequate to respond to most (if not all) water system emergencies.

**Table E-1 Emergency Equipment & Materials Contacts**

Description	Owner	Telephone	Location	Acquisition Time
Well Repair	Traut Wells	320-251-5090	Waite Park	1 hr
Pump Repair	Traut Wells	320-251-5090	Waite Park	1 hr
Electrician	Kraemer Electric	320-764-5491	Watkins	1 hr
Plumber	Gene's P&H	320-252-6750	Rockville	½ hr
Backhoe / Excavator	Kraemer Trucking & Excavating	320-685-3024	Cold Spring	½ hr
Chemical Feed	Hawkins Water Treatment	612-331-9100	Minneapolis	2 hrs
Meter Repair	Henry & Assoc	320-259-4134	St Cloud	1hr
Valves Pipe & Fittings	Granite Water Works	320-253-8587	Waite Park	1 hr
Generator	Ziegler Inc	888-320-4292	St Cloud	1 hr

## F. EMERGENCY IDENTIFICATION PROCEDURES

**Table F-1 Procedural Operations**

Incident	Response Procedure and Comments
Identify Disruption	Person identifying disruption contacts Public Works Director
Notify Response Coordinator	Public Works Director is the Response Coordinator or Alternate
Identify Incident Direction and Control	Public Works Director / Response Coordinator or Alternate assesses situation and determine incident direction and control, begin solving problem
Identify Internal Communication	Public Works Director contacts City Hall and / or Administrator/Clerk to inform of situation
Inform Public	Public relations personnel contacts appropriate organizations to inform public of problem
Assess Incident on Continual Basis	Public Works Director or Alternate continues to monitor/solve problem
Assess Contamination Disruption	Public Works Director or Alternate and MDH determine if water supply is contaminated. Monitor/solve problem as needed
Assess Mechanical Disruption	Public Works Director or Alternate assesses mechanical disruption. Monitor and solve disruption as needed.
Provide Alternate Water Supply	If needed, alternate water supply is located and provided
Impose Water Use Restrictions	Public Works Director, Administrator/Clerk and/or Mayor may impose water use restrictions.

## G. NOTIFICATION PROCEDURES

### 1. Agency Notification

Table G-1 contains the names and telephone numbers for contacts at various local and state agencies that may be notified in the event of a public water supply system emergency. Based on the nature of the emergency and the information available, various representatives from this listing will be selected by the response coordinator to be part of the *emergency oversight committee*, which will then meet throughout the duration of the emergency to aid in decision-making and positive outcomes.

**Table G-1. Agency Emergency Contact Listing**

Personnel	Name	Home Telephone	Work Telephone
Public Works Director	Rick Hansen		320-250-2601 cell
Mayor/Board Chair	Jeff Hagen		320-266-0377 cell
Council Members	Bill Becker	320-253-9352	
Council Members	Don Simon	320-252-6000	
Council Members	Jeff Howe		320-333-9208
Council Members	Jerry Schmitt	320-252-4177	320-761-0741 cell
Council Members	Randy Volkmuth	320-240-6889	320-251-1200
Council Members	Duane Willenbring	320-685-7775	763-482-9524
Response Coordinator	Rick Hansen		320-250-2601
Alt. Response Coordinator	Nick Pung		320-293-0594
State Incident Duty Officer			800-422-0798
Rockville Emergency Director	Mike Hofmann		320-250-4696
County Emergency Director	Marv Klug	320-259-3941	
Fire Chief	Rodney Schaefer	320-293-4334	320-251-0072
Sheriff	John Sanner		320-251-4240
Police Chief	Lt. Jon Lentz		320-251-4240
Water Operator	Rick Hansen		320-250-2601 cell
School Superintendent	Scott Staska		320-685-4901
Ambulance	Gold Cross Ambulance		911 or 320-251-2062
Hospital	St Cloud Hospital		320-251-2700
Power Company	Xcel Energy		800-641-440 Gas Emergency
	Stearns Electric Assoc	320-259-6601 St Cloud	800-541-8441 Electric Emergency 320-256-4241 Melrose
Highway Department	Stearns County		320-251-6186
Telephone Company	Century Link		866-642-0444
Neighboring Water System	City of Cold Spring		320-249-0409
MRWA Technical Advisor	Dave Neiman	800-367-6792	218-820-0595 cell
MRWA Circuit Rider Contact	Mike Roers		320-760-5886
MDH District Engineer	Kim Larsen		320-223-7330
MDH Source Water Protection	Karen Voz	320-250-0259	320-223-7322

## 2. Critical Response Personnel

**Table G-2 Critical Response Personnel**

<b>Title</b>	<b>Name</b>	<b>Response Assignment</b>
<b>Response Coordinator</b>	Rick Hansen	Coordinate actions to address emergency
<b>Alternate Response Coordinator</b>	Nick Pung	Coordinate actions to address emergency
<b>Water Operator</b>	Rick Hansen	Direct or contact firms to resolve issue
<b>Alternate Water Operator</b>	Nick Pung	Direct or contact firms to resolve issue
<b>Public Relations</b>	Rena Weber	Contact media to inform citizens/businesses of emergency
<b>Alternate Public Relations</b>	Jeff Hagen	Contact media to inform citizens/businesses of emergency
<b>Public Health/Medical</b>	City Fire Dept., Gold Cross Ambulance Service, County Sheriff Dept., St Cloud Hospital	Assist City as needed to address emergency
<b>Alternate Public Health/Medical</b>	Same as above.	Assist City as needed to address emergency

## 3. Public Information Plan

### a) Public relations center and core spokesperson:

**Name:** Rena Weber  
**Title:** City Administrator  
**Address:** City Hall, 229 Broadway Street East,  
**Phone:** 320-251-5836

**Public information center location during an emergency is:** Rockville City Hall

**Times the center is available are:** Regular business hours and open as needed in the event of an emergency.

**Alternate Information Center Location Site:** The Fire Hall at 24001 Fire Hall Road 320-252-0072 will be used as an alternate meeting site.

### b) Information checklist to be conveyed to the public and media:

- Name of water system:
- Contaminant of concern and date:
- Source of contamination:
- Public health hazard:
- Steps the public can take:
- Steps the water system is taking:
- Other information:

### c) Media contacts

Media	Name	Telephone	Location
Newspaper	Cold Spring Record	320-685-8621	Cold Spring
	St Cloud Times	320-255-3700	St Cloud
Television	Midcontinent Communications	800-888-1300	Cold Spring
Radio	KCLD/KNSI 98.9,99.9,104.7	320-251-8952	Rockville

## H. MITIGATION AND CONSERVATION PLAN

### 1. Mitigation

#### a. Infrastructure maintenance/upgrades/maps:

The City water system is flushed twice per year. No new water lines were installed within the last year. Infrastructure maps are available at City Hall, stormwater/sewer maps are included in Appendix.

#### b. Regular inspection of tower, well(s), pump house:

All of these items are inspected daily. The well house and chemical rooms have keyed entries and are locked. The water towers and reservoir are cleaned and inspected on a competitive bid basis, every 2 years.

#### c. Staff emergency training:

Staff receive training through Minnesota Rural Water Association.

#### d. System security analysis:

All facilities are locked and have keyed entries.

#### e. Site new backup well(s):

No new backup wells are being planned.

#### f. System valving to isolate problems:

The water system is adequately valved to isolate problems.

#### g. Sanitation procedures for construction/repairs:

All disinfecting procedures are performed per State specifications.

### 2. Conservation

#### a. Water meters:

All city water connections are presently metered.

#### b. Public education:

The City publishes the Consumer Confidence Report in the Cold Spring Record and a copy is available at City Hall..

#### c. Rate structure:

Flat Fee/Base Charge:	\$9.20 per month
Minimum Charge:	\$3.32 per 1000 gallons

**APPENDIX A**  
**REFERENCED DATA FOR**  
**PART 2 Wellhead Protection Plan**

**Listing of Exhibits**

- **Exhibit 1.0- Soils Map for DWSMA 1**
  - Exhibit 1.1- Soils Map Legend for DWSMA 1
  - Exhibit 1.2-Soils Map for DWSMA 2
  - Exhibit 1.3-Soils Map Legend for DWSMA 2
- **Exhibit 2.0- Local Wetland Map**
- **Exhibit 3.0- Land-use Map DWSMA 1**
  - Exhibit 3.1- Land-use Map DWSMA 2
  - Exhibit 3.2- Future Land-Map Rockville
- **Exhibit 4.0- Rockville Zoning Map**
  - Exhibit 4.1- Zoning Map Legend Description
- **Exhibit 5.0- Potential Contaminant Source Inventory (PCSI) Map, DWSMA 1**
  - Exhibit 5.1- PCSI Map, DWSMA 1 North
  - Exhibit 5.2- PCSI Map, DWSMA 1 South
  - Exhibit 5.3- PCSI Map, DWSMA 2
  - Exhibit 5.4- PCSI Table
  - Exhibit 5.5- Local Travel Corridors (Roads)
- **Exhibit 6.0- Inner Well Management Zone Maps and Descriptions**
- **Exhibit 7.0-Rockville Sanitary Sewer Infrastructure Map**
  - Exhibit 7.1-DWSMA 1 Sanitary Sewer Infrastructure Map
  - Exhibit 7.2-DWSMA 2 Sanitary Sewer Infrastructure Map
  - Exhibit 7.3-DWSMA 2, Stormwater Infrastructure Map
- **Exhibit 8.0- Consumer Confidence Report**
- **Exhibit 9.0-List of Local Units of Government**
- **Exhibit 10.0- Wellhead Protection Team**
- **Exhibit 11.0- Acronym Definitions**
- **Exhibit 12.0- Yearly Synopsis of Chapter 5 Management Strategies.**

**Exhibit 1.0: Soils Map for DWSMA 1 (from NRCS Web Soil Survey, available online at <http://websoilsurvey.nrcs.usda.gov/> accessed 10-25-2011).**



**Exhibit 1.1: Soils Map Legend for DWSMA 1 (from NRCS Web Soil Survey, available online at <http://websoilsurvey.nrcs.usda.gov/> accessed 10-25-2011).**

## Map Unit Legend

Stearns County, Minnesota (MN145)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
5A	Dakota loam, 0 to 2 percent slopes	0.5	0.1%
5B	Dakota loam, 2 to 6 percent slopes	3.7	0.7%
7A	Hubbard loamy sand, 0 to 2 percent slopes	50.3	9.9%
7B	Hubbard loamy sand, 2 to 6 percent slopes	68.6	13.5%
7C	Hubbard loamy sand, 6 to 12 percent slopes	7.9	1.5%
41A	Estherville sandy loam, 0 to 2 percent slopes	70.6	13.8%
41B	Estherville sandy loam, 2 to 6 percent slopes	37.1	7.3%
41C	Estherville sandy loam, 6 to 12 percent slopes	2.3	0.5%
181	Litchfield loamy sand	5.4	1.1%
260	Duelm loamy sand	37.8	7.4%
261	Isan loamy sand	31.7	6.2%
281	Darfur coarse sandy loam	13.1	2.6%
327A	Dickman sandy loam, 0 to 2 percent slopes	10.5	2.1%
327B	Dickman sandy loam, 2 to 6 percent slopes	1.5	0.3%
392	Biscay loam	8.1	1.6%
454C	Mahtomedi loamy coarse sand, 8 to 15 percent slopes	1.1	0.2%
454E	Mahtomedi loamy coarse sand, 15 to 25 percent slopes	0.4	0.1%
540	Seelyeville muck	89.8	17.6%
543	Markey muck	13.6	2.7%
544	Cathro muck	11.0	2.1%
566	Regal loam	13.9	2.7%
611D	Hawick loamy sand, 12 to 40 percent slopes	4.6	0.9%
639B	Ridgeport sandy loam, 2 to 6 percent slopes	5.6	1.1%
875B	Estherville-Hawick complex, 2 to 6 percent slopes	7.6	1.5%
1016	Udorthents, loamy	2.0	0.4%
1029	Pits, gravel	5.8	1.1%
1055	Histosols and Haplaquolls, ponded	5.9	1.2%
<b>Totals for Area of Interest</b>		<b>510.1</b>	<b>100.0%</b>

**Exhibit 1.2: Soils Map for DWSMA 2 (from NRCS Web Soil Survey, available online at <http://websoilsurvey.nrcs.usda.gov/> accessed 10-25-2011).**



**Exhibit 1.3: Soils Map Legend for DWSMA 2 (from NRCS Web Soil Survey, available online at <http://websoilsurvey.nrcs.usda.gov/> accessed 10-25-2011).**

## Map Unit Legend

Stearns County, Minnesota (MN145)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
5A	Dakota loam, 0 to 2 percent slopes	1.7	0.9%
41A	Estherville sandy loam, 0 to 2 percent slopes	59.3	30.6%
144B	Flak sandy loam, 4 to 8 percent slopes	25.9	13.4%
163B	Brainerd fine sandy loam, 1 to 4 percent slopes	1.5	0.8%
181	Litchfield loamy sand	2.1	1.1%
204B	Cushing sandy loam, 2 to 8 percent slopes	19.5	10.1%
327A	Dickman sandy loam, 0 to 2 percent slopes	3.9	2.0%
413	Osakis loam	30.3	15.6%
541	Rifle mucky peat	3.5	1.8%
543	Markey muck	5.2	2.7%
566	Regal loam	20.3	10.5%
1016	Udorthents, loamy	15.2	7.9%
1892	Prebish fine sandy loam	5.3	2.7%
<b>Totals for Area of Interest</b>		<b>193.6</b>	<b>100.0%</b>

Exhibit 2.0: Local Wetland Areas (from City website)

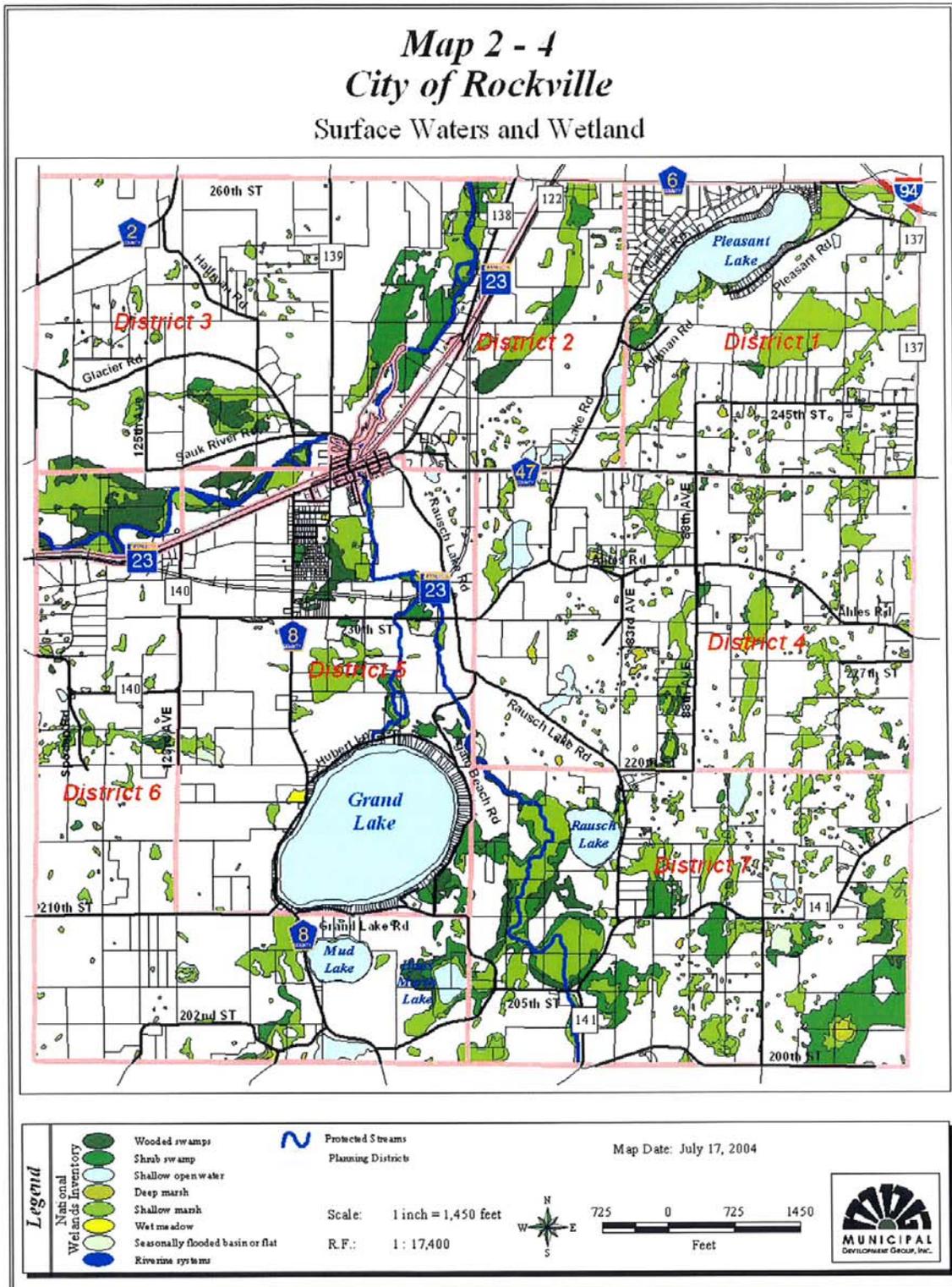


Exhibit 3.0: DWSMA 1 Land-Use Map (from MDH)

