



City of Rosemount

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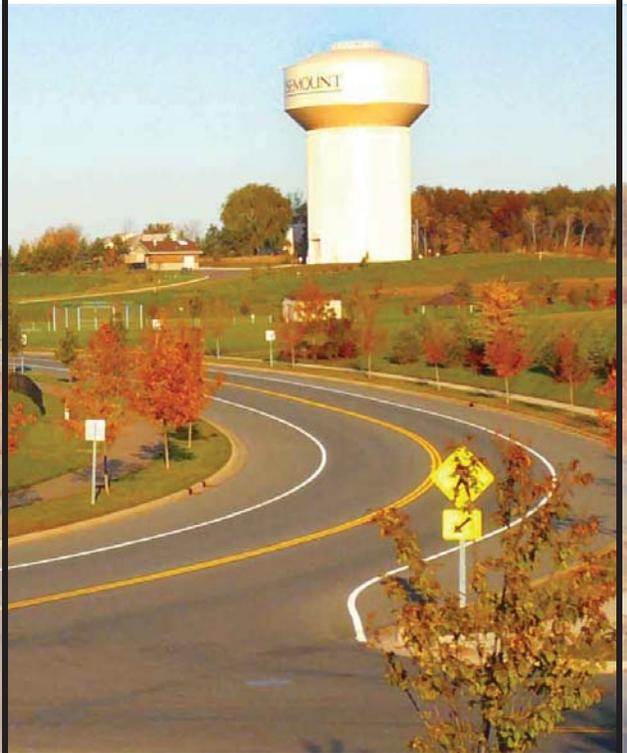
December 2012

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WELLHEAD Protection Plan Amendment - Part 2

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WSB Project Number: 01582-060



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Wellhead Protection Plan

Part 2

City of Rosemount, Minnesota

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PUBLIC WATER SUPPLY PROFILE

PUBLIC WATER SUPPLY

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GENERAL INFORMATION

Unique Well Number(s): 457167, 474335, 112212, 509060, 554248, 706804, 722623, 753663
Size of Population Served: 22,239
County: Dakota

PUBLIC WATER SUPPLY WELLS

Local Well Name	Unique Number	Aquifer	Casing Depth (ft)	Well Depth (ft)	Date Constructed
Well No. R 1	457167	Jordan	345	400	03/18/1989
Well No. R 2	474335	Jordan	345	400	01/09/1990
Well No. 7	112212	Jordan	400	490	04/13/1976
Well No. 8	509060	Jordan	389	498	01/01/1990
Well No. 9	554248	Jordan	374	481	11/22/1996
Well No. 12	706804	Jordan	395	475	12/22/2004
Well No. 14	722623	Jordan	413	485	12/29/2005
Well No. 15	753663	Jordan	390	487	05/16/2008

DOCUMENTATION LIST

<u>Step</u>	<u>Date Performed</u>
Part I Approval Notice Received from MDH	March 18, 2010
Scoping 2 Meeting Held (4720.5349, subp. 1)	January 24, 2011
Scoping Decision Notice Received (4720.5340, subp. 2)	February 15, 2011
Remaining Portion of Plan Submitted to Local Units of Government (LGUs) (4720.5350, subp. 1 & 2)	October, 2012
Review Considered (4720.5350, subp. 3)	October – December, 2012
Public Hearing Conducted (4720.5350, subp. 4)	December 2012
Remaining Portion WHP Plan Submitted (4720.5360, subp. 1)	December 2012
Approved Review Notice Received	

EXECUTIVE SUMMARY

The Wellhead Protection Plan (the Plan) for the City of Rosemount (City) addresses the eight municipal water supply wells used by the City (Wells No. 7, 8, 9, 12, 14, 15, RR-1, and RR-2) and the associated source water aquifer (the Jordan Sandstone – the aquifer from which the municipal wells pump water).

Part 2 of the Plan was completed in October of 2003 and approved by the Minnesota Department. The Wellhead Protection Plan (Part 1 and Part 2) presented the delineation of the Wellhead Protection Areas (WHPA) and the drinking water supply management area (DWSMA) and the vulnerability assessments for the system's wells and aquifers within the DWSMA. The boundaries of the WHPA/DWSMA as shown in the 2003 Part 2 Plan have since expanded and are shown in **Figure 1, Appendix B**. Portions of the WHPA/DWSMA extend into a portion of Empire Township, the City of Lakeville, and the City of Apple Valley. Water supply wells covered by this delineation and this Part 2 Plan Update are listed on **page 5 and in Chapter 1**.

The *vulnerability assessment* for the aquifers within the DWSMA was performed using available information and indicates that the vulnerability of the aquifers used by the system varies from high to low. The results of the aquifer vulnerability assessment determine *what types of potential contamination sources* must be managed within the DWSMA:

- Low vulnerability areas – wells
- Moderate vulnerability areas – wells and tanks
- High vulnerability areas – all land uses and potential contaminant sources

This document updates those portions documented in Part 2 and includes the following information:

- A review of data elements identified by the Minnesota Department of Health as applicable to the DWSMA.
- Results of an inventory of potential contaminant sources within the DWSMA.
- Review of changes, issues, problems, and opportunities related to the public water supply and the identified potential contaminant sources.
- A discussion of potential contaminant source management strategies and the goals, objectives, and action plans associated with these management strategies.
- A review of the wellhead and source water protection evaluation program and Rosemount's alternative water supply contingency strategy.

The goals and objectives of this Plan focus on managing potential contaminant sources within the DWSMA, reducing the potential contaminant pathways to the source water aquifer that may be provided by private wells, educating property owners and water supply users, and working with Empire Township, the City of Lakeville, and the City of Apple Valley to ensure proper management of the portion of the DWSMA in their respective community.

The City of Rosemount's WHP team has identified the following goals for implementation of this Plan:

Goal 1: The City will work to maintain or improve the current level of water quality so that the municipal water supply will continue to meet or exceed all applicable state and federal water quality standards.

Goal 2: The City will work to continue to supply sufficient water quantity for system users and emergency needs.

Goal 3: The City will provide and promote activities that protect the source water aquifer that provides water to the municipal system. This will include increased public awareness of the Wellhead and Source Water Protection Program and groundwater-related issues, and management of the identified potential contaminant sources and conveyance mechanisms within the DWSMA.

Goal 4: The City will continue to collect data to support future wellhead and source water protection efforts.

Implementation of these goals will be achieved through direct management efforts to the following areas to prevent future contamination of the aquifer and increase awareness of groundwater protection:

- A. Well Management**
- B. Public Education**
- C. Storage Tank Management**
- D. Septic Systems (ISTS)**
- E. Stormwater Management**
- F. Hazardous Waste Management**
- G. Data Collection**
- H. Water Conservation**
- I. Planning and Zoning**
- J. Implementation**
- K. Evaluation**

The success of the Wellhead Protection Plan must be evaluated in order to determine whether or not the Plan is accomplishing what the City of Rosemount intended to do. Monitoring and evaluation of the Wellhead Protection Plan and associated activities will be conducted every two and a half years that the Plan is in effect.

CHAPTER ONE

DATA ELEMENTS AND ASSESSMENT (4720.5200)

Rosemount currently uses the following wells to provide the City's drinking water:

- Well 7 – unique number 112212
- Well 8 – unique number 509060
- Well 9 – unique number 554248
- Well 12 – unique number 706804
- Well 14 – unique number 722623
- Well 15 – unique number 753663
- Well RR-1 – unique number 457167
- Well RR-2 – unique number 474335

The DWSMA delineated in the Wellhead Protection Plan area delineation study extend into a portion of Empire Township, the City of Lakeville and the City of Apple Valley. The DWSMA is found in Township 114, Range 19, Sections 4, 5, 6, 7, 8, Township 115, Range 19, Sections 16, 20, 21, 22, 26, 27, 28, 29, 30, 31, 32, 33, 34, Township 115, Range 20, Sections 25, 36, and Township 114, Range 20, Section 1.

I. REQUIRED DATA ELEMENTS

A. PHYSICAL ENVIRONMENT DATA ELEMENTS

In accordance with Minnesota Rules Chapter 4720.5200, the data elements and their assessments required to be included in the Wellhead Protection Plan for the City of Rosemount are presented in this Section. Data elements discussed in this Section include precipitation, geology and hydrogeology, soils, and water resources.

1. PRECIPITATION

Rosemount's municipal wells and the source water aquifer within the DWSMA are classified as vulnerable to contamination, and as such precipitation must be evaluated to determine if it could potentially apply to the Plan.

As shown on **Figure 14, Appendix B**, there are three National Weather Service (NWS) precipitation gauging stations in Dakota County. These stations are located in Farmington, Hastings, and at the University of Minnesota Rosemount Agricultural Experiment Station. In addition, there are a number of other precipitation gauging stations in Dakota County whose locations are not shown on the map. Locations of the NWS stations and the additional gauging stations are identified by township, range, and section in **Table 2, Appendix A**.