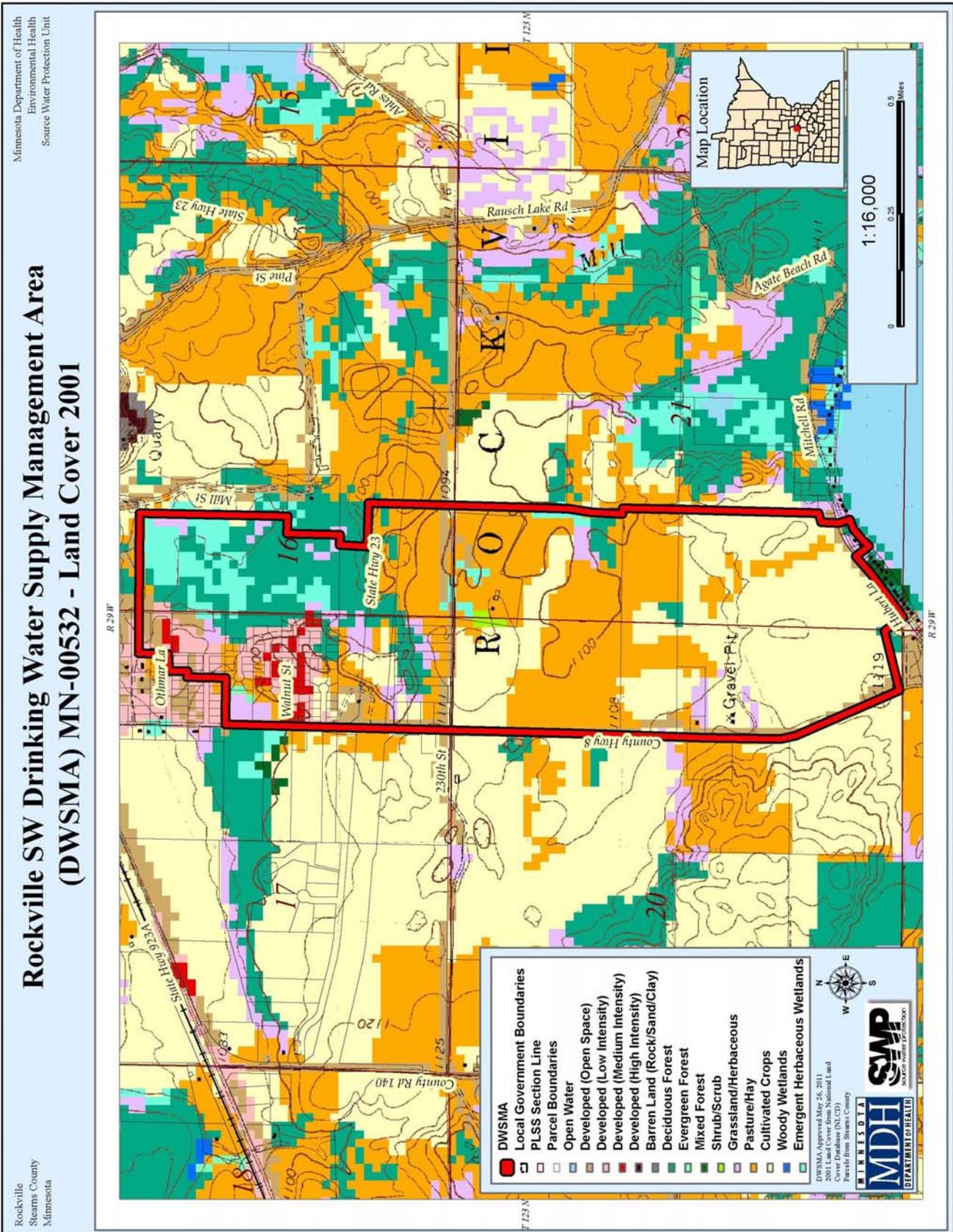


Exhibit 3.1: DWSMA 2 Land-Use Map (from MDH)

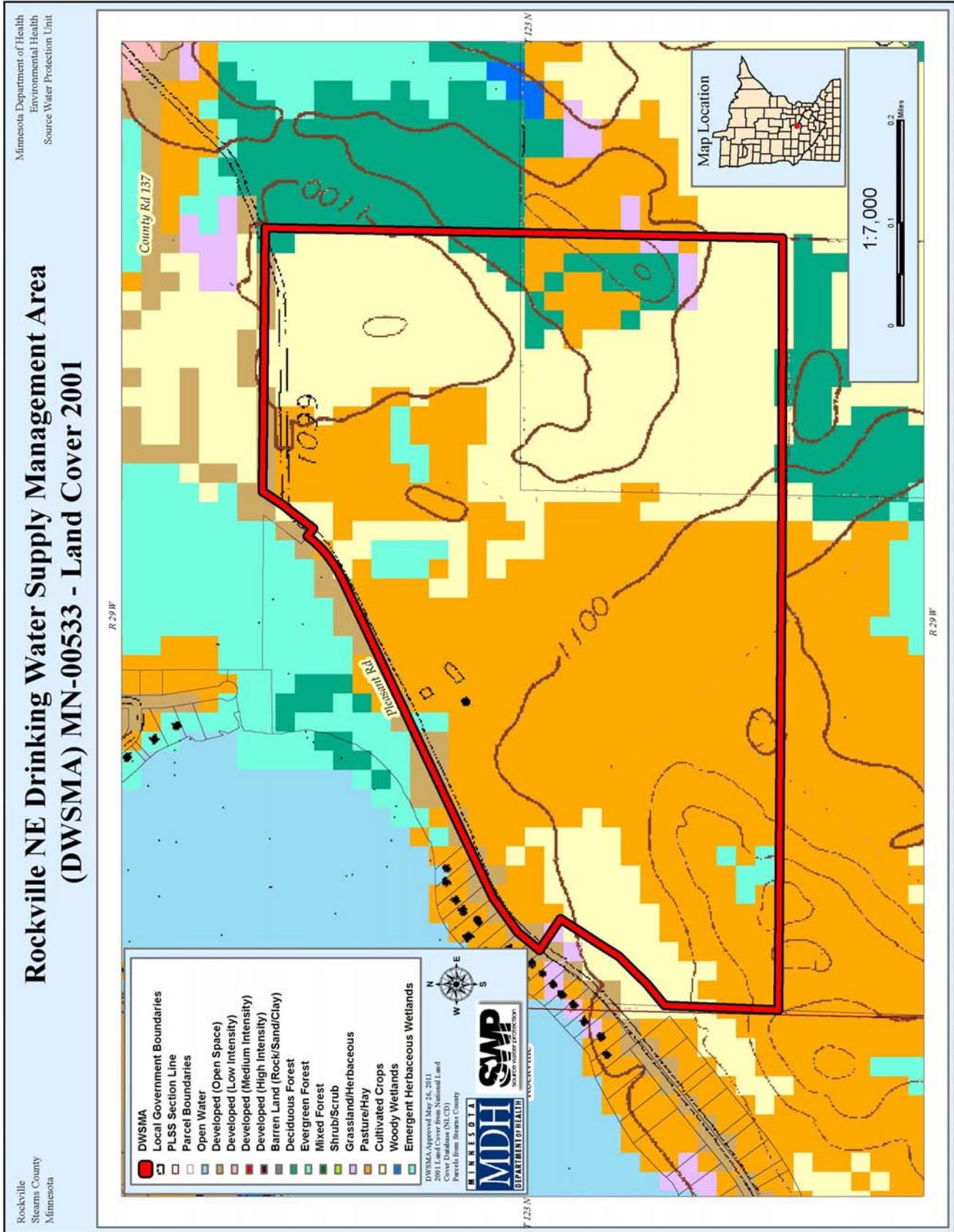
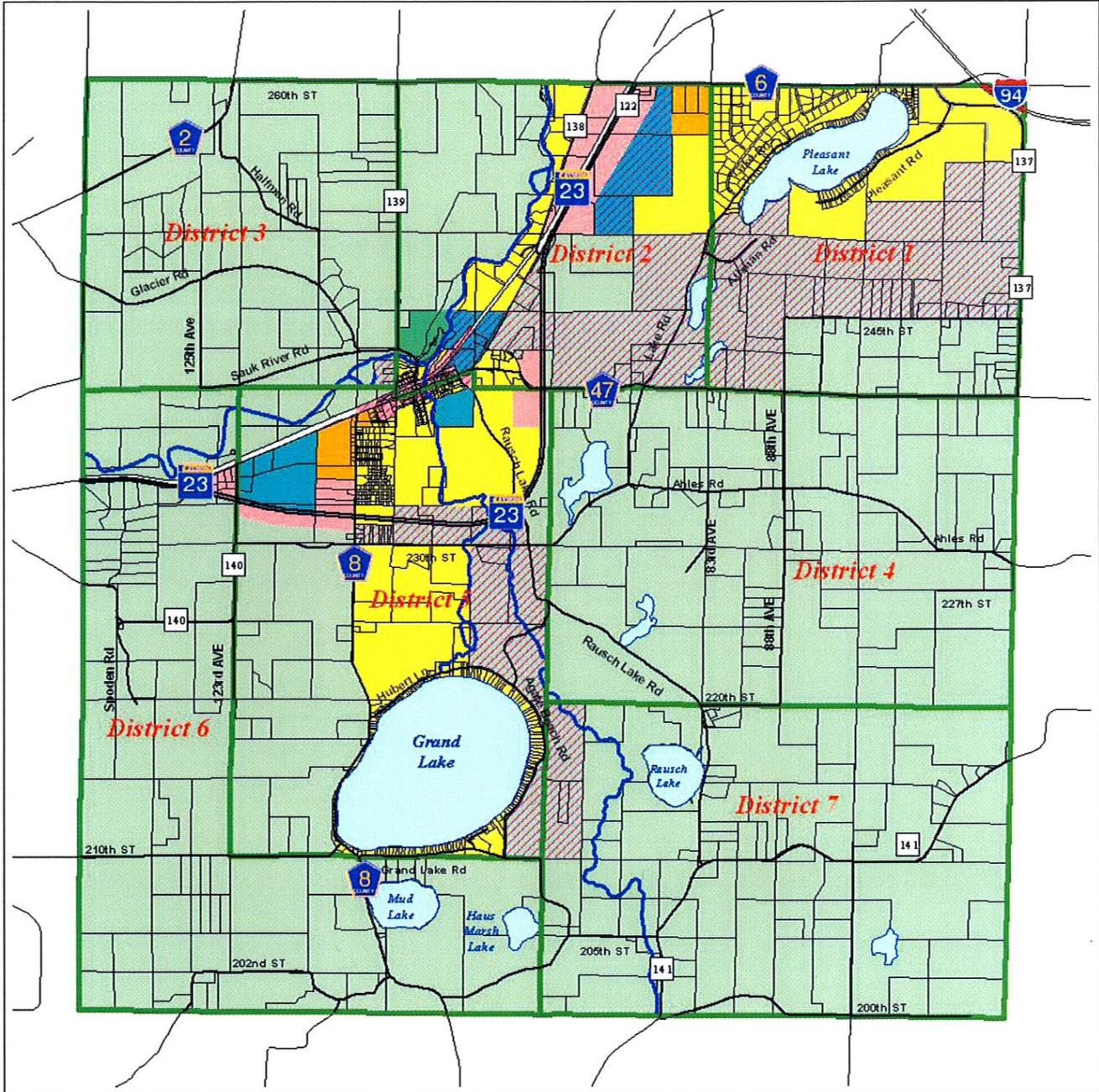


Exhibit 3.2: Future Land-Use Map (from City website)

# Map 4 - 2

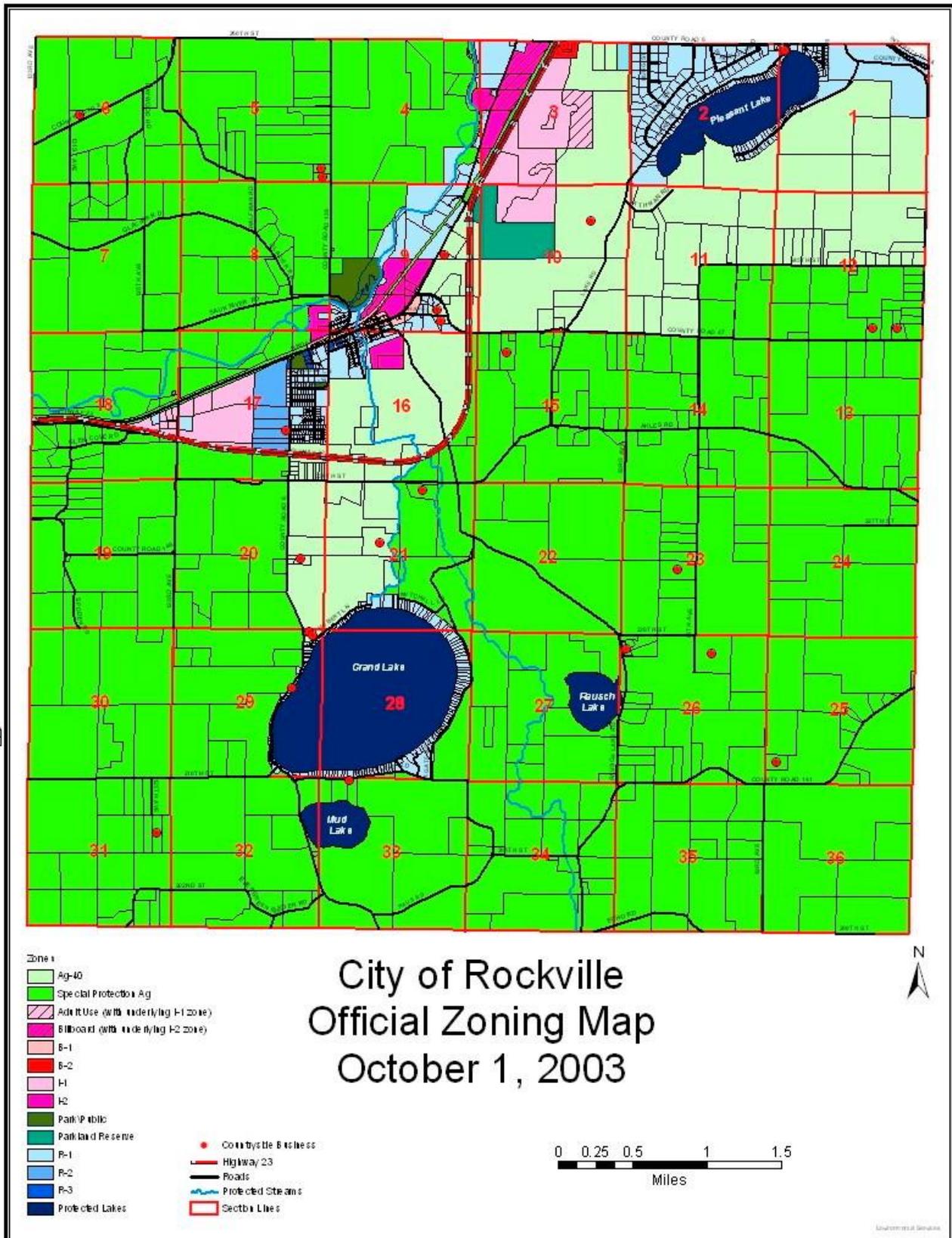
## City of Rockville

### Future Land Use



<b>Legend</b>		Low Density Residential		Water	Map Date: December 3, 2004
		Low/Medium Density Residential		Planning Districts	
		Mixed Use/Density (Residential)			Scale: 1 inch = 1 mile R.F.: 1 : 63,360
		Agricultural Preserve			
		Agricultural Transitional			 
		Commercial Reserve			
		Central Business District			 MUNICIPAL DEVELOPMENT GROUP, INC.
		Possible Neighborhood Commercial			
		Industrial Reserve			
		Business Park/Light Industrial Preserve			
		Park / Public			

Exhibit 4.0: Zoning Map for the City of Rockville (from City website).



### **Exhibit 4.1- Zoning Map Legend Description**

Ag-40	Agricultural, minimum lot size 40 acres
B-1	Central Business District
B-2	General Business District
I-1	Light Industrial
I-2	General Industrial
R-1	Single Family Residential District
R-2	Two Family Residential District
R-3	Multiple Family Residential District
R-R	Rural Residential
R-MH	Rural-Manufactured Home

**Exhibit 5.0- Potential Contaminant Source Inventory Map (PCSI), DWSMA 1**

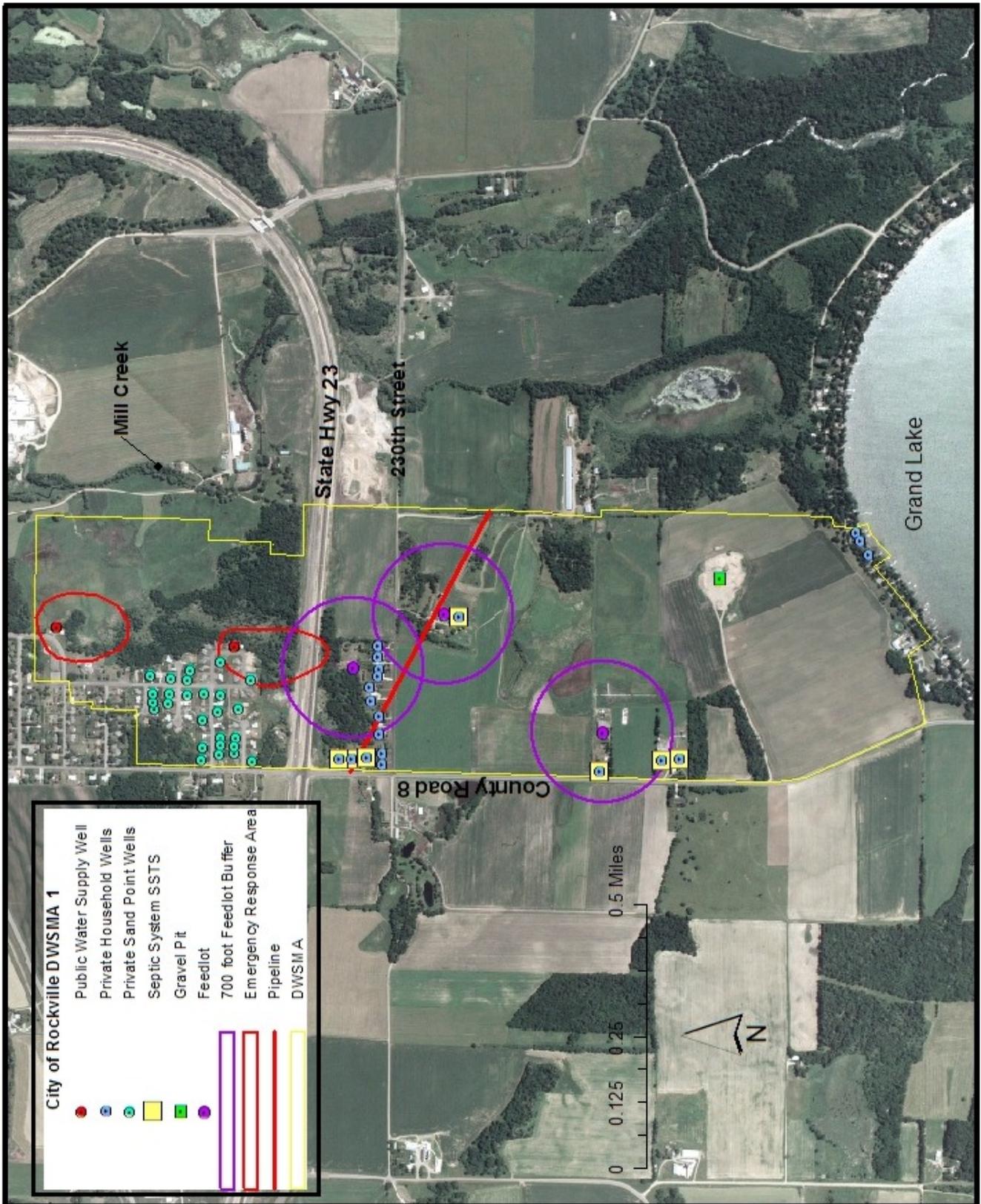


Exhibit 5.1- PCSI Map, DWSMA 1 North

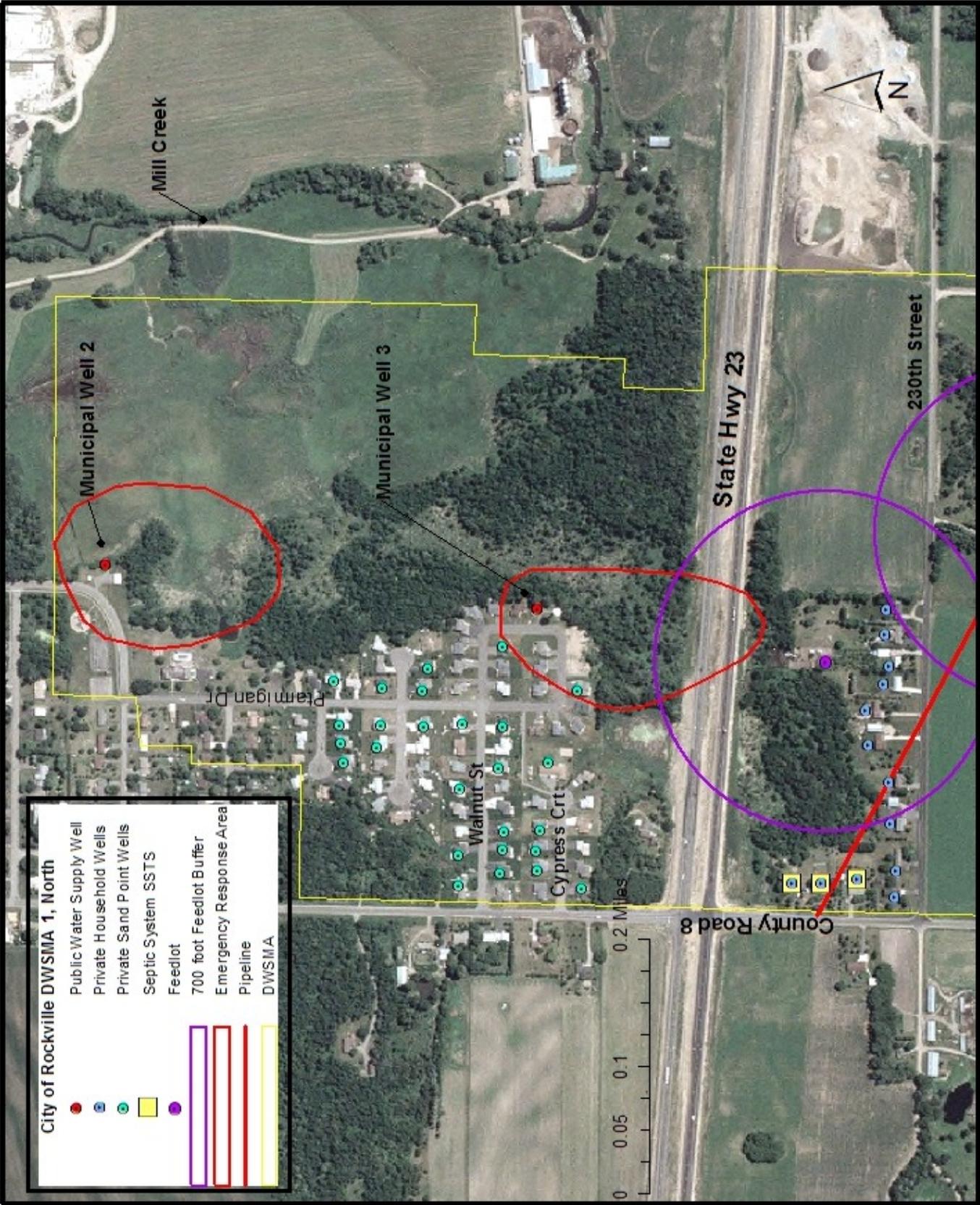


Exhibit 5.2- PCSI Map, DWSMA 1 South

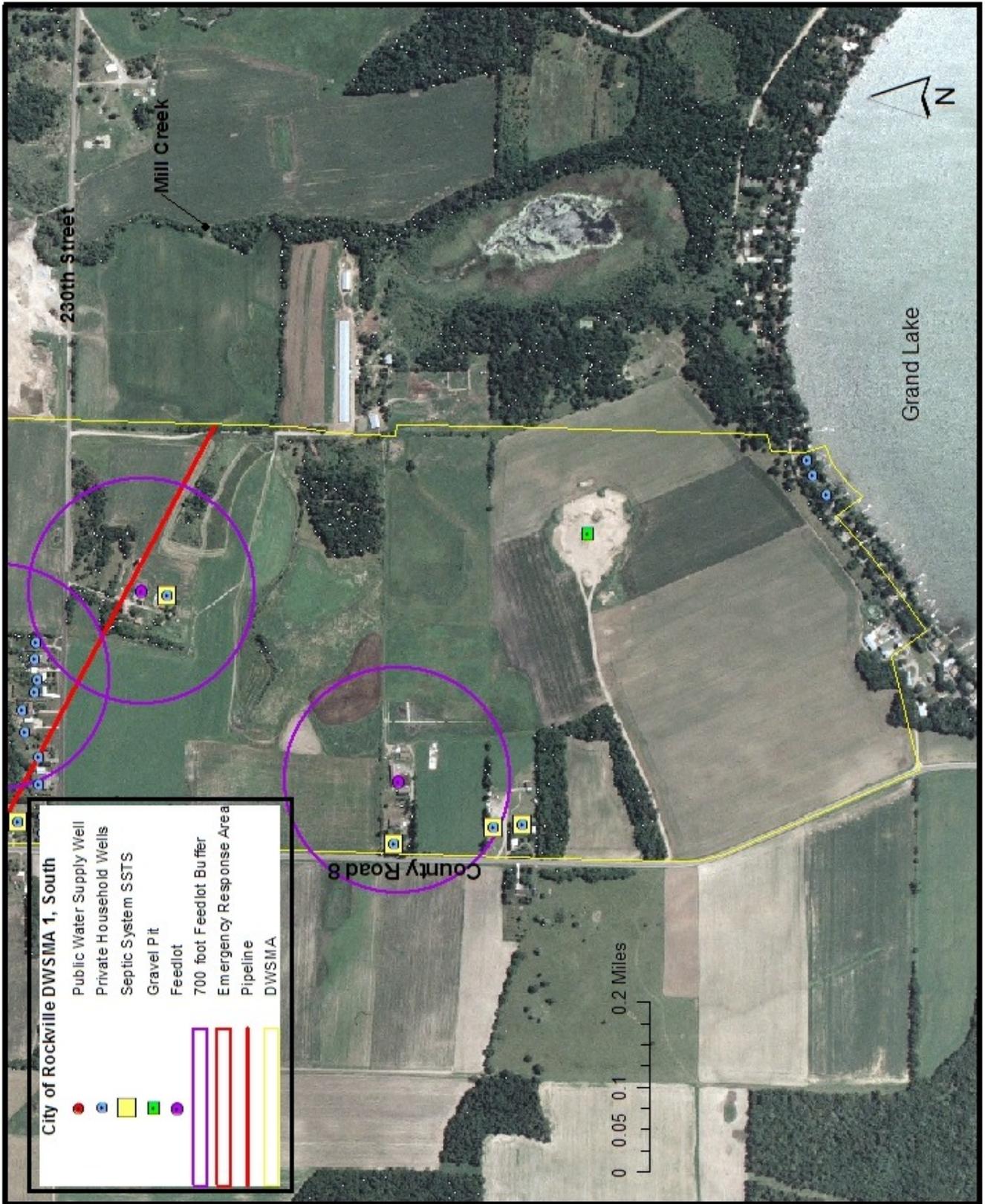
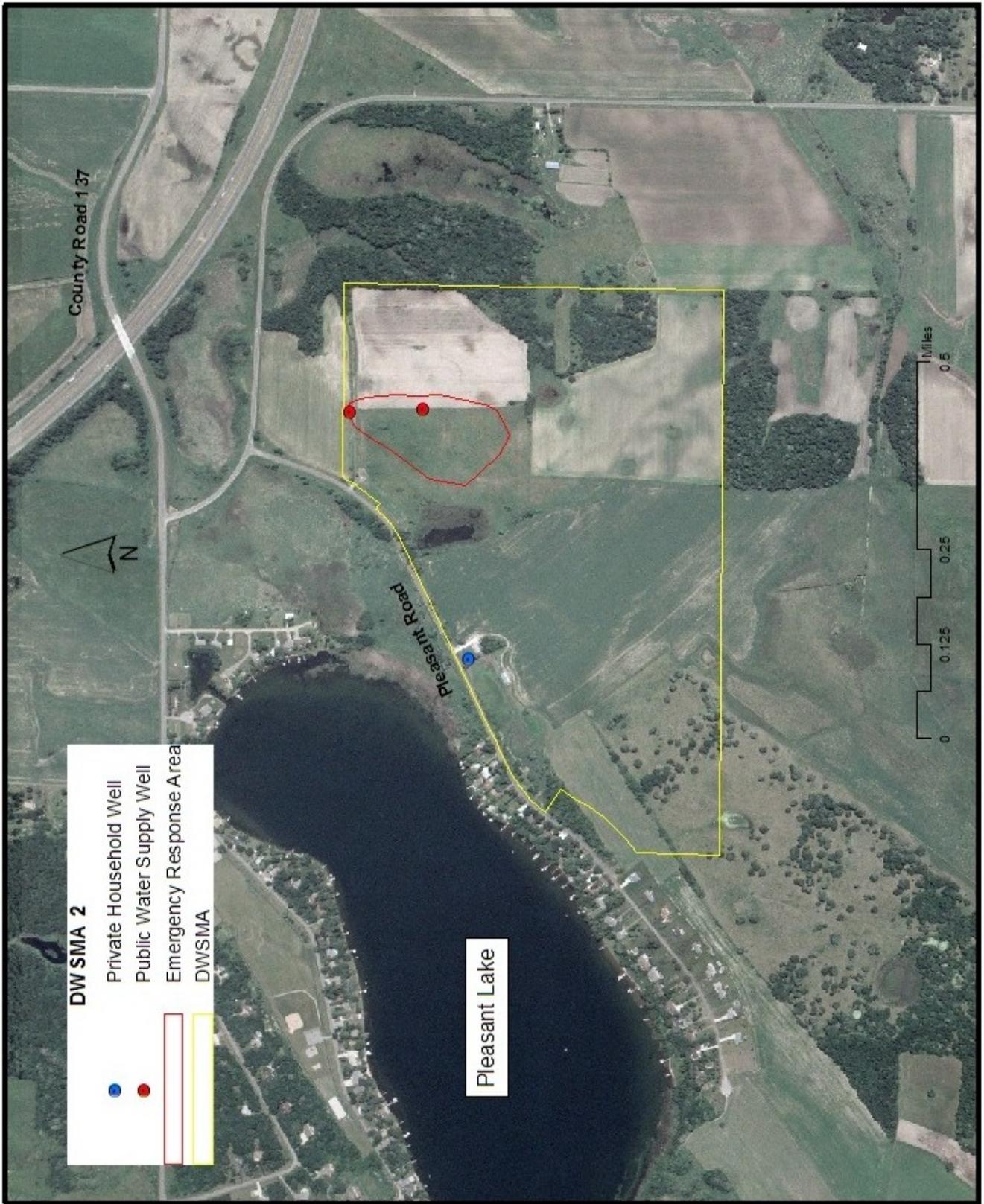


Exhibit 5.3- PCSI Map DWSMA 2



**Exhibit 5.4- PCSI Table, DWSMA 1**

<b>Unique</b>	<b>Name</b>	<b>Type</b>	<b>Address</b>	<b>Parcel</b>	<b>Sec</b>
118132	Rockville Municipal Well 2	Municipal Well			16
595968	Rockville Municipal Well 3	Municipal Well			17
413464	Bill Phillip	Household Well	22446 CR 8	76.41637.0800	20
	Kaspner,John A	Household Well	22478 CR 8	76.41637.0700	20
148581	Elmer Schaefer (David Lang)	Household Well	22592 CR 8	76.41637.0200	20
	Keeville,Jay	Household Well	23060 CR 8	76.41840.0002	17
	Fritz,Dorothy	Household Well	23086 CR 8	76.41840.0001	17
	Hooser,Lewis	Household Well	23106 CR 8	76.41840.0000	17
	Walz,Charles/Cynthia	Household Well	11237 230 <sup>th</sup> St	76.41638.0400	21
215320	OTM Enterprises (Larry Zabinski)	Household Well	11306 230 <sup>th</sup> St	76.41840.0012	17
	Heinen,Brian	Household Well	11324 230 <sup>th</sup> St	76.41840.0011	17
	Weber,Leroy & Janet	Household Well	11332 230 <sup>th</sup> St	76.41840.0010	17
	Chance,James & Joan	Household Well	11360 230 <sup>th</sup> St	76.41840.0009	17
	Goerger, Thomas & Karen	Household Well	11378 230 <sup>th</sup> St	76.41840.0008	17
	Gill,James & Celina	Household Well	11398 230 <sup>th</sup> St	76.41840.0007	17
568965	Jim Jones	Household Well	11434 230 <sup>th</sup> St	76.41840.0006	17
	Wolfley,David Sr	Household Well	11456 230 <sup>th</sup> St	76.41840.0005	17
	Putikka,Nicholas & Shannon	Household Well	11498 230 <sup>th</sup> St	76.41840.0003	17
118188	Frederick Wurst (Daryl Steil)	Household Well	11518 230 <sup>th</sup> St	76.41840.0004	17
719034	Schlicht,Robert (Charles Thomey)	Household Well	11031 Hubert Ln	76.42189.0046	21
719033	Kirscher,John (Joseph McNamara)	Household Well	11049 Hubert Ln	76.42189.0047	21
	Johannes,Dennis	Household Well	11089 Hubert Ln	76.42189.0048	21
	Savoini,Heidi	Sand Point Well	407 Aspen Crt	76.41741.0017	17
	Neidermeier,Colleen	Sand Point Well	410 Aspen Crt	76.41741.0013	17
	Winter,Mark & Michele	Sand Point Well	411 Aspen Crt	76.41741.0018	17
	Parsons,Rachelle	Sand Point Well	500 Aspen Crt	76.41741.0019	17
	Reitmeier,Nathan & Heidi	Sand Point Well	501 Aspen Crt	76.41741.0029	17
	Heying,Steven & Julie	Sand Point Well	504 Aspen Crt	76.41741.0020	17
	Bitker,William	Sand Point Well	512 Cypress Crt	76.41741.0052	17
	Lindbloom,Brian	Sand Point Well	520 Cypress Crt	76.41741.0050	17
	Peterson,Jeffrey & Lisa	Sand Point Well	524 Cypress Crt	76.41741.0049	17
	Karpinski,Joseph & Mary	Sand Point Well	528 Cypress Crt	76.41741.0048	17
	Herberg,Brian	Sand Point Well	533 Cypress Crt	76.41741.0058	17
	Pfannenstein,Steve & Sandy	Sand Point Well	802 Ptarmigan Dr	76.41741.0002	17
	Kunstleben,Richard & Carol	Sand Point Well	503 Tamarck Crt	76.41741.0011	17
	Botz,Timothy & Lori	Sand Point Well	507 Tamarack Crt	76.41741.0010	17
	Neu,Keith & Judith	Sand Point Well	511 Tamarack Crt	76.41741.0009	17
	Christenson,Alan & Joann	Sand Point Well	206 Walnut Cir	76.41741.0071	17
	Garding,Derrick	Sand Point Well	405 Walnut Cir	76.41741.0078	17
	Winter,James & Gina	Sand Point Well	500 Walnut St	76.41741.0037	17
	Egger,Benard	Sand Point Well	501 Walnut St	76.41741.0046	17
	Brink,Kay	Sand Point Well	509 Walnut St	76.41741.0044	17
	Babcock,Bradley & Rebecca	Sand Point Well	512 Walnut St	76.41741.0034	17
	Ruhland,Brian & Mary	Sand Point Well	521 Walnut St	76.41741.0041	17
	Massmann,Keith	Sand Point Well	525 Walnut St	76.41741.0040	17
	Hallinan,Richard & Kathy	Sand Point Well	526 Walnut St	76.41741.0031	17
	Steil,Bradley & Lisa	Sand Point Well	529 Walnut St	76.41741.0039	17
	Gross,Mark & Donna	Sand Point Well	532 Walnut St	76.41741.0030	17