As outlined in the Part 1 Plan, and reiterated in the 2003 Part 2 Plan, the Jordan Sandstone aquifer is under leaky-confined hydrogeologic conditions in and around Rosemount and considered vulnerable because of the presence of tritium in some wells.

This combined with the vulnerability of the DWSMA ranging from low to high, it is important to consider precipitation in relation to management of land use in the DWSMA because it can act as a transportation mechanism by infiltration or runoff. A contaminant may be displaced through the soil medium in the direction of the source water aquifer, through the municipal storm sewer system, or across impermeable surface features during rain events.

2. GEOLOGY

The regional groundwater flow system is composed of three aquifers: the glacial drift/St. Peter Sandstone, the Prairie du Chien Group, and the Jordan Sandstone. The City of Rosemount municipal wells are all completed in the Jordan Sandstone aquifer. The surficial geologic unit in the vicinity of the DWSMA consists of unconsolidated glacial drift deposits including sand, gravel, and clay. Based on the well logs for the Rosemount municipal wells, these unconsolidated deposits are approximately 90 to 180 feet thick within the DWSMA.

The uppermost bedrock unit within the DWSMA varies with location and includes the Platteville Limestone, Glenwood Shale, St. Peter Sandstone, and the Prairie du Chien, as shown in Figure 2, Appendix B. Well logs for the Rosemount municipal wells indicate that, where present, the St. Peter Sandstone is approximately 30 to 40 feet thick. The Prairie du Chien dolomite in the area of the DWSMA is approximately 200 feet thick. As a result, the top of the Jordan Sandstone is more than 320 feet below the ground surface within the DWSMA.

The water table in the Rosemount area is generally present in the drift deposits. Where it is not in the glacial drift, the water table is in the St. Peter Sandstone. As noted above, the groundwater flow system is divided into three aquifers. Hydraulic interaction with the deeper regional aquifers beneath the Jordan Sandstone is considered negligible. Between each aquifer unit in the study area is a leaky aquitard. Between the glacial drift/St. Peter Sandstone aquifer and the underlying Prairie du Chien Group, the aquitard consists of the basal portion of the St. Peter Sandstone (a shaley unit approximately 5 to 15 feet thick) and glacial till. Between the Prairie du Chien Group and the Jordan Sandstone, a resisting aquitard layer is present that combines the leakage resistance effects of vertical anisotropy of hydraulic conductivity and lower hydraulic conductivity conditions in the basal portion of the Oneota Formation (the basal member of the Prairie du Chien Group). As a result, the Oneota Formation separates the Prairie du Chien Group aquifer from the underlying Jordan Sandstone aquifer. This interpretation is supported by Part 1 analysis that are consistent with the Jordan Sandstone being under leaky-confined conditions. While it addresses the Prairie du Chien Group and the Jordan Sandstone as a single aquifer, the Dakota County Geologic Atlas also indicates that the Prairie du Chien – Jordan aquifer is under confined conditions under most of Rosemount, including in the vicinity of the DWSMA.

Infiltrating precipitation and leakage from lakes and rivers, which tend to be perched above the water table, recharge the glacial drift/St. Peter Sandstone aquifer in Dakota County. The primary source of water for the bedrock aquifers (i.e. the Prairie du Chien and the Jordan Sandstone) is leakage from adjoining aquifer units. The Dakota County, groundwater discharge is to the major streams; the Minnesota River, the Mississippi River, the Vermillion

River, and the Cannon River. Groundwater flow in the vicinity of the Rosemount DWSMA is generally northeasterly in all aquifer units.

3. SOIL CONDITIONS

Surficial soil types within the DWSMA are shown on **Figure 3, Appendix B**. Since the Rosemount municipal wells and source water aquifer within the DWSMA are classified as vulnerable, surficial soil characteristics must be evaluated to determine if they could potentially apply to the plan. While there are known erodible lands within the DWSMA (**Figure 5, Appendix B**), they are not currently causing sedimentation problems.

Based on the aquifer vulnerability assessment results, issues related to surficial soil characteristics or the surficial soil types may have an effect on the management strategies developed for the DWSMA. Surficial geologic materials in the City of Rosemount consist of sand, gravel, and porous soils. (**Figure 4, Appendix B**). City staff is well aware that all types of land development and land use activity may have an impact on the source water aquifer due to surface water infiltration through the permeable soil types in the City of Rosemount DWSMA.

4. WATER RESOURCES

Surface water resources must be evaluated to determine if they could potentially apply to the Plan, since the Rosemount municipal wells and source water aquifer within the DWSMA are classified as “vulnerable”.

Based on the aquifer vulnerability assessment results, issues related to surface water resources may impact the quality of the groundwater reaching the City’s wells. Due to the geologic conditions in and around the City’s DWSMA and the vulnerability of the aquifer to contamination, surface water management is critical for maintaining a water supply of high quality. The quality of the source water is dependent on the quality of its recharge. Recharge sources/mechanisms are noted above. Surface water management will be conducted so as to reduce the potential negative effects that surface waters may have on the source water aquifer. Management strategies in this Plan will address current and future surface water quality in the area so that aquifer recharge and water availability does not become an issue for the City.

B. LAND USE DATA ELEMENTS

Current and historic land use in the vicinity of the DWSMA is discussed in this section. Parcel information for the City of Rosemount, Empire Township, City of Apple Valley, and City of Lakeville were used to delineate the DWSMA (see **Appendix B**).

1. LAND USES

a. Current Land Use

It is important to understand land use in order to determine key areas for concern in managing a wellhead protection area. For example, knowledge about the location of future development or areas of redevelopment within the DWSMA may reveal a

need to closely manage the activity within more sensitive areas. Additionally, any land uses that currently pose a potential threat to the City's water supply would need to be highlighted to increase awareness of any concerns. Since the Rosemount municipal wells and the source water aquifer within the DWSMA are classified as vulnerable, current land use must be evaluated to determine if it could potentially apply to the Plan.

Figure 6, Appendix B shows the DWSMA superimposed over the existing land use maps for those communities within the DWSMA from their Comprehensive Plans. Land uses found within the DWSMA include agricultural, single family residential, multi-family residential, commercial, office, industrial, institutional, parks/recreational and open space, and gravel mining. Information for this section was taken from the City of Rosemount's Comprehensive Plan (2009), Empire Township's Comprehensive Plan (2009), City of Apple Valley's Comprehensive Guide Plan (2010), and City of Lakeville's Comprehensive Plan (2008).

Potential threats to the water supply were determined by analyzing data relevant to the public water supply wells, the quality of water being drawn into the wells, or land and groundwater uses around the wells. MDH provided a list of potential contaminant sources extracted from state and federal databases on above ground and underground storage tanks, leaking underground storage tanks, state permanent list of priorities sites, voluntary investigative cleanup sites, agricultural chemical storage sites, hazardous waste generators, etc. Listed sites within the DWSMAs were identified and mapped (see **Figure 9, Appendix B**). Results of this inventory indicate the presence of several potential contaminant sources within the DWSMA. These potential sources include various commercial, medical, dental, mineral extraction, disposal, institutional, industrial, and storage tank sites. A summary of the results is presented in **Table 1, Appendix A**.

Possible contaminant sources were identified and evaluated within the DWSMA. It is important to realize that the WHPA does cover multiple municipalities, so cooperation between Rosemount and the neighboring Township and Cities is essential. The following potential contaminant sources were found to be within the DWSMA:

- **Public and Private Wells.** **Figure 10, Appendix B** shows a map that includes all public and private wells that were located. 46 wells, 12 of them for public supply, are located within the DWSMA. There may be more wells that were not located. All of these wells are either active or sealed, with some exceptions. The exceptions include two "Scientific Investigation" use wells, and four public wells that are considered "unknown" or "abandoned" but do not have sealing records. There are no known shallow disposal wells in the DWSMA
- **ISTS.** Shallow groundwater is highly susceptible to pollution from septic tanks. There are 22 parcels in the DWSMA with septic systems, as determined by the absence of sanitary sewer connections for parcels with structures. The septic systems are shown in **Figure 12, Appendix B**.
- **Spill Sites.** There are multiple areas of known contamination within or near the DWSMA – the Gopher Ordinance / UMore Park sites and the Flint Hills refinery

to the northeast of the DWSMA are the two largest. These and others are potential contaminant sites and are currently being monitored by the MPCA.

- **Storage Tanks.** Documented storage tanks within the DWSMA include multiple fuel stations, both automotive and pipeline related, and farms. The rest of the documented storage tanks in the DWSMA are for heating oil and industrial chemicals. These are all shown on **Figure 9, Appendix B.**
- **Other.** There are numerous sites within the DWSMA that are included in the PCSI, including dumps and leaking underground tanks that have been removed, Hazardous Waste Generators such as dental offices, x-ray machines, film development chemicals, solvent tanks, dry cleaners, paint storage and application, a funeral home, and a decommissioned wastewater treatment facility that should all be monitored as potential contaminant sources.

b. Historical Land Use

The historical land use analysis conducted for the 2003 Well Head Protection Plan was updated to determine if historical land use could potentially apply to the Plan. A review of available information on historic land use in the City of Rosemount, Empire Township, City of Apple Valley, and the City of Lakeville was conducted. Research was conducted based on aerial photography, historic land use maps and utility as-built drawings. Field investigations were performed in designated areas where no information was available.