## Subsurface Sewage Treatment Systems (SSTS) – Septics

Name	Address	Parcel	Sec	Status
Hooser, Lewis	23106 CR 8	76.41840.0000	17	A
Fritz, Dorothy	23086 CR 8	76.41840.0001	17	A
Keeville, Jay	23060 CR 8	76.41840.0002	17	A
Elmer Schaefer (David Lang)	22592 CR 8	76.41637.0200	20	A
Kaspner, John A	22478 CR 8	76.41637.0700	20	A
Bill Phillip	22446 CR 8	76.41637.0800	20	A
Walz, Charles/Cynthia	11237 230 <sup>th</sup> St	76.41638.0400	21	A

A=Active, U=Unknown, I=Inactive

## Feedlots

Name	Address	Parcel	Sec	Status
Weber, Leroy & Janet	11332 230 <sup>th</sup> St	76.41840.0010	17	A
Walz, Charles/Cynthia	11237 230 <sup>th</sup> St	76.41638.0400	21	U
Elmer Schaefer (David Lang)	22592 CR 8	76.41637.0200	20	I

A=Active, U=Unknown, I=Inactive

**NuStar Pipeline-** Transports refined petroleum products through 8-inch pipeline

**Gravel Pit-** Clarence Bloch, 21990 CR 8, Parcel 76.41638/0810, Section 21

## PCSI Table DWSMA 2

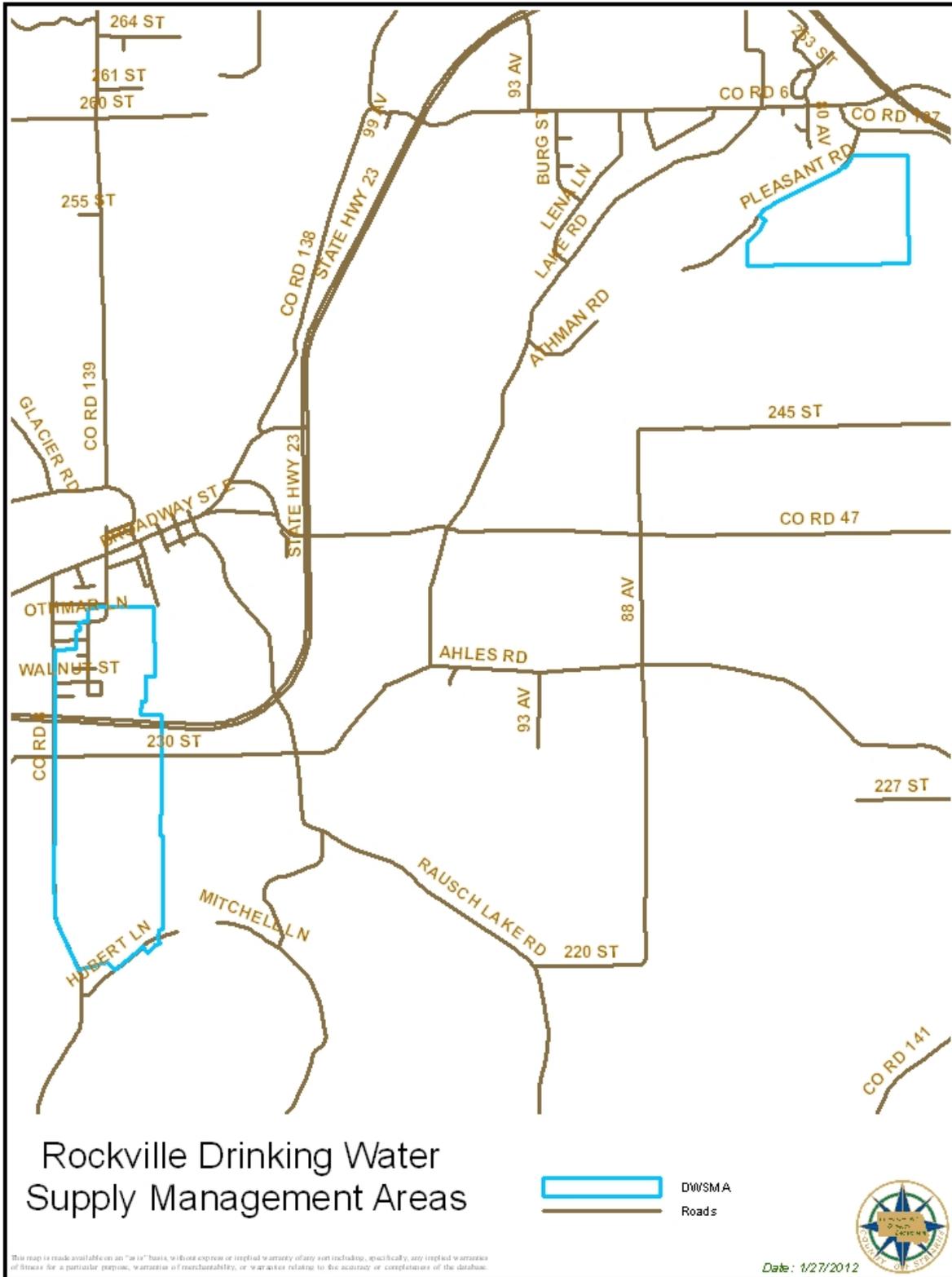
Unique	Name	Type	Address	Parcel	Sec	Status
721760	Municipal Well 4	Municipal Well			1	A
721761	Municipal Well 5	Municipal Well			1	A
329241	City of Rockville	Test Hole	UTME 400815	UTMN 5038832	1	S
329242	City of Rockville	Test Hole	UTME 400825	UTMN 5038634	1	S
329243	City of Rockville	Test Hole	UTME 400845	UTMN 5038917	1	S
557929	James Voigt	Household Well	25614 Pleasant Rd	76.41600.0400	1	A

A= Active, S= Sealed

\*The County Well Index lists 3 Test Holes listed above and were assumed to be active and proposed for use during future aquifer testing. Traut Wells drilled these test holes, did not run casing and grouted to surface once completed. Confirmed in phone conversation.

\*The County Well Index listed James and Jackie Voigt as having 3 wells. Two of those were determined to be exploratory wells drilled by Werner Well Drilling. Well 268976 was drilled on 11/18/2004 and sealed the following day. Well 719026 was drilled on 11/29/2004 and sealed by Traut Wells on 8/9/2005 (Sealing Record H237317) at the same time the above Test Holes were drilled and sealed. Well 719026 will still show up on the Well 5 IWMZ form until the MDH Well Management Unit gets the sealing record entered into their database and changes the well status.

### Exhibit 5.5- Local Travel Corridors (Roads)



## EXHIBIT 6.0- Inner Well Management Zone Forms



Environmental Health Division  
Drinking Water Protection Section  
P.O. Box 64975  
St. Paul, Minnesota 55164-0975

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

PUBLIC WATER SYSTEM INFORMATION							
<b>PWS ID</b>	1730026			<b>COMMUNITY</b>			
<b>NAME</b>	Rockville						
<b>ADDRESS</b>	Rockville Water Superintendent, 229 East Broadway Street, P.O. Box 93, Rockville, MN 56369						
FACILITY (WELL) INFORMATION							
<b>NAME</b>	Well #2			<b>IS THERE A WELL LOG OR ADDITIONAL CONSTRUCTION INFORMATION AVAILABLE?</b> <input type="checkbox"/> YES (Please attach a copy) <input type="checkbox"/> NO <input type="checkbox"/> UNDETERMINED			
<b>FACILITY ID</b>	S02						
<b>UNIQUE WELL NO.</b>	118132						
<b>COUNTY</b>	Stearns						
<b>PWS ID / FACILITY ID</b>	1730026	S02	<b>UNIQUE WELL NO.</b>	118132			
PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)			LOCATION		
		Minimum Distances		Sensitive Well <sup>1</sup>	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)
		Community	Non- community				
<b>Agricultural Related</b>							
*AC1	Agricultural chemical buried piping	50	50		N		
*AC2	Agricultural chemical multiple tanks or containers for residential retail sale or use, no single tank or container exceeding, but aggregate volume exceeding 56 gal. or 100 lbs. dry weight	50	50		N		
ACP	Agricultural chemical tank or container with 25 gal. or more or 100 lbs. or more dry weight, or equipment filling or cleaning area without safeguards	150	150		N		
ACS	Agricultural chemical storage or equipment filling or cleaning area with safeguards	100	100		N		
ACR	Agricultural chemical storage or equipment filling or cleaning area with safeguards and roofed	50	50		N		
ADW	Agricultural drainage well <sup>2</sup> (Class V well - illegal <sup>3</sup> )	50	50		N		
AAT	Anhydrous ammonia tank (stationary tank)	50	50		N		
AB1	Animal building, feedlot, confinement area, or kennel, 0.1 to 1.0 animal unit (stockyard)	50	20	100/40	N		
AB2	Animal building or poultry building, including a horse riding area, more than 1.0 animal unit	50	50	100	N		
ABS	Animal burial area, more than 1.0 animal unit	50	50		N		
FWP	Animal feeding or watering area within a pasture, more than 1.0 animal unit	50	50	100	N		
AF1	Animal feedlot, unroofed, 300 or more animal units (stockyard)	100	100	200	N		
AF2	Animal feedlot, more than 1.0, but less than 300 animal units (stockyard)	50	50	100	N		
AMA	Animal manure application	use discretion	use discretion		N		
REN	Animal rendering plant	50	50		N		
MS1	Manure (liquid) storage basin or lagoon, unpermitted or noncertified	300	300	600	N		
MS2	Manure (liquid) storage basin or lagoon, approved earthen liner	150	150	300	N		
MS3	Manure (liquid) storage basin or lagoon, approved concrete or composite liner	100	100	200	N		
MS4	Manure (solid) storage area, not covered with a roof	100	100	200	N		
OSC	Open storage for crops	use discretion	use discretion		N		
<b>SSTS Related</b>							
AA1	Absorption area of a soil dispersal system, average flow greater than 10,000 gal./day	300	300	600	N		
AA2	Absorption area of a soil dispersal system serving a facility handling infectious or pathological wastes, average flow 10,000 gal./day or less	150	150	300	N		
AA3	Absorption area of a soil dispersal system, average flow 10,000 gal./day or less	50	50	100	N		
AA4	Absorption area of a soil dispersal system serving multiple family residences or a non-residential facility and has the capacity to serve 20 or more persons per day (Class V well) <sup>2</sup>	50/300/150 <sup>4</sup>	50/300/150 <sup>4</sup>	100/600/300 <sup>4</sup>	N		
CSP	Cesspool	75	75	150	N		
AGG	Dry well, leaching pit, seepage pit	75	75	150	N		
*FD1	Floor drain, grate, or trough connected to a buried sewer	50	50		N		
*FD2	Floor drain, grate, or trough if buried sewer is air-tested, approved materials, serving one building, or two or less single-family residences	50	20		N		
*GW1	Gray-water dispersal area	50	50	100	N		
LC1	Large capacity cesspools (Class V well - illegal) <sup>2</sup>	75	75	150	N		

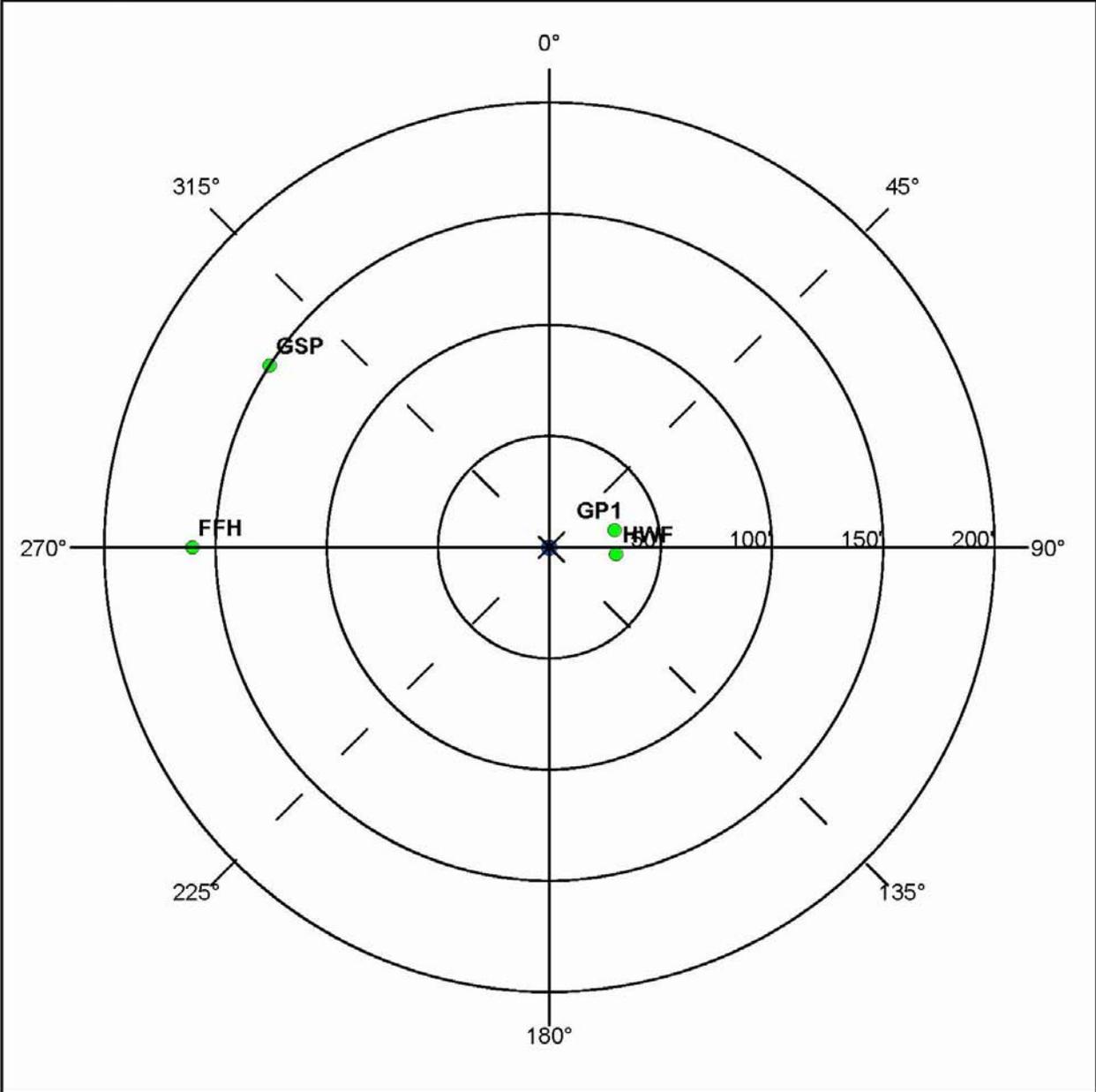
PWS ID / FACILITY ID		1730026	S02	UNIQUE WELL NO.		118132		
PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)				LOCATION		
		Minimum Distances		Sensitive Well*	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)	
		Community	Non-community					
MVW	Motor vehicle waste disposal (Class V well - illegal) <sup>2</sup>	illegal	illegal		N			
PR1	Privy, nonportable	50	50	100	N			
PR2	Portable (privy) or toilet	50	20		N			
*SF1	Watertight sand filter, peat filter, or constructed wetland	50	50		N			
SET	Septic tank	50	50		N			
HTK	Sewage holding tank, watertight	50	50		N			
SS1	Sewage sump capacity 100 gal. or more	50	50		N			
SS2	Sewage sump capacity less than 100 gal., tested, conforming to rule	50	20		N			
*ST1	Sewage treatment device, watertight	50	50		N			
SB1	Sewer, buried, approved materials, tested, serving one building, or two or less single-family residences	50	20		N			
SB2	Sewer, buried, collector, municipal, serving a facility handling infectious or pathological wastes, open-jointed or unapproved materials	50	50		N			
*WB1	Water treatment backwash holding basin, reclaim basin, or surge tank with a direct sewer connection	50	50		N			
*WB2	Water treatment backwash holding basin, reclaim basin, or surge tank with a backflow protected sewer connection	20	20		N			
<b>Land Application</b>								
SPT	Land spreading area for sewage, septage, or sludge	50	50	100	N			
<b>Solid Waste Related</b>								
COS	Commercial compost site	50	50		N			
CD1	Construction or demolition debris disposal area	50	50	100	N			
*HW1	Household solid waste disposal area, single residence	50	50	100	N			
LF1	Landfill, permitted demolition debris, dump, or mixed municipal solid waste from multiple persons	300	300	600	N			
SVY	Scrap yard	50	50		N			
SWT	Solid waste transfer station	50	50		N			
<b>Storm Water Related</b>								
SD1	Storm water drain pipe, 8 inches or greater in diameter	50	20		N			
SWI	Storm water drainage well <sup>2</sup> (Class V well - illegal) <sup>2</sup>	50	50		N			
SM1	Storm water pond greater than 5000 gal.	50	35		N			
<b>Wells and Borings</b>								
*EB1	Elevator boring, not conforming to rule	50	50		N			
*EB2	Elevator boring, conforming to rule	20	20		N			
MON	Monitoring well	record dist.	record dist.		N			
WEL	Operating well	record dist.	record dist.		N			
UUW	Unused, unsealed well or boring	50	50		N			
<b>General</b>								
*CR1	Cistern or reservoir, buried, nonpressurized water supply	20	20		N			
PLM	Contaminant plume	50	50		N			
*CW1	Cooling water pond, industrial	50	50	100	N			
DC1	Deicing chemicals, bulk road	50	50	100	N			
*ET1	Electrical transformer storage area, oil-filled	50	50		N			
GRV	Grave or mausoleum	50	50		N			
GP1	Gravel pocket or French drain for clear water drainage only	20	20		Y	30	N	
*HS1	Hazardous substance buried piping	50	50		N			
HS2	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight, without safeguards	150	150		N			
HS3	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight with safeguards	100	100		N			
HS4	Hazardous substance multiple storage tanks or containers for residential retail sale or use, no single tank or container exceeding 56 gal. or 100 lbs., but aggregate volume exceeding	50	50		N			
HWF	Highest water or flood level	50	N/A		Y	30	N	
*HG1	Horizontal ground source closed loop heat exchanger buried piping	50	50		N			
*HG2	Horizontal ground source closed loop heat exchanger buried piping and horizontal piping, approved materials and heat transfer fluid	50	10		N			
IWD	Industrial waste disposal well (Class V well) <sup>2</sup>	illegal <sup>2</sup>	illegal <sup>2</sup>		N			
IWS	Interceptor, including a flammable waste or sediment	50	50		N			
OH1	Ordinary high water level of a stream, river, pond, lake, reservoir, or drainage ditch (holds water six months or more)	50	35		N			



PWS ID / FACILITY ID	1730026 S02	UNIQUE WELL NO.	118132
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**SETBACK DISTANCES** All potential contaminant sources must be noted on sketch.

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



Were the isolation distances maintained for the new sources of contamination?	Y	N	N/A
Is the system monitoring existing nonconforming sources of contamination?	Y	N	N/A

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

INSPECTOR	Neiman, Dave	DATE	1 - 24 - 2012
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PWS ID / FACILITY ID	1730026 S02	UNIQUE WELL NO.	118132
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RECOMMENDED WELLHEAD PROTECTION (WHP) MEASURES	WHP MEASURE IMPLEMENTED? Y or N	DATE VERIFIED

**COMMENTS**

9/7/2003 - Location for PCSI Type BLD (bearing = 0, distance = 0, inventory date: 5/4/1999) could not be determined.  
9/7/2003 - Location for PCSI Type GSP (bearing = 225, distance = 0, inventory date: 5/4/1999) could not be determined.  
9/7/2003 - Location for PCSI Type PLE (bearing = 0, distance = 0, inventory date: 5/4/1999) could not be determined.

**For further information, please contact:**

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

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

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

**PUBLIC WATER SYSTEM INFORMATION**

<b>PWS ID</b>	1730026	<b>COMMUNITY</b>
<b>NAME</b>	Rockville	
<b>ADDRESS</b>	Rockville Water Superintendent, 229 East Broadway Street, P.O. Box 93, Rockville, MN 56369	

**FACILITY (WELL) INFORMATION**

<b>NAME</b>	Well #3	<b>IS THERE A WELL LOG OR ADDITIONAL CONSTRUCTION INFORMATION AVAILABLE?</b> <input type="checkbox"/> YES (Please attach a copy) <input type="checkbox"/> NO <input type="checkbox"/> UNDETERMINED
<b>FACILITY ID</b>	S03	
<b>UNIQUE WELL NO.</b>	595968	
<b>COUNTY</b>	Stearns	

<b>PWS ID / FACILITY ID</b>	1730026 S03	<b>UNIQUE WELL NO.</b>	595968
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PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)				LOCATION	
		Minimum Distances		Sensitive Well*	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)
		Community	Non- community				

**Agricultural Related**

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

**SSTS Related**

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

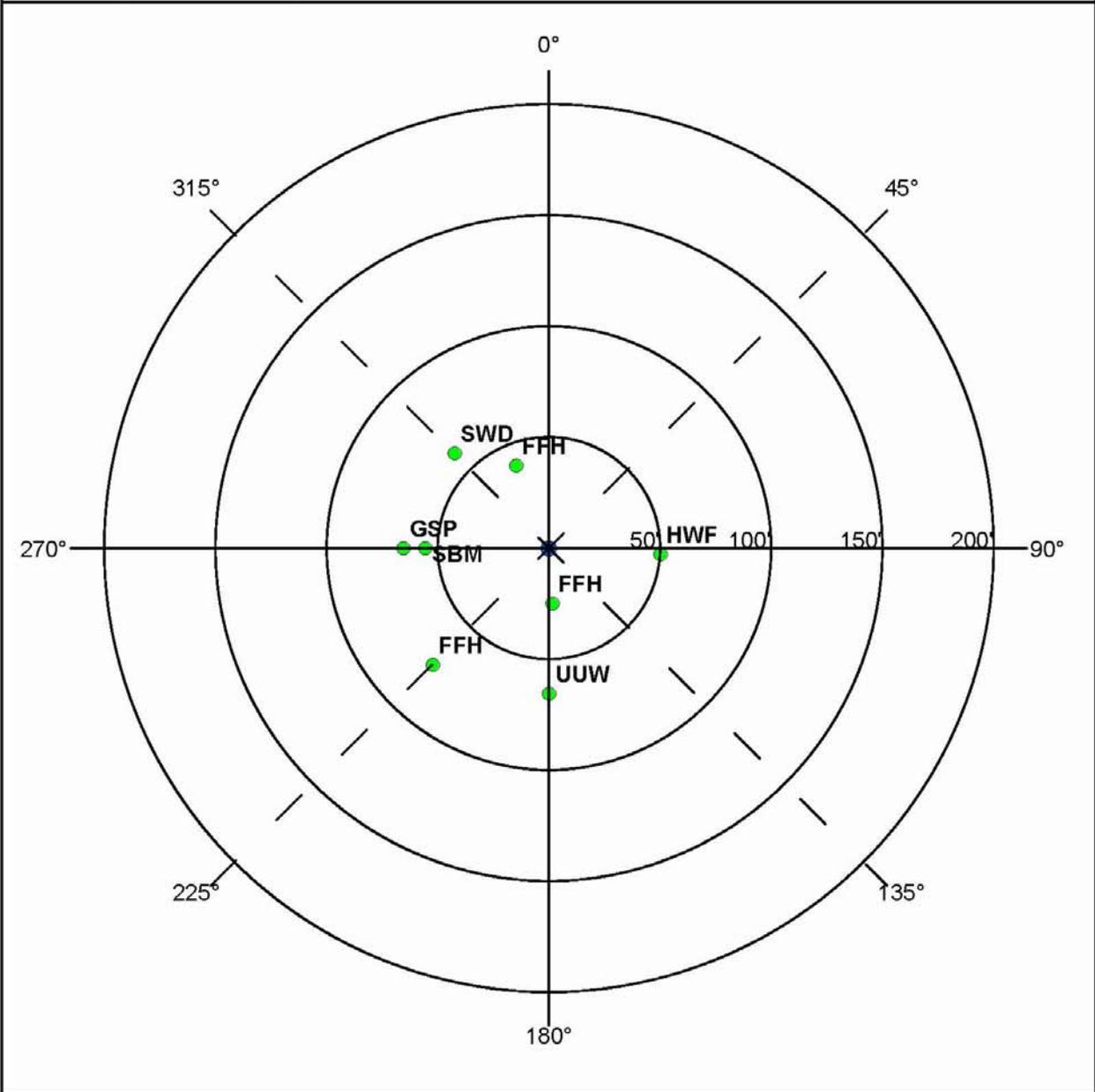
PWS ID / FACILITY ID		1730026	S03	UNIQUE WELL NO.		595968		
PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)				LOCATION		
		Minimum Distances		Sensitive Well*	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)	
		Community	Non-community					
MVW	Motor vehicle waste disposal (Class V well - illegal) <sup>2</sup>	illegal	illegal		N			
PR1	Privy, nonportable	50	50	100	N			
PR2	Portable (privy) or toilet	50	20		N			
*SF1	Watertight sand filter, peat filter, or constructed wetland	50	50		N			
SET	Septic tank	50	50		N			
HTK	Sewage holding tank, watertight	50	50		N			
SS1	Sewage sump capacity 100 gal. or more	50	50		N			
SS2	Sewage sump capacity less than 100 gal., tested, conforming to rule	50	20		N			
*ST1	Sewage treatment device, watertight	50	50		N			
SB1	Sewer, buried, approved materials, tested, serving one building, or two or less single-family residences	50	20		N			
SB2	Sewer, buried, collector, municipal, serving a facility handling infectious or pathological wastes, open-jointed or unapproved materials	50	50		N			
*WB1	Water treatment backwash holding basin, reclaim basin, or surge tank with a direct sewer connection	50	50		N			
*WB2	Water treatment backwash holding basin, reclaim basin, or surge tank with a backflow protected sewer connection	20	20		N			
<b>Land Application</b>								
SPT	Land spreading area for sewage, septage, or sludge	50	50	100	N			
<b>Solid Waste Related</b>								
COS	Commercial compost site	50	50		N			
CD1	Construction or demolition debris disposal area	50	50	100	N			
*HW1	Household solid waste disposal area, single residence	50	50	100	N			
LF1	Landfill, permitted demolition debris, dump, or mixed municipal solid waste from multiple persons	300	300	600	N			
SVY	Scrap yard	50	50		N			
SWT	Solid waste transfer station	50	50		N			
<b>Storm Water Related</b>								
SD1	Storm water drain pipe, 8 inches or greater in diameter	50	20		N			
SWI	Storm water drainage well <sup>2</sup> (Class V well - illegal) <sup>2</sup>	50	50		N			
SM1	Storm water pond greater than 5000 gal.	50	35		N			
<b>Wells and Borings</b>								
*EB1	Elevator boring, not conforming to rule	50	50		N			
*EB2	Elevator boring, conforming to rule	20	20		N			
MON	Monitoring well	record dist.	record dist.		N			
WEL	Operating well	record dist.	record dist.		N			
UUW	Unused, unsealed well or boring	50	50		Y	65	N	
<b>General</b>								
*CR1	Cistern or reservoir, buried, nonpressurized water supply	20	20		N			
PLM	Contaminant plume	50	50		N			
*CW1	Cooling water pond, industrial	50	50	100	N			
DC1	Deicing chemicals, bulk road	50	50	100	N			
*ET1	Electrical transformer storage area, oil-filled	50	50		N			
GRV	Grave or mausoleum	50	50		N			
GP1	Gravel pocket or French drain for clear water drainage only	20	20		N			
*HS1	Hazardous substance buried piping	50	50		N			
HS2	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight, without safeguards	150	150		N			
HS3	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight with safeguards	100	100		N			
HS4	Hazardous substance multiple storage tanks or containers for residential retail sale or use, no single tank or container exceeding 56 gal. or 100 lbs., but aggregate volume exceeding	50	50		N			
HWF	Highest water or flood level	50	N/A		Y	50	N	
*HG1	Horizontal ground source closed loop heat exchanger buried piping	50	50		N			
*HG2	Horizontal ground source closed loop heat exchanger buried piping and horizontal piping, approved materials and heat transfer fluid	50	10		N			
IWD	Industrial waste disposal well (Class V well) <sup>2</sup>	illegal <sup>2</sup>	illegal <sup>2</sup>		N			
IWS	Interceptor, including a flammable waste or sediment	50	50		N			
OH1	Ordinary high water level of a stream, river, pond, lake, reservoir, or drainage ditch (holds water six months or more)	50	35		N			



<b>PWS ID / FACILITY ID</b>	1730026 S03	<b>UNIQUE WELL NO.</b>	595968
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**SETBACK DISTANCES** All potential contaminant sources must be noted on sketch.

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



Were the isolation distances maintained for the new sources of contamination?	Y	N	N/A
Is the system monitoring existing nonconforming sources of contamination?	Y	N	N/A

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

<b>INSPECTOR</b>	Neiman, Dave	<b>DATE</b>	1 - 24 - 2012
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PWS ID / FACILITY ID	1730026 S03	UNIQUE WELL NO.	595968
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RECOMMENDED WELLHEAD PROTECTION (WHP) MEASURES	WHP MEASURE IMPLEMENTED? Y or N	DATE VERIFIED

**COMMENTS**

9/7/2003 - Location for PCSI Type SBP (bearing = 0, distance = 100 , inventory date: 5/4/1999 ) could not be determined.  
9/7/2003 - Location for PCSI Type HWF (bearing = 90, distance = 0 , inventory date: 5/4/1999 ) could not be determined.  
9/7/2003 - Location for PCSI Type PLE (bearing = 0, distance = 60 , inventory date: 5/4/1999 ) could not be determined.