Land activity was reviewed for potential influence on water quality in the DWSMA. Similar to the 2003 analysis, the information available did not indicate any land use or land activity that would potentially create a significant impact within the DWSMA. Agriculture was determined to be the primary land use/land activity in the area. There have been no properties within the DWSMA that have presented a threat to the source water aquifer within the DWSMA based on a previous land use activity.

Empire Township has indicated that, prior to the start of sand and gravel mining in the portions of the Township within the DWSMA, the land use in this area had been agricultural and no other prior land uses are known.

2. PUBLIC UTILITIES

Since portions of Rosemount's DWSMA are classified as vulnerable, public utilities were evaluated to determine their potential influence and impact on Rosemount's drinking water supply. Public utilities located within the DWSMA include water, sanitary sewer and stormwater piping, as shown in **Figures 10, 11, and 12, Appendix B.** The public utilities in the DWSMA should not create a significant risk to groundwater quality because of their relatively shallow depth or encasement in pipe, since Part 1 of the City's WHPP did not show a hydraulic connection between surface waters and the City's aquifers.

Empire Township is largely utility-free, with most properties having their own well and individual sanitary treatment system (septic system).

C. WATER QUANTITY DATA ELEMENTS

Water levels in lakes and streams can have an impact on an aquifer that is unconfined if there is a connection between the surface water system and the aquifer system. Part 1 of the Wellhead Protection Plan did not identify any hydraulic connection between surface water and the aquifer systems in Rosemount's DWSMA. However, high capacity wells in the same aquifer can influence the hydraulics of the aquifer if the pumping rate and volume is large enough.

1. SURFACE WATER QUANTITY

Surface water bodies did not influence the delineation of the wellhead protection areas, but were still included in the model. A conjunctive delineation was not required to be included in the model and was not performed.

2. GROUND WATER QUANTITY

Fixed radius capture zones were also calculated for five nearby high capacity wells (see Part 1) in addition to the eight municipal wells. For these additional high capacity wells the average pumping rates from 2003-2007 were used. Projections of future pumping rates were determined only for the Rosemount municipal wells. The capture zones of these wells did not intersect the capture zones of the Rosemount municipal wells and were, therefore, not considered in the analysis.

D. WATER QUALITY DATA ELEMENTS

Water quality is an indication of aquifer vulnerability.

1. SURFACE WATER QUALITY

Since surface water in the vicinity of the City is not in direct hydraulic connection with the City's aquifers, surface water quality was not reviewed.

2. GROUND WATER QUALITY

Groundwater bacteriological and chemical data have been reviewed as part of Part 1 of the Wellhead Protection Plan.

II. ASSESSMENT OF DATA ELEMENTS

A. USE OF MUNICIPAL WELLS

The City of Rosemount currently operates (8) active water supply wells (Wells No. 7, 8, 9, 12, 14, 15, RR1 and RR2), located in and around the City (see **Figure 1, Appendix B**). Additional information about Rosemount's water supply system in general is presented in the *City's 2030 Comprehensive Guide Plan- Water Supply Plan*. In addition, well construction details, well logs, and past and projected pumping rates are included in the Wellhead Protection Plan Part 1 document.

B. WELLHEAD PROTECTION AREA DELINEATION CRITERIA

See the Part 1 Plan for documentation regarding how the following delineation criteria were applied to determining the boundaries of the WHPA:

1. **Time of Travel** – 10 years
2. **Aquifer Transmissivity** – geologic information, MPCA Metro Model, Metropolitan Council's Metromodel 2.0
3. **Daily Volume of Water Pumped** – historical volumes and projected future volumes, whichever was greater.
4. **Hydrologic Boundaries** - Major groundwater flow boundaries in the area consist of the Minnesota River to the northwest, the Mississippi River to the northeast, and the Vermillion River to the south. For groundwater flow modeling, the boundaries consisted of the Minnesota and Mississippi Rivers, a constant head boundary south of the Vermillion River, and a specified flux boundary to the west.
5. **Groundwater Flow Field** – MODFLOW

C. QUALITY AND QUANTITY OF WATER SUPPLYING THE PUBLIC WATER SUPPLY WELL

Rosemount continue to have excellent drinking water quality that is free of pathogens and disease causing organisms and meets or exceeds state and federal water quality requirements. Water samples have been regularly obtained from the City wells and tested for regulated contaminants. As mentioned in Part 1, data summaries were obtained from the Minnesota Department of Health, and it was determined based on this data that tritium was detected in City Wells No. R1, 7, 8, and 9. Tritium is not a health hazard, but is an indicator of vertical migration travel time and aquifer vulnerability. The presence of tritium indicates that some portion of the water entered the aquifer(s) after 1953. Levels of nitrate have been below detection/ accuracy limit and have not been identified as a concern by MDH. No volatile organic compounds (VOCs) were detected.

Pumping records submitted to the Minnesota Department of Natural Resources as identified in Part 1 were used to identify the extraction rates of the City wells. These data, along with the past and projected pumping rates, are presented in Part 1.

D. LAND AND GROUNDWATER USES IN THE DRINKING WATER SUPPLY MANAGEMENT AREA (DWSMA)

The DWSMA associated with Rosemount municipal wells has been determined to be vulnerable, ranging from low to high vulnerability. Land uses within the DWSMA could affect source water protection efforts or the management of the DWSMA. A summary of potential contaminant sources identified in the DWSMA was provided in **Table 1, Appendix A**. Proactive management of existing wells, unsealed or used wells are of immediate concern within the vulnerable portions of the DWSMA. Management strategies must also be developed for hazardous waste generators, public utilities infrastructure and non-point sources of contamination in the highly vulnerable portions of the DWSMA.

Specific non-point source land use acreage was not determined for this report, but the land use and zoning maps (see **Figure 5 and 6, Appendix B**) provide a tool for understanding the scope of land uses in the DWSMA. Furthermore, the inventory was made as complete as practicable at

the time of the development of this Plan. Additional land use discussion is included in Part Three. Plan goals, objectives, and actions are included in Part Four and Part Five.

Management strategies are discussed in Part Five, which focus on activities that have the most potential to impact the aquifer system the City of Rosemount is using for its drinking water supply. Despite the vulnerable designation of a majority of the DWSMA, non-point sources of contamination are of less immediate concern than are larger potential point sources, particularly those in high vulnerability areas.

Privately owned wells, particularly those that are completed in or penetrate the Jordan aquifer, will continue to be considered when developing the management strategies for the Rosemount DWSMA. Unmaintained, damaged, poorly constructed, or unused/abandoned wells could provide a direct route for contaminants to enter the Jordan aquifer.

Potential contaminant sources within the DWSMA identified through the PCSI include storage tank sites, chemical storage sites, hazardous waste generators, dumps, residential land uses, transportation corridors, and gravel pits. These land uses/facilities will be considered when developing the management strategies for the Rosemount DWSMA.

As previously noted, there are some non-municipal wells that extend into the Jordan aquifer within the DWSMA. These wells could provide pathways for contaminants to reach the Jordan aquifer. Such wells will be addressed by the management strategies developed for the DWSMA.

CHAPTER TWO

IMPACT OF CHANGES ON PUBLIC WATER SUPPLY WELLS (4720.5220)

In accordance with Minnesota Rules 4720.5220 a wellhead protection plan must identify and describe expected changes that may occur during the next ten years to:

1. The physical environment
2. Land use
3. Surface water
4. Groundwater

I. POTENTIAL CHANGES IDENTIFIED

A. PHYSICAL ENVIRONMENT

Currently, changes in the physical environment, the municipal wells or corresponding DWSMAs are anticipated in the next 10 years or the life of this Plan. Gravel pits currently in the DWSMA may expand or new gravel mining operations may become active on properties within the DWSMA in the next 10 years.

In May 2012 the City approved an Ordinance to permit large scale mineral extraction as an interim use in the AG; Agricultural zoning district. In June 2012 an application was submitted for a large scale mining extraction permit. The proposed mining activity extends into the southeast corner of the DWSMA in low, moderate and high vulnerable areas.

The City of Rosemount will work with the Township Board of Supervisors to manage the portion of the DWSMA within the Township. The extraction efforts on behalf of the mining operation in Empire Township, within the DWSMA, may influence the surface to water table aquifer interaction over the course of the operation. As described in Chapter 1, the water table occurs in geologic units that are stratigraphically above the source water aquifer. However, it is potentially possible that any contaminants that would reach the water table as a result of the mining operation could eventually migrate to the source water aquifer.