**For further information, please contact:**

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

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

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

**PUBLIC WATER SYSTEM INFORMATION**

<b>PWS ID</b>	1730026	<b>COMMUNITY</b>
<b>NAME</b>	Rockville	
<b>ADDRESS</b>	Rockville Water Superintendent, 229 East Broadway Street, P.O. Box 93, Rockville, MN 56369	

**FACILITY (WELL) INFORMATION**

<b>NAME</b>	Well #4	<b>IS THERE A WELL LOG OR ADDITIONAL CONSTRUCTION INFORMATION AVAILABLE?</b> <input type="checkbox"/> YES (Please attach a copy) <input type="checkbox"/> NO <input type="checkbox"/> UNDETERMINED
<b>FACILITY ID</b>	S04	
<b>UNIQUE WELL NO.</b>	721760	
<b>COUNTY</b>	Stearns	

<b>PWS ID / FACILITY ID</b>	1730026 S04	<b>UNIQUE WELL NO.</b>	721760
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PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)				LOCATION	
		Minimum Distances		Sensitive Well*	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)
		Community	Non- community				

**Agricultural Related**

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

**SSTS Related**

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

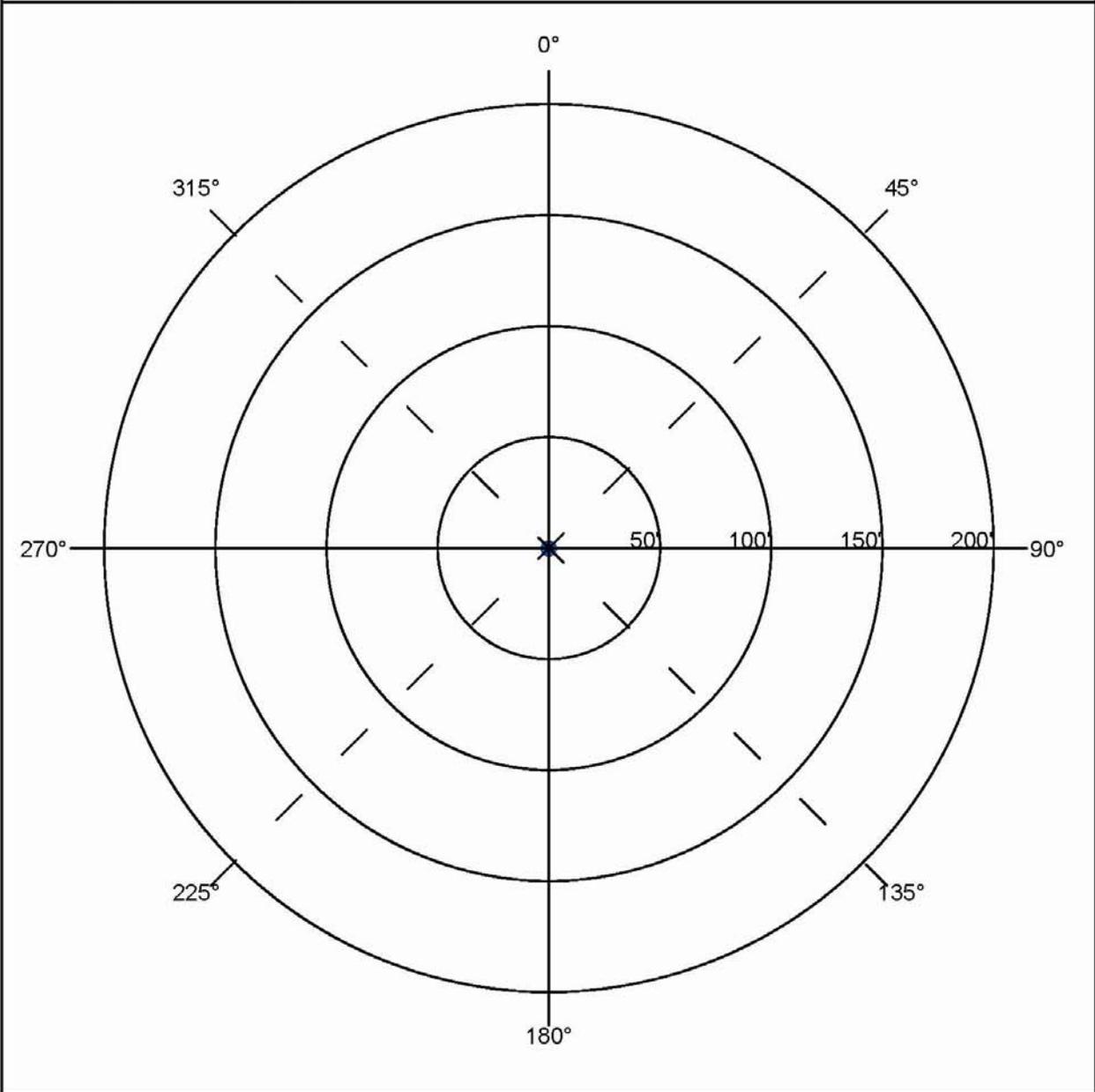
PWS ID / FACILITY ID		1730026	S04	UNIQUE WELL NO.		721760		
PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)				LOCATION		
		Minimum Distances		Sensitive Well*	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)	
		Community	Non-community					
MVW	Motor vehicle waste disposal (Class V well - illegal) <sup>2</sup>	illegal	illegal		N			
PR1	Privy, nonportable	50	50	100	N			
PR2	Portable (privy) or toilet	50	20		N			
*SF1	Watertight sand filter, peat filter, or constructed wetland	50	50		N			
SET	Septic tank	50	50		N			
HTK	Sewage holding tank, watertight	50	50		N			
SS1	Sewage sump capacity 100 gal. or more	50	50		N			
SS2	Sewage sump capacity less than 100 gal., tested, conforming to rule	50	20		N			
*ST1	Sewage treatment device, watertight	50	50		N			
SB1	Sewer, buried, approved materials, tested, serving one building, or two or less single-family residences	50	20		N			
SB2	Sewer, buried, collector, municipal, serving a facility handling infectious or pathological wastes, open-jointed or unapproved materials	50	50		N			
*WB1	Water treatment backwash holding basin, reclaim basin, or surge tank with a direct sewer connection	50	50		N			
*WB2	Water treatment backwash holding basin, reclaim basin, or surge tank with a backflow protected sewer connection	20	20		N			
<b>Land Application</b>								
SPT	Land spreading area for sewage, septage, or sludge	50	50	100	N			
<b>Solid Waste Related</b>								
COS	Commercial compost site	50	50		N			
CD1	Construction or demolition debris disposal area	50	50	100	N			
*HW1	Household solid waste disposal area, single residence	50	50	100	N			
LF1	Landfill, permitted demolition debris, dump, or mixed municipal solid waste from multiple persons	300	300	600	N			
SVY	Scrap yard	50	50		N			
SWT	Solid waste transfer station	50	50		N			
<b>Storm Water Related</b>								
SD1	Storm water drain pipe, 8 inches or greater in diameter	50	20		N			
SWI	Storm water drainage well <sup>2</sup> (Class V well - illegal) <sup>2</sup>	50	50		N			
SM1	Storm water pond greater than 5000 gal.	50	35		N			
<b>Wells and Borings</b>								
*EB1	Elevator boring, not conforming to rule	50	50		N			
*EB2	Elevator boring, conforming to rule	20	20		N			
MON	Monitoring well	record dist.	record dist.		N			
WEL	Operating well	record dist.	record dist.		N			
UUW	Unused, unsealed well or boring	50	50		N			
<b>General</b>								
*CR1	Cistern or reservoir, buried, nonpressurized water supply	20	20		N			
PLM	Contaminant plume	50	50		N			
*CW1	Cooling water pond, industrial	50	50	100	N			
DC1	Deicing chemicals, bulk road	50	50	100	N			
*ET1	Electrical transformer storage area, oil-filled	50	50		N			
GRV	Grave or mausoleum	50	50		N			
GP1	Gravel pocket or French drain for clear water drainage only	20	20		N			
*HS1	Hazardous substance buried piping	50	50		N			
HS2	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight, without safeguards	150	150		N			
HS3	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight with safeguards	100	100		N			
HS4	Hazardous substance multiple storage tanks or containers for residential retail sale or use, no single tank or container exceeding 56 gal. or 100 lbs., but aggregate volume exceeding	50	50		N			
HWF	Highest water or flood level	50	N/A		N			
*HG1	Horizontal ground source closed loop heat exchanger buried piping	50	50		N			
*HG2	Horizontal ground source closed loop heat exchanger buried piping and horizontal piping, approved materials and heat transfer fluid	50	10		N			
IWD	Industrial waste disposal well (Class V well) <sup>2</sup>	illegal <sup>2</sup>	illegal <sup>2</sup>		N			
IWS	Interceptor, including a flammable waste or sediment	50	50		N			
OH1	Ordinary high water level of a stream, river, pond, lake, reservoir, or drainage ditch (holds water six months or more)	50	35		N			



<b>PWS ID / FACILITY ID</b>	1730026 S04	<b>UNIQUE WELL NO.</b>	721760
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<b>SETBACK DISTANCES</b>	All potential contaminant sources must be noted on sketch.
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Record the distance and approximate compass bearing of each potential contaminant source from the well, and identify the source using the "Source Code". Unlabeled points on the map are unsealed wells.



Were the isolation distances maintained for the new sources of contamination?	Y	N	N/A
Is the system monitoring existing nonconforming sources of contamination?	Y	N	N/A

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

<b>INSPECTOR</b>	Neiman, Dave	<b>DATE</b>	1 - 24 - 2012
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PWS ID / FACILITY ID	1730026 S04	UNIQUE WELL NO.	721760
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RECOMMENDED WELLHEAD PROTECTION (WHP) MEASURES	WHP MEASURE IMPLEMENTED? Y or N	DATE VERIFIED

COMMENTS

For further information, please contact:

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

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

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

**PUBLIC WATER SYSTEM INFORMATION**

<b>PWS ID</b>	1730026	<b>COMMUNITY</b>
<b>NAME</b>	Rockville	
<b>ADDRESS</b>	Rockville Water Superintendent, 229 East Broadway Street, P.O. Box 93, Rockville, MN 56369	

**FACILITY (WELL) INFORMATION**

<b>NAME</b>	Well #5	<b>IS THERE A WELL LOG OR ADDITIONAL CONSTRUCTION INFORMATION AVAILABLE?</b> <input type="checkbox"/> YES (Please attach a copy) <input type="checkbox"/> NO <input type="checkbox"/> UNDETERMINED
<b>FACILITY ID</b>	S05	
<b>UNIQUE WELL NO.</b>	721761	
<b>COUNTY</b>	Stearns	

<b>PWS ID / FACILITY ID</b>	1730026    S05	<b>UNIQUE WELL NO.</b>	721761
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PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)				LOCATION	
		Minimum Distances		Sensitive Well*	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)
		Community	Non- community				

**Agricultural Related**

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

**SSTS Related**

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

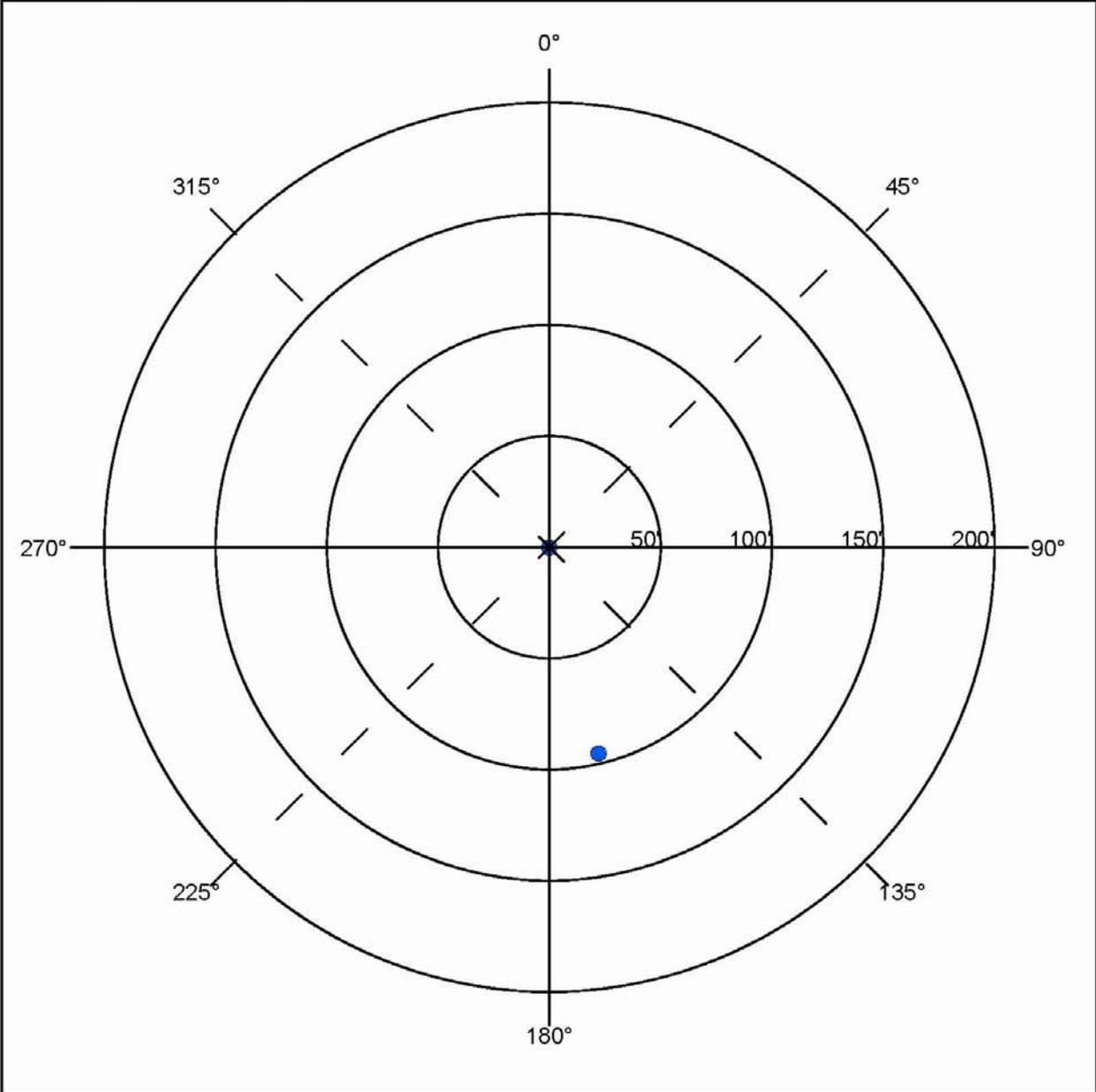
PWS ID / FACILITY ID		1730026	S05	UNIQUE WELL NO.		721761		
PCSI CODE	ACTUAL OR POTENTIAL CONTAMINATION SOURCE	ISOLATION DISTANCES (FEET)				LOCATION		
		Minimum Distances		Sensitive Well*	Within 200 Ft. Y / N / U	Dist. from Well	Est. (?)	
		Community	Non-community					
MVW	Motor vehicle waste disposal (Class V well - illegal) <sup>2</sup>	illegal	illegal		N			
PR1	Privy, nonportable	50	50	100	N			
PR2	Portable (privy) or toilet	50	20		N			
*SF1	Watertight sand filter, peat filter, or constructed wetland	50	50		N			
SET	Septic tank	50	50		N			
HTK	Sewage holding tank, watertight	50	50		N			
SS1	Sewage sump capacity 100 gal. or more	50	50		N			
SS2	Sewage sump capacity less than 100 gal., tested, conforming to rule	50	20		N			
*ST1	Sewage treatment device, watertight	50	50		N			
SB1	Sewer, buried, approved materials, tested, serving one building, or two or less single-family residences	50	20		N			
SB2	Sewer, buried, collector, municipal, serving a facility handling infectious or pathological wastes, open-jointed or unapproved materials	50	50		N			
*WB1	Water treatment backwash holding basin, reclaim basin, or surge tank with a direct sewer connection	50	50		N			
*WB2	Water treatment backwash holding basin, reclaim basin, or surge tank with a backflow protected sewer connection	20	20		N			
<b>Land Application</b>								
SPT	Land spreading area for sewage, septage, or sludge	50	50	100	N			
<b>Solid Waste Related</b>								
COS	Commercial compost site	50	50		N			
CD1	Construction or demolition debris disposal area	50	50	100	N			
*HW1	Household solid waste disposal area, single residence	50	50	100	N			
LF1	Landfill, permitted demolition debris, dump, or mixed municipal solid waste from multiple persons	300	300	600	N			
SVY	Scrap yard	50	50		N			
SWT	Solid waste transfer station	50	50		N			
<b>Storm Water Related</b>								
SD1	Storm water drain pipe, 8 inches or greater in diameter	50	20		N			
SWI	Storm water drainage well <sup>2</sup> (Class V well - illegal) <sup>2</sup>	50	50		N			
SM1	Storm water pond greater than 5000 gal.	50	35		N			
<b>Wells and Borings</b>								
*EB1	Elevator boring, not conforming to rule	50	50		N			
*EB2	Elevator boring, conforming to rule	20	20		N			
MON	Monitoring well	record dist.	record dist.		N			
WEL	Operating well	record dist.	record dist.		Y	95		
UUW	Unused, unsealed well or boring	50	50		N			
<b>General</b>								
*CR1	Cistern or reservoir, buried, nonpressurized water supply	20	20		N			
PLM	Contaminant plume	50	50		N			
*CW1	Cooling water pond, industrial	50	50	100	N			
DC1	Deicing chemicals, bulk road	50	50	100	N			
*ET1	Electrical transformer storage area, oil-filled	50	50		N			
GRV	Grave or mausoleum	50	50		N			
GP1	Gravel pocket or French drain for clear water drainage only	20	20		N			
*HS1	Hazardous substance buried piping	50	50		N			
HS2	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight, without safeguards	150	150		N			
HS3	Hazardous substance tank or container, above ground or underground, 56 gal. or more, or 100 lbs. or more dry weight with safeguards	100	100		N			
HS4	Hazardous substance multiple storage tanks or containers for residential retail sale or use, no single tank or container exceeding 56 gal. or 100 lbs., but aggregate volume exceeding	50	50		N			
HWF	Highest water or flood level	50	N/A		N			
*HG1	Horizontal ground source closed loop heat exchanger buried piping	50	50		N			
*HG2	Horizontal ground source closed loop heat exchanger buried piping and horizontal piping, approved materials and heat transfer fluid	50	10		N			
IWD	Industrial waste disposal well (Class V well) <sup>2</sup>	illegal <sup>2</sup>	illegal <sup>2</sup>		N			
IWS	Interceptor, including a flammable waste or sediment	50	50		N			
OH1	Ordinary high water level of a stream, river, pond, lake, reservoir, or drainage ditch (holds water six months or more)	50	35		N			



<b>PWS ID / FACILITY ID</b>	1730026 S05	<b>UNIQUE WELL NO.</b>	721761
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<b>SETBACK DISTANCES</b>	All potential contaminant sources must be noted on sketch.
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Record the distance and approximate compass bearing of each potential contaminant source from the well, and identify the source using the "Source Code". Unlabeled points on the map are unsealed wells.