Changes to the physical environment resulting from gravel mining operations are unlikely to affect the aquifer vulnerability significantly since the vulnerability is already classified as “high” because of the presence of tritium in the City wells. However, where processing of concrete and asphalt will occur, the DWSMA is classified as “low” to “moderate”. Therefore, changes to the physical environment will likely not affect the management strategies for the Rosemount DWSMA presented in this Plan unless research and/or monitoring reveals that existing City wells are impacted by planned mining operations.

B. LAND USE

Many of the properties within the DWSMA are developed. A land use map for the year 2008 and a future land use map for the year 2030 are shown on **Figures 6, Appendix B and Figure 11, Appendix B**, respectively. Projected land uses are used to be consistent with Empire Township, the City of Apple Valley, and the City of Lakeville’s current growth planning. Comparison of the

year 2008 and the future land use for the year 2030 indicates that, in general, undeveloped properties within the DWSMA will be developed. Future uses of these properties will include residential, commercial, public/institutional, park and open space and potential gravel mining areas.

Future land use proposed for the year 2030 includes agricultural, residential (low, medium, and high), office, commercial, light industrial, institutional, parks and open spaces, and potential gravel mining. All of these future land uses are currently present within the DWSMA, thus no new land uses not currently present within the DWSMA are anticipated during the next 10 years of the life of this Plan.

C. SURFACE WATER

Part 1 of the Wellhead Protection Plan determined that surface water did not significantly contribute to Rosemount's water supply. However, surface water that infiltrates into the groundwater system has the potential to enter the water supply if the strata isolating aquifers from the water table leak (which may be the case where fractured carbonate rock is first bedrock). Recent changes in stormwater management have placed an emphasis in local infiltration of stormwater in order to improve surface water quality. It is yet unclear as to how local stormwater infiltration will affect the quality and quantity of the recharge water. By infiltrating stormwater on site it may improve groundwater quantity, since less water will be conveyed out of the recharge areas. However, contaminants may also be infiltrated along with the water. The long term effects of infiltration should be monitored.

Proposed aggregate mining will create a mine pit lake due to mining below the water table and stormwater management and reclamation plans in and around the DWSMA will include the construction of permanent stormwater ponds. These activities may potentially impact groundwater in the Jordan if the water table and the Prairie du Chien aquifers are more hydraulically connected to their source aquifer than currently thought. Rosemount is taking an active approach to mitigating risks that mining and reclamation may impose to the water supply. This includes requirements such as approval of a groundwater monitoring plan and spill and emergency response plans specific to mining operations.

D. GROUNDWATER

The metropolitan Council and the Minnesota DNR have determined that water level in the Metro area groundwater systems have been gradually falling over the last few decades. Falling water levels in the aquifer used to source Rosemount's water supply will result in higher energy use or lower pumping rates over time.

The MN DNR is implementing groundwater monitoring conditions to appropriations permits in order to monitor this change more closely. Rosemount is aware that falling regional groundwater levels cast some doubt on the very long term (century scale) sustainability of the source aquifers even though there are potential recharge areas within Rosemount's DWSMA. Rosemount is supporting the monitoring program through the ongoing water level monitoring in the two observation wells near Well 14 and the one at UMore Park. One more observation well is planned at the time of this report.

As discussed in the previous section, proposed aggregate mining may potentially impact groundwater in the Jordan and the City is taking an active approach to mitigating risks that mining and reclamation may impose to the water supply. This includes approval of a groundwater monitoring plan specific to mining operations.

II. IMPACT OF CHANGES

A. WATER USE

Rosemount's Comprehensive Plan identifies population growth of approximately 42,000 by the year 2030. As demand increases, new wells will be constructed in the Jordan Sandstone formation. The City has planned for two wellfields; one in the south west area of Wells 7, 8, 9, and 12; and the other in the northeast area of Wells 14 and 15. The next 2 wells are anticipated to be in the northeast wellfield. However, growth in the UMore area may necessitate the construction of a future well in the UMore area.

To reduce the need for additional wells, the City has a policy of encouraging water conservation through education of its residents and an inclining block rate structure.

B. INFLUENCE OF EXISTING WATER AND LAND GOVERNMENT PROGRAMS AND REGULATIONS

There are a number of existing rules and regulations at the Federal, State, County, and Local levels requiring regulations related to managing wells, storage tanks, and other land use issues within the system's DWSMA.

Federal and State Regulations

All tank operators and owners must comply with both federal and state regulations for underground storage tanks. At the federal level, tank operators and owners for underground storage tanks (USTs) must comply with 40 CFR Part 280-282. At the state level, operators and owners must comply with Minnesota Rules, Chapter 7150. Enforcement of state and federal regulations is the responsibility of the Minnesota Pollution Control Agency (MPCA). The existing federal and state regulations provide adequate controls to manage underground storage tanks within the DWSMA.

Above ground storage tanks (ASTs) which store liquid substances that may pollute the waters of the state are regulated by Minnesota Rules, Chapter 7151, if the site capacity is less than one million gallons. Above ground storage tank regulations are also enforced by the MPCA. Existing regulations provide adequate controls to manage storage tanks within the DWSMA. In addition to the MPCA, the state and local fire marshal also regulate tanks.

Dakota County Regulations

Dakota County has land use ordinances in place that can aid in the regulation of possible contamination sites. The County adopted the Dakota County Comprehensive Plan "DC2030" in May of 2009 which outlines the County's role in addressing land and public infrastructure issues within the County. The Comprehensive Plan describes overall objectives and policies

that are designed to guide the County toward the accomplishment of its visions by the year 2030 and has specific information relating to surface water management and sustainable communities including contaminated sites and other green infrastructure. Additionally Dakota County adopted an update to the 1992 Groundwater Plan in 2000 that contains more than 100 initiatives on various aspects of groundwater protection. Primary objectives include information and education, abandoned wells, pesticide issues, industrial issues, aquifer and wellhead protection, and groundwater supply. The updated Plan also includes a groundwater inventory and long-range management goals for groundwater-related issues.

Dakota County collects and maintains data related to surface water and groundwater. This information can be utilized by communities throughout the County to gain a deeper understanding of the groundwater conditions in their jurisdiction. Funding programs for sealing unused water wells are also available through the County, as well as numerous education and outreach opportunities. The County also supports the Dakota Soil and Water Conservation District in its programs to assist County residents in protecting and conserving natural resources.

City of Rosemount Regulations

The City of Rosemount controls water and land use within the City through the enforcement of their Zoning Ordinances and other provisions of the City Code. The land in the DWMSA includes portions of the City of Rosemount and is zoned as shown in **Figure 7A, Appendix B**.

Other official controls available to the City of Rosemount for regulating land use within the DWMSA include performance standards such as shoreland management regulations and wetland standards and health and sanitation codes, including individual sewage treatment system (ISTS) standards. Stormwater standards are also implemented throughout the City and within the DWMSA.

The Wellhead Protection Plan, along with other controls listed above, are anticipated to be adequate in managing land use activities for the purposes of wellhead protection within the portions of the DWMSA in the City of Rosemount. Any deficiencies noted will be addressed and corrected in future revisions to the Wellhead Protection Plan.

Empire Township Regulations

That portion of Empire Township within the DWMSA area is zoned as shown in **Figure 7B, Appendix B**, and generally includes area of agricultural, low density residential, commercial, public/institutional, mining and industrial land uses.

Official controls available to Empire Township for regulating land use within the DWMSA beyond Zoning Ordinances and the Comprehensive Plan include performance standards such as floodplain and shoreland management regulations and wetland conservation standards and health and sanitation codes, including individual sewage treatment systems (ISTS) private well standards. Stormwater management standards are also implemented throughout the Township and within the DWMSA.

Empire Township adopted the 2030 Comprehensive Plan in August 2009. Land use changes in this area will be present, as the area within the DWSMA will be guided for gravel mining activities through the year 2030. Existing controls are anticipated to be adequate, but monitoring of the gravel mining activities will need to be a priority.

City of Apple Valley Regulations

Zoning and building permit ordinances and regulations are the primary means by which the City of Apple Valley controls land use. That portion of the City of Apple Valley within the DWSMA area is zoned as shown in **Figure 7C, Appendix B**.

Other official controls available to the City of Apple Valley for regulating land use within the DWSMA include performance standards such as shoreland management regulations and wetland standards and health and sanitation codes, including individual sewage treatment systems (ISTS) and private well standards. Stormwater standards are also implemented throughout the City and within the DWSMA.

These controls, along with provisions outlined with the City's 2030 Comprehensive Plan, are anticipated to be adequate in managing land use activities for the purposes of wellhead protection within the portions of the DWSMA in the City of Apple Valley. Significant changes are not anticipated in the portion of the DWSMA within the City of Apple Valley within the 10-year period of this Plan, and existing controls are anticipated to be adequate.

City of Lakeville Regulations

The City of Lakeville uses zoning and building permit ordinances to regulate land use. That portion of the City of Lakeville within the DWSMA area is zoned as shown in **Figure 7D, Appendix B**.

Additional official controls available to the City of Lakeville for regulating land use within the DWSMA include performance standards such as shoreland management regulations and wetland standards, as well as health and sanitation codes. Stormwater standards are also implemented throughout the City and within the DWSMA.

The City's 2030 Comprehensive Plan guides that portion of the City of Lakeville in the DWSMA for medium density residential land use, where current land use allows agricultural and gravel mining activities. Monitoring of reclamation and restoration of these areas will be critical as future residential development occurs, however existing controls are anticipated to be adequate.

Vermillion River Watershed Joint Powers Organization Regulations

Dakota and Scott Counties formed the Vermillion River Watershed Joint Powers Organization (VRWJPO) to implement the 2005 Watershed Plan. The Watershed Plan leads the development and implementation of policies, programs, and projects that protect and preserve water resources in the 335-square mile area that drains to the Vermillion River and its tributaries.

The Watershed Plan provides the management goals, policies and objectives that the VRWJPO will use to protect, improve, preserve, and manage water resources in the Watershed, and the need and reasonableness for standards, rules, and ordinances to enforce the objectives of the Plan.

In addition to the Watershed Plan, the VRWJPO adopted a set of Watershed Standards in October 2006 and Watershed Rules in March 2010. The Standards and Rules assist in accomplishing statutory purpose to protect, preserve and manage surface and groundwater systems within the Vermillion River Watershed. Most notable interrelationship is the hydrology of the Vermillion River and the potential changes associated with anticipated urban development in the area.

Although not the local government unit (LGU) for the communities within the DWSMA, standards and rules established by the VRWJPO provide guidance and best management practices by regulating the improvement or alteration of land and waters within the Watershed.

C. ADMINISTRATIVE, TECHNICAL, AND FINANCIAL CONSIDERATIONS

The City of Rosemount will have adequate resources available to regulate the public water supply's source water. Funds to support ongoing wellhead and source water protection efforts will come from the City's water utility fund. Wellhead and source water protection activities will be evaluated on an annual basis, and any changes in the focus of the tasks will also be evaluated to determine if additional funding will be necessary to accommodate the changes.

For this Plan to be effective, the City will need to collaborate with other surrounding and overlapping jurisdictions and agencies to raise public awareness of the issues affecting its public water supply through public education programs. Therefore, a number of the wellhead and source water protection actions in this Plan will include public education.

Increasing water demand resulting from an increasing population will make it necessary for the City to expand its public water supply system in the future. City staff continues to evaluate the water distribution system as the community grows. In addition to constructing additional municipal wells, additional storage reservoirs, water treatment facilities, and water distribution systems will likely be needed as well.

The decommissioning of existing and/or the installation of additional municipal wells in the next 10 years will affect the size and shape of the WHPA and DWSMA for Rosemount's municipal wells. The City intends to amend and update its Wellhead Protection Plan at the time new wells are constructed and put into service.

It is also important for the City of Rosemount to continue to work with the Empire Township, the City of Apple Valley, and the City of Lakeville to manage the portions of the DWSMA that extend into their jurisdictions. In addition, the City of Rosemount intends to work in conjunction with Dakota County and neighboring communities to protect the source water resources as much as possible when it is beneficial and logistically feasible.

CHAPTER THREE

ISSUES, PROBLEMS, AND OPPORTUNITIES (4720.5230)

I. LAND USE ISSUES, PROBLEMS, AND OPPORTUNITIES

A. SOURCE WATER AQUIFER

Part 1 of the WHPP determined that the WHPA and corresponding DWSMA for the source aquifer range from low to high vulnerability to contamination and therefore some locations are more likely to be affected by land use activities. Land use and zoning regulations can protect the quality of the aquifers by discouraging types of construction or activity that may cause contamination. Rosemount and other communities in the DWSMA have land use and zoning ordinances in place that could be revised in the future if needed to address potential contaminant sites. Additionally, Rosemount has a Comprehensive Plan in place that includes policies for managing growth of the City, the allowable land uses, water supplies, and wells. Policies identified in the Comprehensive Plan will help protect the City's source water aquifer. The challenge to Rosemount is the fact that portions of their DWSMA is located in other communities and outside of their control. *Cooperative participation in the management of the local aquifers to help assure sustainable water supplies for all users is a challenge and an opportunity.*

Rosemount will continue to see growth within the DWSMA and therefore may consider additional high capacity wells before 2030. Additional high capacity wells in the City's DWSMA may impact the delineated WHPA's and necessitate the updating of the DWSMA. The City will work with the Wellhead Protection Consultant to amend this Plan as required by the MDH when additional municipal wells are installed. In addition, if private high-capacity wells are installed in the source water aquifer within or near the DWSMA there could be changes to the shape and extent of the WHPA and DWSMA delineated for this Plan. *The ongoing collection of data has been identified as an opportunity to support future wellhead protection efforts.*

B. GROUNDWATER QUALITY

Groundwater pumped from the Jordan Sandstone aquifer by the Rosemount municipal wells is currently free of pathogens and disease-causing organisms. In addition, Rosemount's public water supply currently meets or exceeds state and federal water quality requirements. For aesthetic purposes, the City treats the water, by chemical addition at the wellheads, to prevent precipitation of iron and manganese in the distribution system. The presence of tritium in some of the wells (discussed previously) is not a health risk, but an indication of the vulnerability of the aquifer.

Well water quality sampling will need to continue so that possible contamination can be identified. There are numerous private wells within the DWSMA and will need to continue to be regulated. *Coordination with other local units of government in the DWSMA and MDH and DNR to share and maintain information on wells and potential contaminants will be a challenge and an opportunity.*

Education of landowners, especially those with private wells, individual sewage treatment systems (ISTS), or other contaminant sources such as storage tanks, will be important in the control of contamination affecting the groundwater quality.

C. DRINKING WATER SUPPLY MANAGEMENT AREAS

Land use found within the DWSMA include agricultural, single family residential, multi-family residential, commercial, office, industrial, institutional, parks/recreational and open space, and gravel mining. Potential contaminant sources identified are of concern and need to be monitored.

As previously mentioned, a concern for the City of Rosemount will be that it does not have legal capabilities to regulate activities in areas within its DWSMA that are outside Rosemount's city limits. In addition, Rosemount does not have authority over water appropriations within its DWSMA and relies on the DNR to address issues related to pumping of the aquifer.

Some opportunities identified include:

- *Working with other municipalities in the DWSMA and government entities to share information, and create policies that prevent contamination of aquifers.*
- *Tracking the potential contaminant source and updating the list of potential contaminant sources as new information becomes available.*
- *Landowner education and proper well management.*
- *Routinely monitoring for land use and potential contaminant source changes within the Inner Wellhead Management Zone (IWMZ), 200ft radius around well, in consideration of State Well Code requirements.*
- *Place high priority on new and existing wells identified in the IWMZ and One Year Time of Travel Area for the implementation of best management practices.*

II. ISSUES, PROBLEMS, AND OPPORTUNITIES DISCLOSED AT PUBLIC MEETINGS AND IN WRITTEN COMMENTS

At the beginning of the wellhead protection amendment process, the City of Rosemount sent a notification to other local units of government of its intention to amend their wellhead and source water protection efforts. After approval by the MDH, Rosemount sent copies of the Part 1 report to the local units of government.

The City was not informed of any issues, problems, or opportunities by the local units of government during that time. In 2003, the City of Rosemount adopted Part 2 of the original WHPP.

III. ISSUE, PROBLEMS, AND OPPORTUNITIES RELATED TO THE DATA ELEMENTS

Part 1 and Part 2 of Rosemount's Wellhead Protection Plan have utilized current local and regional information available for compiling and assessing data elements. At a minimum, this Plan will be revised or updated every 10 years as required by the Wellhead Protection Rules and the most recent and accurate data will be utilized at that time. To support on-going wellhead protection efforts, the City will collect data on wells, water quality and land use within

its DWSMA. Due to limited resources to independently collect the full range of data and recreate the necessary databases, the City will continue to mainly rely on databases maintained by the State and County agencies to obtain data and verify data, as needed.

IV. ISSUES, PROBLEMS, AND OPPORTUNITIES RELATED TO STATUS & ADEQUACY OF OFFICIAL CONTROLS, PLANS, AND OTHER LOCAL, STATE, AND FEDERAL PROGRAMS

Numerous controls, plans and programs exist that may be used to achieve the wellhead protection goals identified in this Plan. State and local units of government currently enforce land use ordinances, zoning laws, sewer ordinances, well permits, and groundwater use appropriation permits. The City will continue to work with Empire Township, Apple Valley, and Lakeville to ensure proper management of the portion of the DWSMA that extends into their respective municipality. It is anticipated that most local issues may be adequately addressed through these existing processes and adopting of best management practices.

The wellhead protection team does not recommend any additional regulations be imposed at this time. However, the team does recommend that overall regional coordination of wellhead protection efforts be initiated.

CHAPTER FOUR

WELLHEAD PROTECTION GOALS (4720.5240)

In accordance with Minnesota Rules 4720.5240 this section must address goals for present and future water use and land use to provide a framework for determining plan objectives and related actions.