Were the isolation distances maintained for the new sources of contamination?	Y	N	N/A
Is the system monitoring existing nonconforming sources of contamination?	Y	N	N/A

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

<b>INSPECTOR</b>	Neiman, Dave	<b>DATE</b>	1 - 24 - 2012
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PWS ID / FACILITY ID	1730026 S05	UNIQUE WELL NO.	721761
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RECOMMENDED WELLHEAD PROTECTION (WHP) MEASURES	WHP MEASURE IMPLEMENTED? Y or N	DATE VERIFIED

COMMENTS

For further information, please contact:

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

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

### Exhibit 7.0: City of Rockville Sanitary Sewer Infrastructure

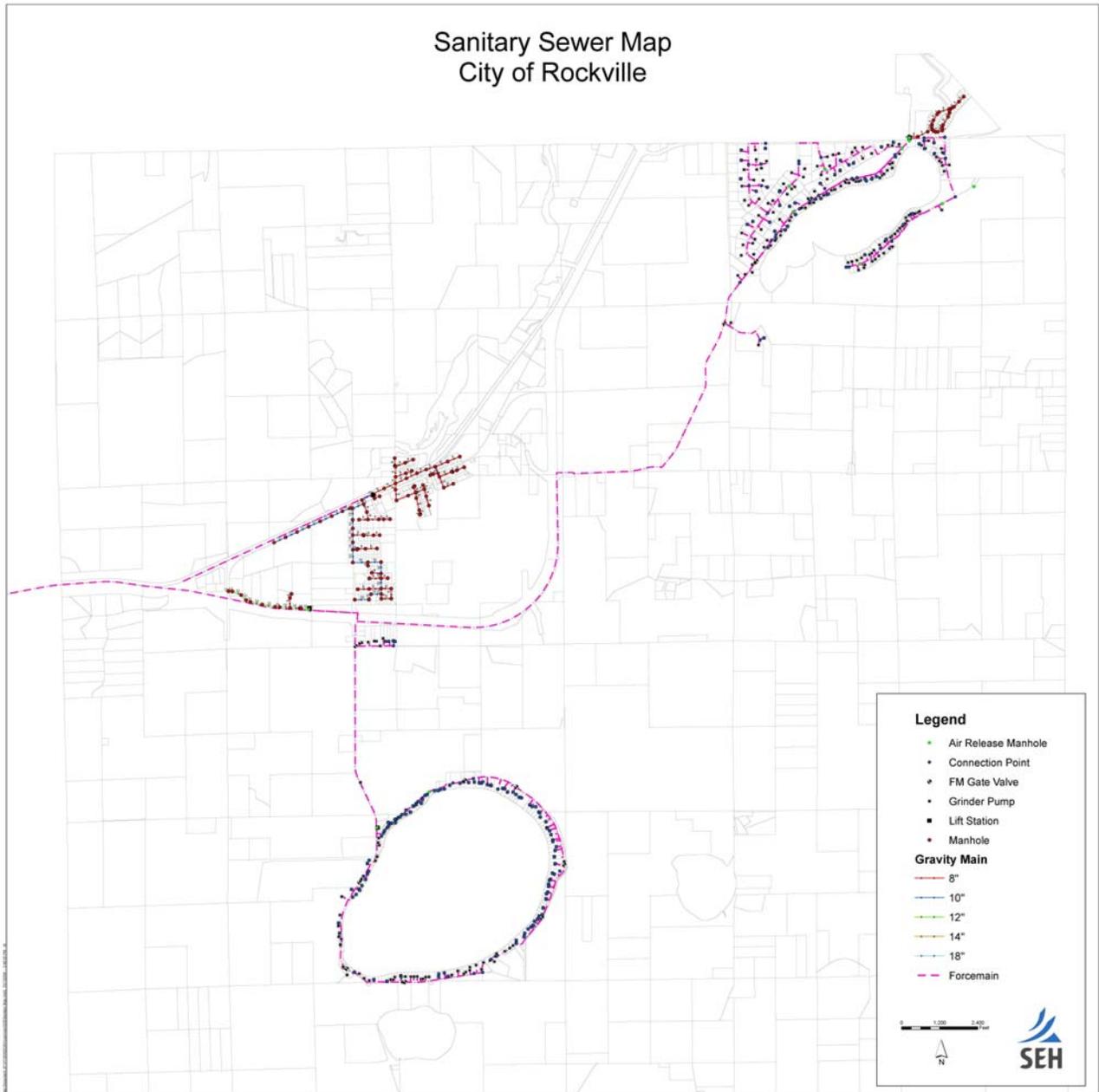
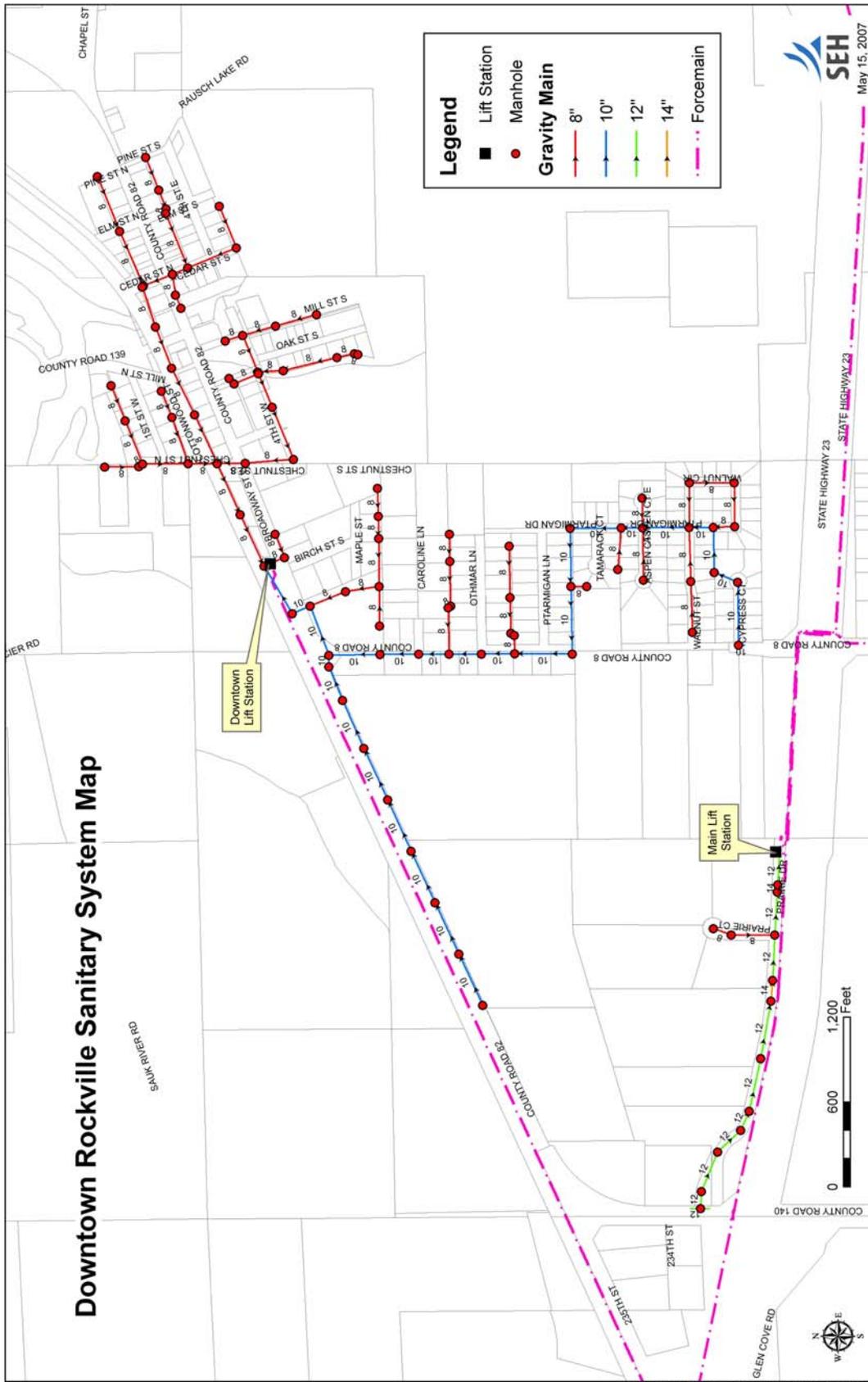


Exhibit 7.1: City of Rockville DWSMA 1 Sanitary Sewer Infrastructure



**Exhibit 7.2: City of Rockville DWSMA 2 Sanitary Sewer Infrastructure**

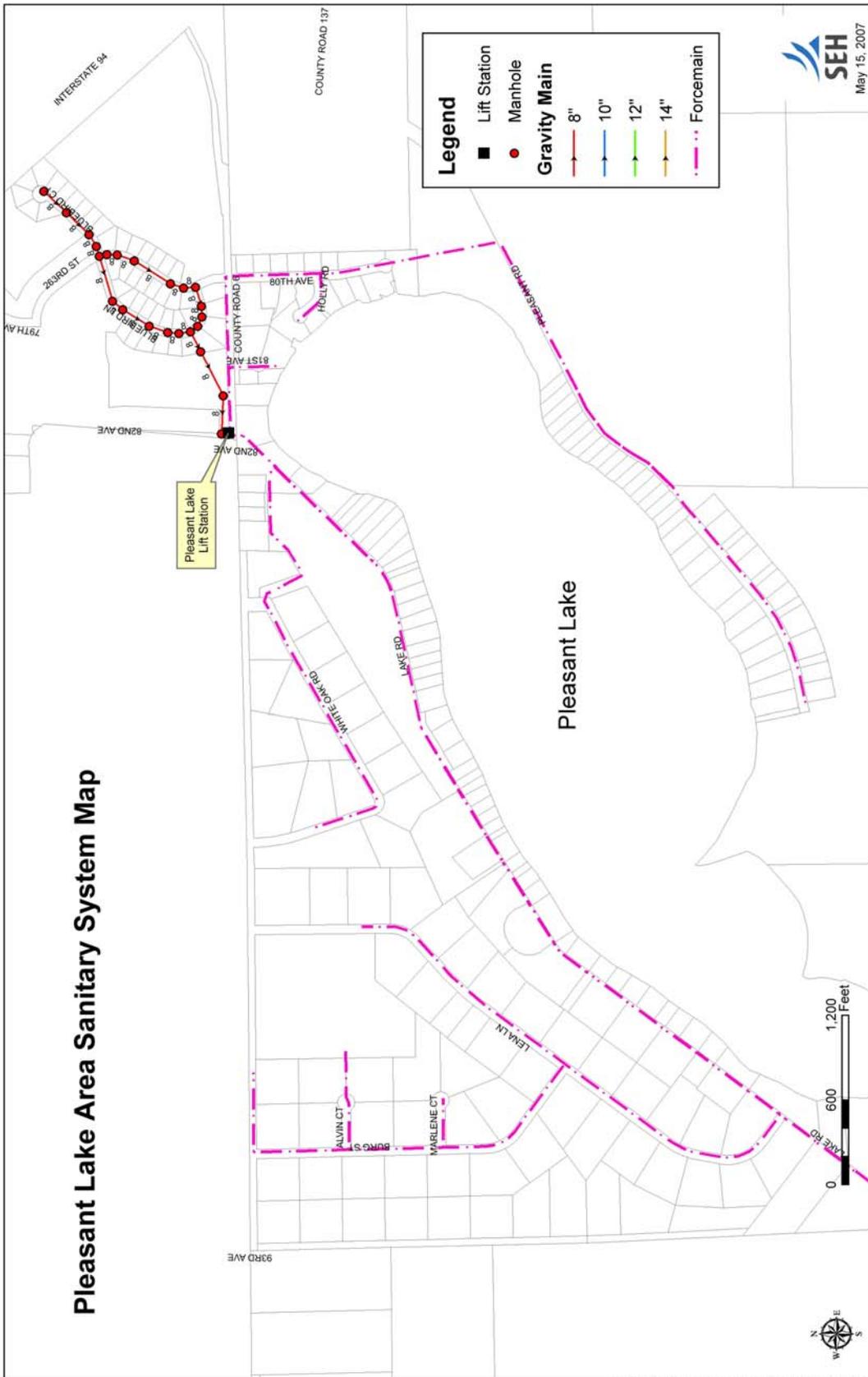
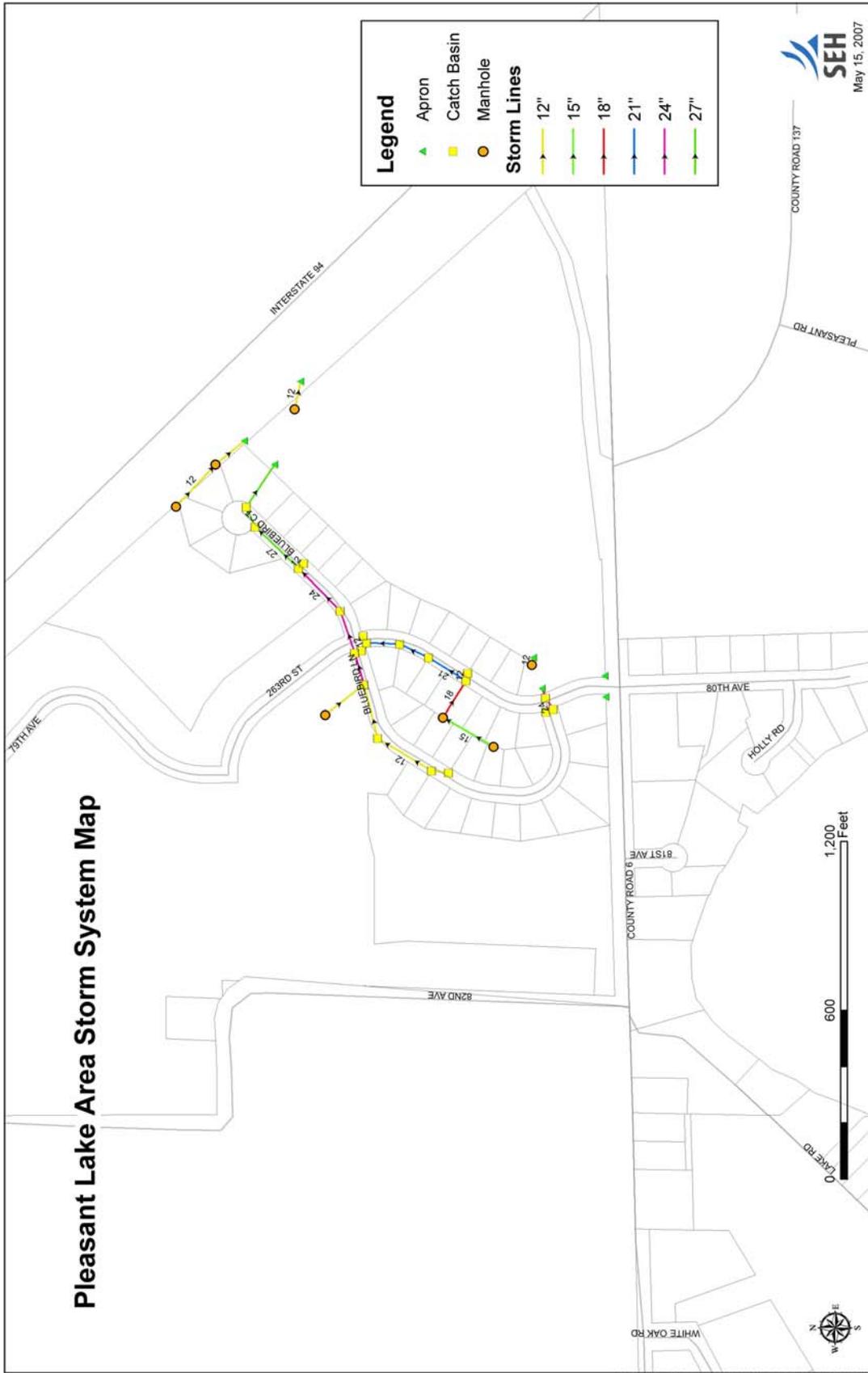


Exhibit 7.3: City of Rockville DWSMA 2 Stormwater Infrastructure



**Exhibit 8.0: Consumer Confidence Report**  
**City of Rockville**  
2010 Drinking Water Report

The City of Rockville is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2010. The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

Source of Water

The City of Rockville provides drinking water to its residents from a groundwater source: four wells ranging from 42 to 93 feet deep, that draw water from the Quaternary Buried Artesian aquifer.

The water provided to customers may meet drinking water standards, but the Minnesota Department of Health has also made a determination as to how vulnerable the source of water may be to future contamination incidents. If you wish to obtain the entire source water assessment regarding your drinking water, please call 651-201-4700 or 1-800-818-9318 (and press 5) during normal business hours. Also, you can view it on line at [www.health.state.mn.us/divs/eh/water/swp/swa](http://www.health.state.mn.us/divs/eh/water/swp/swa).

Call 320-251-5836 if you have questions about the City of Rockville drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.

Results of Monitoring

No contaminants were detected at levels that violated federal drinking water standards. However, some contaminants were detected in trace amounts that were below legal limits. The table that follows shows the contaminants that were detected in trace amounts last year. (Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for in 2010. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.)

Key to abbreviations:

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

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

MRDL—Maximum Residual Disinfectant Level.

MRDLG—Maximum Residual Disinfectant Level Goal.

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

90th Percentile Level—This is the value obtained after disregarding 10 percent of the samples taken that had the highest levels. (For example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result, which represents 10 percent of the

samples.) Note: In situations in which only 5 samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.

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

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

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

nd—No Detection.

N/A—Not Applicable (does not apply).