Goals outlined in this part were selected based on the information gathered and compiled from the data elements, delineations of the WHPAs and DWSMA, results of the vulnerability assessments, results of the PCSI, expected changes in land and water uses, identified issues, problems, and opportunities, and evaluation of this information.

The public water supply is considered to be vulnerable. In addition, portions of the amended DWSMA extend into the Empire Township, City of Apple Valley and the City of Lakeville. Therefore, the goals and objectives of this Plan will focus on managing potential contaminant sources within the DWSMA, reducing the potential contaminant pathways to the source water aquifer that may be provided by private wells, educating property owners and water supply users, and working with Empire Township, Apple Valley, and Lakeville to ensure proper management of the portion of the DWSMA in their respective community.

The City of Rosemount's WHP team has identified the following goals for implementation of this Plan:

Goal 1: The City will work to maintain or improve the current level of water quality so that the municipal water supply will continue to meet or exceed all applicable state and federal water quality standards.

Goal 2: The City will work to continue to supply sufficient water quantity for system users and emergency needs.

Goal 3: The City will provide and promote activities that protect the source water aquifer that provides water to the municipal system. This will include increased public awareness of the Wellhead and Source Water Protection Program and groundwater-related issues, and management of the identified potential contaminant sources and conveyance mechanisms within the DWSMA.

Goal 4: The City will continue to collect data to support future wellhead and source water protection efforts.

CHAPTER FIVE

OBJECTIVES AND PLANS OF ACTION (4720.5250)

I. OBJECTIVES

Given the issues, problems, and opportunities discussed in Part Three and the goals stated in Part Four, the Wellhead Protection Plan delegates direct management efforts to the following areas to prevent future contamination of the aquifer and increase awareness of groundwater protection:

- | | |
|--------------------------------------|-------------------------------|
| <i>A. Well Management</i> | <i>H. Water Conservation</i> |
| <i>B. Public Education</i> | <i>I. Planning and Zoning</i> |
| <i>C. Storage Tank Management</i> | <i>J. Implementation</i> |
| <i>D. Septic Systems (ISTS)</i> | <i>K. Evaluation</i> |
| <i>E. Stormwater Management</i> | |
| <i>F. Hazardous Waste Management</i> | |
| <i>G. Data Collection</i> | |

II. PLANS OF ACTION

A. WELL MANAGEMENT

Objective A1: Take measures to promote property owners to properly seal abandoned, unused, unmaintained, or damaged wells.

Action A1: Make property owners aware of potential technical and financial resources that are available to assist them in securing grant funding for properly sealing wells.

Who: City of Rosemount Staff

Cooperators: MDH and Dakota County

Time Frame: Within 12 months following adoption of this Plan, then continue annually

Estimated Cost: Staff time

How: Use the City's website, newsletters, or direct mailings to make well owners aware of Dakota County's well sealing cost-share program.

Objective A2: Take measures to identify properties with abandoned, unused, unmaintained, or damaged wells and potential cross connections between private wells and the City's water system.

Action A2: Identify properties with potential water supply cross connections or wells that pose a hazard to the public water supply.

Who: City of Rosemount Staff or retained consultant

Cooperators: MDH, MDA, DNR, MPCA, Dakota County, Empire Township, Apple Valley, and Lakeville

Time Frame: Within 2 years following adoption of this Plan or when MDH grant is available.

Estimated Cost: Staff time or consultant time

How: Through mapping and field investigation, as well as historical records. When possible, the list of parcels likely to have wells will be incorporated into the City Building Officials records or shared with other cities in the DWSMA. When the application is made to rebuild or demolish an existing building, the records can be reviewed to determine if a well search is required.

Objective A3: Educate the public about proper well management.

Action A3: Provide links to MDH and Dakota County well management web sites on the City's website, include information in the City's newsletter or other direct mailings.

Who: City of Rosemount Staff

Cooperators: MDH, and Dakota County

Time Frame: Within 12 month of adoption, then continued annually

Estimated Cost: Staff time

How: Use the City's website, newsletters, or direct mailings.

Objective A4: Investigate "unlocated" or undocumented wells within the City and DWSMA.

Action A4: Provide data to MDH, Dakota County well management, and the Minnesota Geological Survey regarding the measured location of "unlocated" and undocumented wells, and investigate the "as-built" construction of wells without construction records.

Who: City of Rosemount Staff or retained consultant

Cooperators: MDH, Dakota County, and MGS

Time Frame: Following identification of "unlocated" and undocumented wells and when MDH grant is available.

Estimated Cost: Staff time

How: Through surface measurements and inspections.

Objective A5: Incorporate Wellhead Protection Initiatives into City Plans

Action A5: Rosemount will use this Wellhead Protection Plan as a resource when updating its Comprehensive Plan, Local Water Management Plan, Water Supply Plan, and other relevant plans.

Who: City of Rosemount Staff or retained consultant

Cooperators: Empire Township, Apple Valley, and Lakeville

Time Frame: Coinciding with plan preparation schedules for the specified plans.

Estimated Cost: Staff time

How: Wellhead Protection initiatives will be addressed and incorporated into Rosemount's various plan updates. Rosemount will cooperate with

neighboring and overlapping jurisdictions to address land use management issues for the portions of the DWSMA outside the City.

Objective A6: Identify New High-Capacity Wells within the DWSMA

Action A6: Rosemount will identify new high-capacity wells that are proposed for construction in or near Rosemount's DWSMA, and/or major changes to groundwater appropriations for existing high-capacity wells, to determine whether the pumping of wells will alter the current boundaries of the DWSMA delineations or other portions of the City's WHP Plan.

Who: City of Rosemount Staff or retained consultant
Cooperators: DNR and MDH
Time Frame: Within 1 year after the approval of this Plan and then annually
Estimated Cost: Staff time
How: Staff will annually request information from the Regional DNR office on any newly proposed/constructed high capacity wells within or near the DWSMA or any changes to existing appropriations permits for high capacity wells. Assistance from a retained consultant and the MDH will be requested to evaluate whether proposed pumping (or changes to pumping) will change the boundaries of the DWSMA delineated for Rosemount's wells or if the vulnerability of the aquifer the wells utilize will be affected.

B. PUBLIC EDUCATION (GENERAL)

Objective B1: Develop a public support and understanding for the wellhead protection plan through the use of web sites, newsletters, and handouts.

Action B1.1: Include information about wellhead protection and groundwater protection in the City newsletter.

Who: City of Rosemount Staff
Cooperators: MDH
Time Frame: Within 12 months following adoption of this Plan.
Estimated Cost: Staff time
How: Identify and obtain existing educational materials available from MDH and other sources. Write newsletter articles describing wellhead protection and include contact information and web site addresses for existing educational resources.

Action B1.2: Provide information about the Wellhead Protection Plan and links to other wellhead protection related resources on the City's web site.

Who: City of Rosemount Staff
Cooperators: MDH, Dakota County, MDA, and EPA
Time Frame: Ongoing
Estimated Cost: Staff time

How: Provide a summary of wellhead protection goals and implementation. Provide links to wellhead protection related web sites including MDH, Dakota County, MDA, and EPA.

Action B1.3: Educate property owners of agricultural lands on the issues related to agricultural activity and how these issues effect or relate to this WHPP.

Who: City of Rosemount Staff
Cooperators: Dakota County, SWCD, MDA, NRCS, OEA
Time Frame: Ongoing
Estimated Cost: Staff time
How: Coordinate with Dakota County's Environmental Education Program, the SWCD, and the Minnesota Department of Agriculture (MDA) to act as resources for best management practices in relation to agricultural land use. Other agencies such as the NRCS and the OEA have also established goals and strategies for environmentally safe land use practices. Information will be made available to identified property owners through the use of the City's website and mailers.

Action B1.4: Contact and educate land owners within mining/extractive land use areas of Empire Township regarding future use and development of the DWSMA that extends into the Township.

Who: City of Rosemount Staff
Cooperators: Dakota County, Empire Township and their retained consultants (engineering)
Time Frame: Ongoing
Estimated Cost: Staff time
How: A resolution passed by Empire Township gives the City of Rosemount opportunity to be involved in the land use and land development process within Empire Township and, thereby, ensuring protection of the source water aquifer within the DWSMA. Continued cooperation will be needed.

C. STORAGE TANK MANAGEMENT

Objective C1: **Notify owners of storage tanks located within the DWSMA that the tank is in a source water protection area, and educate the owners of properties containing the storage tanks of the importance of spill prevention.**

Action C1: **Update list of storage tank owners and** contact each property owner and make them aware of their placement within the City's wellhead protection area.

Who: City of Rosemount Staff
Cooperators: MPCA
Time Frame: Within 1 year following adoption of this Plan
Estimated Cost: Staff time

How: Send mailings out to property owners notifying them about the DWSMA delineation and the importance of spill prevention. Provide contact numbers for appropriate government agencies to each property owner.