Contaminant (units)	MCLG	MCL	Level Found		Typical Source of Contaminant
			Range (2010)	Average /Result*	
Barium (ppm)	2	2	N/A	.14	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Combined Radium (pCi/l) (09/27/2007)	0	5.4	N/A	1.2	Erosion of natural deposits.
Fluoride (ppm)	4	4	1-1.6	1.43	State of Minnesota requires all municipal water systems to add fluoride to the drinking water to promote strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Haloacetic Acids (HAA5) (ppb)	0	60	N/A	12.8	By-product of drinking water disinfection.
Nitrate (as Nitrogen) (ppm)	10.4	10.4	nd-1.9	1.9	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
TTHM (Total trihalomethanes) (ppb)	0	80	N/A	33.3	By-product of drinking water disinfection.

Contaminant (units)	Level Found		Typical Source of Contaminant
	Range (2010)	Average/ Result*	
Radon (pCi/l) (05/03/2007)	N/A	42	Erosion of natural deposits.

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

Radon is a radioactive gas which is naturally occurring in some groundwater. It poses a lung cancer risk when 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 4,000 picoCuries per liter 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 Maximum Contaminant Level (MCL) of 300 pCi/l may apply. Minnesota plans to adopt an Indoor Air Program once the Radon Rule is finalized.

Contaminant (units)	MRDLG	MRDL	****	*****	Typical Source of Contaminant
Chlorine (ppm)	4	4	.22-1.23	.91	Water additive used to control microbes.

\*\*\*\*Highest and Lowest Monthly Average.

\*\*\*\*\*Highest Quarterly Average.

Contaminant (units)	MCLG	AL	90% Level	# sites over AL	Typical Source of Contaminant
Copper (ppm) (06/05/2008)	1.3	1.3	.2	0 out of 10	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb) (06/05/2008)	0	15	3	0 out of 10	Corrosion of household plumbing systems; Erosion of natural deposits.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Rockville is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Some contaminants do not have Maximum Contaminant Levels established for them. These unregulated contaminants are assessed using state standards known as health risk limits to determine if they pose a threat to human health. If unacceptable levels of an unregulated contaminant are found, the response is the same as if an MCL has been exceeded; the water system must inform its customers and take other corrective actions. In the table that follows are the unregulated contaminants that were detected:

Contaminant (units)	Level Found		Typical Source of Contaminant
	Range (2010)	Average/ Result	
Nickel (ppb)	N/A	59	Erosion of natural deposits; Discharge from industrial sites.
Sodium (ppm)	N/A	3.31	Erosion of natural deposits.
Sulfate (ppm)	N/A	14.7	Erosion of natural deposits.

### Compliance with National Primary Drinking Water Regulations

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

Contaminants that may be present in source water include:

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

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

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

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

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

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

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

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

**Exhibit 9.0: List of Local Units of Government**

Leigh Lenzmeier	Chairperson	Stearns County Board
Jeff Janssen	Chairperson	St. Joseph Township Board
Jeff Hagen	Mayor	City of Rockville
Chuck Uphoff	Chairperson	Stearns County SWCD
Holly Kovarik	President	Sauk River Watershed District Organization
Karen Voz,	Planner	MDH, Source Water Protection Unit (SWPU)
Scott Palmer	President	Grand Lake Improvement District

**Exhibit 10.0: Rockville Wellhead Protection Team**

Rick Hansen	Water Superintendent, Wellhead Protection Team Manager
Rena Weber	City of Rockville Administrator
Duane P. Willenbring	Rockville City Council Member
Shamus Tamble	Representing Local Ag Producers, Rockville Area
Karen Voz	MDH-SWP Principle Planner
Dave Neiman	MRWA Wellhead Protection Plan Technician
Sue McGuire	Stearns County ESD
Carrie Raber	Stearns County SWCD
Holly Kovarik	Sauk River Watershed District Representative

**Exhibit 11.0: Acronym Definitions**

<b>BMP</b>	Best Management Practices
<b>BWSR</b>	Board of Water and Soil Resources
<b>CRP</b>	Conservation Reserve Program
<b>DNR</b>	Department of Natural Resources
<b>DWSMA</b>	Drinking Water Supply Management Area
<b>EPA</b>	Environmental Protection Area
<b>EQIP</b>	Environmental Quality Incentive Program
<b>ERA</b>	Emergency Response Area
<b>ESD</b>	Environmental Services Department
<b>IWMZ</b>	Inner Well Management Zone
<b>LUG</b>	Local Units of Government
<b>MDH</b>	Minnesota Department of Health
<b>MnDOT</b>	Minnesota Department of Transportation
<b>MPCA</b>	Minnesota Pollution Control Agency
<b>MRWA</b>	Minnesota Rural Water Association
<b>NRCS</b>	Natural Resource Conservation Service
<b>OHWM</b>	Ordinary High Water Mark
<b>PCSI</b>	Potential Contaminant Source Inventory
<b>PWS</b>	Public Water Supply
<b>SRWD</b>	Sauk River Watershed District
<b>SSTS</b>	Subsurface Sewage Treatment System
<b>SWCD</b>	Soil and Water Conservation District
<b>SWP</b>	Source Water Protection Unit
<b>TMDL</b>	Total Maximum Daily Load
<b>TU</b>	Tritium Unit
<b>WHP</b>	Wellhead Protection
<b>WHPA</b>	Wellhead Protection Area

## Exhibit 12.0: Management Strategy Yearly Synopsis

(\*) = done on a yearly basis

Year	Action Strategy	Responsibility	Completed
2012	Construct an article to be published in the Rockville Newsletter explaining the WHP efforts (A-1b)	City Staff	
	Purchase and install a Wellhead Protection Area sign for DWSMA 2 (A-1c)	City Staff	
	Contact local well owners explaining the WHPP and send an information packets (B-1a)	City Staff	
	Cooperate with the SRWD on implementing the Municipal Stormwater Assessment Plan (B-3c)	City Staff	
	Official letter to DNR requesting to be notified if high-capacity well is proposed within 1.5 miles (B-5a)	Mayor/Council/Staff	
	Collect water samples from City Wells 2 and 3, Grand Lake and a wetland between the lake and the City wells during the summer and have analyzed for stable isotopes (F-1d)	WHP Mgr	
*	Continue working with CMWEA to encourage other educational opportunities (A-1d)	WHP Mgr/City Staff	
*	Participate in annual Rocori 4 <sup>th</sup> Grade Water Festival (A-1e)	WHP Mgr/ City Staff	
*	Continue working with SRWD on implementing the Mill Creek TMDL initiatives (B-3d)	WHP Mgr/ City Staff	
*	Continue attempting to locate private storage tanks or pits within DWSMA's (B-4a)	WHP Mgr/City Staff	
*	Send fact sheets to any new business that may have a Class V well (B-6a)	City Staff	
*	Explore available options to upgrade Pleasant Road (C-1a)	WHP Mgr/City Staff	
*	Maintain isolation distances and Implement IWMZ strategies (D-1b through D-1d)	WHP Mgr	
*	Explore options concerning the close proximity of the Pleasant Lake lift station (E-1a)	WHP Mgr/City Staff	
*	Report to City Council on Implementation progress / funding, then annual report to MDH (H-1a & 1b)	WHP Mgr	
2013	Collect and assemble a comprehensive packet of "fact sheets" to be available for residents (A-1a)	WHP Mgr/City Staff	
	Contact Stearns Co. ESD and request status for private SSTS, if suspected non-compliance, inspection (B-1c)	City Staff/Council	
	Apply for MDH grants to cooperate with landowner and upgrade tiling system for Well 2 ERA (B-3b)	WHP Mgr/City Staff	
	Seek a meeting with local responders, local cities, MPCA and MnDOT to open a dialogue for Hwy 23 (C-1b)	WHP Mgr/City Staff	
	Cooperate with MDH to collect and submit the following water samples (F-1b)	WHP Mgr/City Staff	
*	Continue working with CMWEA to encourage other educational opportunities (A-1d)	WHP Mgr/City Staff	
*	Participate in annual Rocori 4 <sup>th</sup> Grade Water Festival (A-1e)	WHP Mgr/ City Staff	
*	Continue working with SRWD on implementing the Mill Creek TMDL initiatives (B-3d)	WHP Mgr/ City Staff	
*	Continue attempting to locate private storage tanks or pits within DWSMA's (B-4a)	WHP Mgr/City Staff	
*	Send fact sheets to any new business that may have a Class V well (B-6a)	City Staff	
*	Explore available options to upgrade Pleasant Road (C-1a)	WHP Mgr/City Staff	
*	Maintain isolation distances and Implement IWMZ strategies (D-1b through D-1d)	WHP Mgr	
*	Explore options concerning the close proximity of the Pleasant Lake lift station (E-1a)	WHP Mgr/City Staff	
*	Report to City Council on Implementation progress / funding, then annual report to MDH (H-1a & 1b)	WHP Mgr	
2014	Contact local landowners with info concerning identification and sealing of unused/unsealed wells (B-1b)	City Staff	
	Cooperate with Stearns Co. SWCD and MRWA in providing BMP's to local ag landowners (B-2a)	WHP Mgr/City Staff	
	Continue efforts to increase involvement in establishing rain-gardens and rain-barrels (B-3a)	WHP Mgr/City Staff	
	Work closely with landowner holding the Interim Use Permit for the gravel pit (B-4b)	City Staff/Council	
	Contact NuStar Energy Inc. request consideration of pipeline running through the City's DWSMA (C-1c)	City Staff/Council	

	December: 2.5 yr self assessment of implementation of WHPP, document put in file (H-1c)	City Staff	
*	Continue working with CMWEA to encourage other educational opportunities (A-1d)	WHP Mgr/City Staff	
*	Participate in annual Rocori 4 <sup>th</sup> Grade Water Festival (A-1e)	WHP Mgr/ City Staff	
*	Continue working with SRWD on implementing the Mill Creek TMDL initiatives (B-3d)	WHP Mgr/ City Staff	
*	Continue attempting to locate private storage tanks or pits within DWSMA's (B-4a)	WHP Mgr/City Staff	
*	Send fact sheets to any new business that may have a Class V well (B-6a)	City Staff	
*	Explore available options to upgrade Pleasant Road (C-1a)	WHP Mgr/City Staff	
*	Maintain isolation distances and Implement IWMZ strategies (D-1b through D-1d)	WHP Mgr	
*	Explore options concerning the close proximity of the Pleasant Lake lift station (E-1a)	WHP Mgr/City Staff	
*	Report to City Council on Implementation progress / funding, then annual report to MDH (H-1a & 1b)	WHP Mgr	
2015	Upload the WHP Plans 1 & 2 to the City website (A-1f)	City Staff	
	Contact Stearns County ESD and request that all active feedlots within the DWSMA are inspected (B-2b)	City Staff	
	Explore methods to better define the boundary of high sensitivity in DWSMA 2 (F-1a)	WHP Mgr/City/MDH	
	Request that the City Council review present Landuse & Zoning Ordinances (G-1a)	WHP Mgr/City Staff	
*	Continue working with CMWEA to encourage other educational opportunities (A-1d)	WHP Mgr/City Staff	
*	Participate in annual Rocori 4 <sup>th</sup> Grade Water Festival (A-1e)	WHP Mgr/ City Staff	
*	Continue working with SRWD on implementing the Mill Creek TMDL initiatives (B-3d)	WHP Mgr/ City Staff	
*	Continue attempting to locate private storage tanks or pits within DWSMA's (B-4a)	WHP Mgr/City Staff	
*	Send fact sheets to any new business that may have a Class V well (B-6a)	City Staff	
*	Explore available options to upgrade Pleasant Road (C-1a)	WHP Mgr/City Staff	
*	Maintain isolation distances and Implement IWMZ strategies (D-1b through D-1d)	WHP Mgr	
*	Explore options concerning the close proximity of the Pleasant Lake lift station (E-1a)	WHP Mgr/City Staff	
*	Report to City Council on Implementation progress / funding, then annual report to MDH (H-1a & 1b)	WHP Mgr	
2016	The PWS will re-evaluate their water-use patterns for second five-year interval. Chp 2: Impact of Changes	WHP Mgr/City Staff	
	Check for new information and update (A-1a)	City Staff	
	Construct an article to be published in the Rockville Newsletter explaining the WHP efforts (A-1b)	City Staff	
	Cooperate with MDH to conduct a pumping test of either City Well 4 or 5 (F-1c)	WHP Mgr/City Staff	
*	Continue working with CMWEA to encourage other educational opportunities (A-1d)	WHP Mgr/City Staff	
*	Participate in annual Rocori 4 <sup>th</sup> Grade Water Festival (A-1e)	WHP Mgr/ City Staff	
*	Continue working with SRWD on implementing the Mill Creek TMDL initiatives (B-3d)	WHP Mgr/ City Staff	
*	Continue attempting to locate private storage tanks or pits within DWSMA's (B-4a)	WHP Mgr/City Staff	
*	Send fact sheets to any new business that may have a Class V well (B-6a)	City Staff	
*	Explore available options to upgrade Pleasant Road (C-1a)	WHP Mgr/City Staff	
*	Maintain isolation distances and Implement IWMZ strategies (D-1b through D-1d)	WHP Mgr	
*	Explore options concerning the close proximity of the Pleasant Lake lift station (E-1a)	WHP Mgr/City Staff	
*	Report to City Council on Implementation progress / funding, then annual report to MDH (H-1a & 1b)	WHP Mgr	
2017	Cooperate with Stearns Co. SWCD and MRWA in providing BMP's to local ag landowners (B-2a)	WHP Mgr/City Staff	
	Contact MDH and arrange for updating IWMZ Forms (D-1a)	City Staff	

	July: 2.5 yr self assessment of implementation of WHPP, document put in file (H-1c)	City Staff	
*	Continue working with CMWEA to encourage other educational opportunities (A-1d)	WHP Mgr/City Staff	
*	Participate in annual Rocori 4 <sup>th</sup> Grade Water Festival (A-1e)	WHP Mgr/ City Staff	
*	Continue working with SRWD on implementing the Mill Creek TMDL initiatives (B-3d)	WHP Mgr/ City Staff	
*	Continue attempting to locate private storage tanks or pits within DWSMA's (B-4a)	WHP Mgr/City Staff	
*	Send fact sheets to any new business that may have a Class V well (B-6a)	City Staff	
*	Explore available options to upgrade Pleasant Road (C-1a)	WHP Mgr/City Staff	
*	Maintain isolation distances and Implement IWMZ strategies (D-1b through D-1d)	WHP Mgr	
*	Explore options concerning the close proximity of the Pleasant Lake lift station (E-1a)	WHP Mgr/City Staff	
*	Report to City Council on Implementation progress / funding, then annual report to MDH (H-1a & 1b)	WHP Mgr	
2018	Seek a meeting with local responders, local cities, MPCA and MnDOT to open a dialogue for Hwy 23 (C-1b)	WHP Mgr/City Staff	
	Confer with MDH and collect water sample from designated well(s) for analyses for tritium (F-1e)	WHP Mgr/MDH	
*	Continue working with CMWEA to encourage other educational opportunities (A-1d)	WHP Mgr/City Staff	
*	Participate in annual Rocori 4 <sup>th</sup> Grade Water Festival (A-1e)	WHP Mgr/ City Staff	
*	Continue working with SRWD on implementing the Mill Creek TMDL initiatives (B-3d)	WHP Mgr/ City Staff	
*	Continue attempting to locate private storage tanks or pits within DWSMA's (B-4a)	WHP Mgr/City Staff	
*	Send fact sheets to any new business that may have a Class V well (B-6a)	City Staff	
*	Explore available options to upgrade Pleasant Road (C-1a)	WHP Mgr/City Staff	
*	Maintain isolation distances and Implement IWMZ strategies (D-1b through D-1d)	WHP Mgr	
*	Explore options concerning the close proximity of the Pleasant Lake lift station (E-1a)	WHP Mgr/City Staff	
*	Report to City Council on Implementation progress / funding, then annual report to MDH (H-1a & 1b)	WHP Mgr	
2019	Check for new information and update (A-1a)	City Staff	
	Summarize any actions taken in: B-3d, B-4a, B-6a, C-1a, E-1a, E-2a	WHP Mgr/ City Staff	
	December: 2.5 yr self assessment of implementation of WHPP, document put in file (H-1c)	City Staff	
*	Continue working with CMWEA to encourage other educational opportunities (A-1d)	WHP Mgr/City Staff	
*	Participate in annual Rocori 4 <sup>th</sup> Grade Water Festival (A-1e)		
*	Continue working with SRWD on implementing the Mill Creek TMDL initiatives (B-3d)	WHP Mgr/ City Staff	
*	Continue attempting to locate private storage tanks or pits within DWSMA's (B-4a)	WHP Mgr/City Staff	
*	Send fact sheets to any new business that may have a Class V well (B-6a)	City Staff	
*	Explore available options to upgrade Pleasant Road (C-1a)	WHP Mgr/City Staff	
*	Maintain isolation distances and Implement IWMZ strategies (D-1b through D-1d)	WHP Mgr	
*	Explore options concerning the close proximity of the Pleasant Lake lift station (E-1a)	WHP Mgr/City Staff	
*	Report to City Council on Implementation progress / funding, then annual report to MDH (H-1a & 1b)	WHP Mgr	
2020	Construct an article to be published in the Rockville Newsletter explaining the WHP efforts (A-1b)	City Staff	
	Cooperate with Stearns Co. SWCD and MRWA in providing BMP's to local ag landowners (B-2a)	WHP Mgr/City Staff	
	Begin process of updating Plan	City Staff	