Action C2: Hold information workshop with PCA to make storage tank owners aware of their placement within the City's wellhead protection area.

Who: City of Rosemount Staff

Cooperators: MPCA

Time Frame: Within 2 years following adoption of this Plan

Estimated Cost: Staff time

How: Send letter out to property owners notifying them of informational meeting and hold meeting in with PCA.

D. SEPTIC SYSTEMS (ISTS)

Objective D1: Coordinate with Dakota County to educate property owners about the need for having onsite sewage treatment systems that comply with environmental standards and other regulations.

Action D1: Assist the County's efforts to educate property owners about SSTS systems and property maintenance of them.

Who: City of Rosemount Staff

Cooperators: Dakota County

Time Frame: Ongoing

Estimated Cost: Staff time

How: Provide assistance to Dakota County as requested.

Objective D2: Cooperate with Dakota County to maintain a septic system inventory. Enforce the City's SSTS codes (Chapter 6)

Action D2: Set ISTS standards that are equal to or stricter than those contained in Minnesota Rules Chapter 7080.

Who: City of Rosemount Staff and Dakota County

Cooperators: Dakota County

Time Frame: Already in place and being implemented, ongoing

Estimated Cost: Staff time

How: The City of Rosemount has adopted Subsurface Sewage Treatment Systems (SSTS) standards (Chapter 6 of the City Code). Compliance is enforced by the City's Building Inspection Division.

E. STORMWATER MANAGEMENT

Objective E1: Educate the public on proper stormwater management, turf management, proper lawn care practices and water conservation.

Action E1: Provide information to the community with respect to the everyday issues regarding stormwater and lawn care.

Who: City of Rosemount Staff
 Cooperators: Dakota County
 Time Frame: 2012 growing season, then ongoing
 Estimated Cost: Staff time
 How: Include information on the City's website, in the City's newsletter, distribute direct mailers, or include water billing inserts to educate the community on some best management practices that may be implemented.

Objective E2: Cooperate with other agencies and programs to manage stormwater quality.

Action E2: Work in cooperation with the NPDES permit program implemented in areas overlapping the DWSMA

Who: City of Rosemount Staff, City Council
 Cooperators: MPCA, Dakota County, Vermillion River Watershed Joint Power Organization
 Time Frame: Ongoing
 Estimated Cost: Staff time
 How: The City of Rosemount has updated its Stormwater Pollution Prevention Plan (SWPPP) to meet NPDES stormwater permit requirements. The SWPPP includes measures for public education and outreach, public involvement and participation, illicit discharge detection and elimination, construction site runoff control, post construction runoff control, and pollution prevention and good housekeeping. Additional measure will be added to comply with current MPCA permit requirements. Many of the SWPPP goals are shared with the WHP Plan.

F. HAZARDOUS WASTE MANAGEMENT

Objective F1: Educate the public on the proper disposal of hazardous waste items.

Action F1: Jointly sponsor an annual household hazardous waste collection day with Dakota County in Rosemount.

Who: City of Rosemount Staff
 Cooperators: Dakota County
 Time Frame: Ongoing
 Estimated Cost: Staff time
 How: Include information on the City's website, in the City's newsletter, distribute direct mailers, or include water billing inserts to encourage residents within the DWSMA, and throughout the City, to participate in the County's household hazardous waste collection day.

Objective F2: Develop a Hazardous Waste Management Plan to protect the health, safety and welfare of the public and to protect the environment from hazardous waste contamination.

Action F2: Develop a Hazardous Waste Management Plan in relation to sand and gravel mining within the DWSMA in areas of high vulnerability.

Who: City of Rosemount Staff
 Cooperators: Dakota County and MPCA and communities within the DWSMA
 Time Frame: 2 years after plan approval
 Estimated Cost: Staff time
 How: Review existing hazardous waste management regulations and plans and develop a City plan for managing a hazardous waste release in a mining area located in an area of high vulnerability within the DWSMA.

Objective F3: Educate hazardous waste generators about hazardous waste management.

Action F3: Offer "Hazard Waste Training Seminar" for all hazardous waste generators covering all the information that the average generator needs to stay in compliance with the rules.

Who: City of Rosemount Staff
 Cooperators: Dakota County/ MNTAP
 Time Frame: 2016
 Estimated Cost: Staff time
 How: Include information on the City's website or in the City's newsletter to encourage residents and business owners within the DWSMA, and throughout the City, to participate in Hazardous Waste Training Seminars sponsored by the County or other agencies.

G. DATA COLLECTION

Objective G1: Continue to collect and maintain local geologic and hydrogeologic data in order to improve and augment current information and to provide additional data for future revisions to this Plan.

Action G1.1: Monitor static and pumping levels in municipal wells.

Who: City of Rosemount Staff
 Cooperators: None
 Time Frame: Already in place, ongoing
 Estimated Cost: Staff time
 How: Conduct routine collection of groundwater levels in the municipal wells, which will provide data for the evaluation of groundwater elevation trends over time. A decreasing trend in static water levels in the municipal wells may be cause for the City to pursue more restricted water use measures and /or more effective methods to control public

water supply use. This data can also be used to verify the groundwater flow field in the source water aquifer.

Action G1.2: Cooperate and support future data collection efforts by other agencies.

Who: City of Rosemount Staff or retained consultant
 Cooperators: MPCA, DNR, MDH, MCES, USGS, neighboring cities, and Dakota County
 Time Frame: Already in place, ongoing
 Estimated Cost: Staff time
 How: Provide assistance to agencies as requested.

Objective G2: Evaluate the water quality monitoring strategy and results to ensure that they are consistent with federal and state requirements yet also take into account local conditions.

Action G2: Maintain water quality sampling requirements mandated by MDH and analyze trends in water chemistry, looking for any possible degradation of quality or changes in aquifer hydraulics.

Who: City of Rosemount Staff
 Cooperators: MDH
 Time Frame: Already in place, ongoing
 Estimated Cost: Staff time
 How: Identify changes to trends in water chemistry by evaluating records of analysis results. This includes sharing data with the MDH and the option to sample for radiological testing.

Objective G3: Monitor surface water to groundwater connection during mining activities and after mine pit lake is constructed in UMore mining area.

Action G3.1: Work with MDH to conduct stable isotope sampling and testing.

Who: City of Rosemount Staff
 Cooperators: MDH
 Time Frame: Annually after mine pit lake construction
 Estimated Cost: Staff time
 How: MDH to perform stable isotope sampling and testing.

Action G3.2: Work with MDH to conduct tritium sampling and testing.

Who: City of Rosemount Staff
 Cooperators: MDH
 Time Frame: Already in place, ongoing
 Estimated Cost: Staff time
 How: MDH to perform tritium sampling and testing every 5 years to assess change in aquifer vulnerability.

Action G3.3: Require and review groundwater monitoring plan to be submitted with mining permits and review monitoring results annually.

Who: City of Rosemount and consultant Staff
 Cooperators: Mining Company, MDH
 Time Frame: During Mining Permit approval process & annual review of permit.
 Estimated Cost: Staff time
 How: Review groundwater monitoring plan submitted with mining applications specifically monitoring well locations and sampling plan. Review monitoring data annually at a minimum and adjust plan as needed based on results.

Objective G4: Maintain up to date information about wells and potential contaminant sources within the DWSMA.

Action G4: In cooperation with existing state or local agencies and programs, create and maintain a database of wells, ISTS, storage tanks, and shallow disposal wells within the DWSMA.

Who: City of Rosemount Staff
 Cooperators: MDH and Dakota County
 Time Frame: Data base already created, review annually and update as funding is available.
 Estimated Cost: Staff time or consultant time.
 How: An inventory of wells and potential contaminant sources was performed as part of the development of this Plan. Data base will be reviewed annually and updated as information becomes available.

H. WATER CONSERVATION

Objective H1: Implement a community-wide water conservation program.

Action H1: Implement conservation measures included in the Water Supply Plan as part of the 2030 Comprehensive Plan.

Who: City of Rosemount Staff
 Cooperators: None
 Time Frame: Already in place, ongoing
 Estimated Cost: Staff time
 How: Educate the public to encourage users to voluntarily incorporate water saving habits and tools into their lifestyles, improve the exiting water system's operation and maintenance procedures and incorporate costs associated with water conservation programs, adjusting water rate structure and ensure that all customers are paying for the water they use through audits and meter replacement or calibration.

I. PLANNING AND ZONING

Objective I1: Eliminate or reduce the potential pollution risks to the source water aquifer and minimize the risk of altering the WHPA and DWSMA area.

Action I1: Include a review of this Plan as part of the normal zoning and planning review process.

Who: City of Rosemount Staff
 Cooperators: None
 Time Frame: Already in place, ongoing
 Estimated Cost: Staff time
 How: Copies of this Plan will be distributed to the City Planner and Planning Department and they will review this Plan as part of their planning review process.

Action I2: Participate with other jurisdictions within the DWSMA to identify land use changes outside the city limits.

Who: City of Rosemount Staff
 Cooperators: Empire Township, City of Lakeville, City of Apple Valley
 Time Frame: Completed as part of the WHPP process
 Estimated Cost: Staff time
 How: Copies of this Plan will be distributed to other jurisdictions within the DWSMA.

J. IMPLEMENTATION

Objective J1: Track and report Wellhead Protection activities to aid in implementing Wellhead Protection Objectives

Action J1: Complete and submit an annual report on completed WHP activities to the Utility Commission.

Who: City of Rosemount Staff or consultant
 Cooperators: None
 Time Frame: Annually after approval of plan
 Estimated Cost: Staff time or consultant time
 How: Report will be prepared and provided to the Utility Commission.

K. EVALUATION

Objective K1: Evaluate Plan

Action K1: Complete an evaluation report every 2.5 years

Who: City of Rosemount Staff or consultant
 Cooperators: None
 Time Frame: Every 2.5 years

Estimated Cost: Staff time or consultant time
How: Prepare a written report using the MDH Wellhead Protection Program Evaluation form or a format selected by the City. Provide report to the Utility Commission, City Council and MDH Source Water Protection Unit.

CHAPTER SIX

EVALUATION PROGRAM (4720.5270)

The success of the Wellhead Protection Plan must be evaluated in order to determine whether or not the Plan is accomplishing what the City of Rosemount intended to do. Monitoring and evaluation of the Wellhead Protection Plan and associated activities will be conducted every two years that the Plan is in effect. The evaluation activities will include the following items:

- Track the implementation of the goals, objectives, activities, and tasks discussed in Part Five of this Plan;
- Determine the effectiveness of specific management strategies regarding the protection of Rosemount's municipal 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 each year.

The City of Rosemount will continue to coordinate with the MDH in the annual monitoring of the City's municipal water supply to determine if the management strategies presented in this Plan are having a positive impact on water quality and to identify what water quality problems may still be occurring and how they need to be addressed.

At the end of each evaluation period (every two and a half years) City Staff will make a written report to the City of Rosemount City Council regarding progress in implementing the Wellhead Protection Plan, as well as an evaluation of the costs and benefits of the Plan activities. This report may be completed using the MDH Wellhead Protection Program Evaluation form. A copy of the report will also be sent to the MDH Source Water Protection Unit in St. Paul. The City will also keep a copy of the report in its records. The intent of the annual reports is to compile a complete and comprehensive study of the implementation the source management strategies for use when the City updates or revises this Plan. As required by the Wellhead Protection Rules, this Plan will be updated every 10 years at a minimum.

CHAPTER SEVEN

ALTERNATIVE WATER SUPPLY CONTINGENCY STRATEGY (4720.5280)

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

In October 2007, Rosemount completed its Water Emergency and Conservation Plan, an update to its May 1996 Plan. As required, the plan was submitted to the DNR Waters-Water Permit Programs and the Metropolitan Council for review and approval. The plan has been adopted by the City and incorporated in the City's 2030 Comprehensive Plan. Copies of the Water Emergency and Conservation Plan and the 2030 Comprehensive Plan are available from the City.

APPENDIX A - TABLES

TABLE 1: POTENTIAL CONTAMINANT SOURCE INVENTORY - FALL 2011

Number	MPCA ID	Name	Address	City	Activity	Status	Vulnerability
1	3788447	Haefs Brothers	Address Unknown	Rosemount	Feedlot	Active	High
2	124029	Cemstone Products Co	4360 170th St W	Rosemount	Tank Site	Inactive	Moderate
3	MNS000113217	Cemstone Products Co - Farmington	4360 170th St W	Farmington	Hazardous Waste, Small to Minimal QG	Inactive	Moderate
4	Multiple Activities	Hedberg Aggregates Inc	4375 170th St W	Farmington	Multiple Activities	Active	Moderate
5	Multiple Activities	Cemstone Products Co - Empire Pit 170th	4375 170th St W	Farmington	Multiple Activities	Active	Moderate
6	6886	Star Radio Facility	4272 170th W	Lakeville	Leak Site	Inactive	Moderate
7	REM03779	City of Rosemount Dump	See location description	Rosemount	Unpermitted Dump Site	Inactive	Moderate
8	Multiple Activities	Williams Energy Services - Rosemount	15938 S Robert Trl	Rosemount	Multiple Activities	Active	High
9	MNS000110015	Dosco Design Build Inc	16273 Chippendale Ave W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate
10	122576	Dakota County Trans Dept	2800 160th St W Empire Township	Rosemount	Tank Site	Active	Low
11	Multiple Activities	Dakota County Transportation	2800 160th St W	Rosemount	Multiple Activities	Active	Low
12	Multiple Activities	Phil's Body Shop Inc	2955 160th St W	Rosemount	Multiple Activities	Active	Low
13	MNR000060293	AAA Auto Salvage - Rosemount	2871 160th St W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Low
14	MNR000109306	Metropolitan Mosquito Control	2695 160th St W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Low
15	Multiple Activities	Commercial Asphalt Co - Plant 903	4000 160th St W	Rosemount	Multiple Activities	Active	Moderate
16	Multiple Activities	JD Woodcraft Inc	2605 160th St W Ste 109	Rosemount	Multiple Activities	Active	Low
17	MNS000121707	Allison Specialty Components - Rosemount	2605 160th St W Ste 114	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Low
18	MND985676600	AAA Auto Salvage	2595 160th St W	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	Low
19	7154	Ag Research Center	2375 160th St W	Rosemount	Leak Site	Inactive	Moderate
20	Multiple Activities	AAA Auto Salvage / U-Pull-R-Parts	2871 160th St W	Rosemount	Industrial Stormwater Permit	Active	Low
21	VP18540	Lange Gas	160th St and Robert Trail S	Rosemount	Voluntary Investigation & Cleanup (VIC)	Inactive	High
22	10920	Mcmenomy Farm	15872 Chippendale Ave	Rosemount	Leak Site	Inactive	Low
23	MNR000118760	Dakota Fence of Minnesota Inc	15953 Biscayne Ave W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate
24	Multiple Activities	Knutson Services Inc	2875 160th St	Rosemount	Multiple Activities	Active	Low
25	VP20130	Rosemount Mini Storage	15854 Chippendale Ave	Rosemount	Voluntary Investigation & Cleanup (VIC)	Inactive	Low
26	MND093919371	Murgic's Automotive Inc	15640 Canada Cir	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate
27	MNR000025460	Rosemount Electric	15659 Cornell Ct N	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
28	Multiple Activities	Rosemount Demolition Landfill	See location description	Rosemount	Multiple Activities	Active	Moderate
29	MNR000000737	City Limits Lanes	15400 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate
30	MND058335779	Rosemount Boating Ctr dba Rilar Marine	3316 152nd St W	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	High
31	MN0000199521	Ricks Automotive Repair	15280 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate
32	MND982636714	Eim Auto	15185 Carrousel Way	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
33	MNR000060301	Service Master - Rosemount	15185 Carrousel Way Ste B	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
34	Multiple Activities	Webb Co	15197 Boulder Ave	Rosemount	Multiple Activities	Active	Moderate
35	MND131549206	ISD 196 - Rosemount	15180 Canada Ave W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
36	Multiple Activities	District #196 Office East	15180 Canada Ave W	Rosemount	Multiple Activities	Active	High
37	Multiple Activities	Wensmann Homes	3312 151st St W	Rosemount	Multiple Activities	Active	High
38	MN0000474056	Rosemount Family Physicians	15120 Chippendale Ave W # SiteB	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
39	MN0000201608	Chroust Kurt DDS	15120 Chippendale Ave W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
40	MND982208704	CQ of Rosemount Minnesota 2161	3320 151st St W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
41	PW5103024103	Taylor Rental	3322 151st St W	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	High
42	1098	Bill Berg Construction Co Inc	3328 151st St W	Rosemount	Tank Site	Inactive	High
43	Multiple Activities	Carlson Equipment	15125 S Robert Trl	Rosemount	Multiple Activities	Active	Moderate
44	Multiple Activities	Commercial Millwork Solutions	15051 Biscayne Ave W	Rosemount	Multiple Activities	Active	High
45	MNS000162719	Dakota Childrens Dentistry	3410 151st St	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
46	122063	Kwik Trip #397	15065 Dodd Blvd	Apple Valley	Tank Site	Active	High
47	MNS000142893	Fairview Rosemount Clinic	15075 Cimarron Ave	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
48	MNS000157602	Walgreen's Store 4038	15034 Shannon Pkwy	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
49	1130	Holiday Stationstore #222	15066 Chippendale Ave	Rosemount	Tank Site	Active	High
50	Multiple Activities	Tom Thumb Food Markets #276	15040 Canada Ave	Rosemount	Multiple Activities	Inactive	High
51	MNS000154039	Cub Foods 1651	3784 150th St W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
52	55564	Valvoline Rapid Oil Change	3480 150th St	Rosemount	Tank Site	Active	High
53	MNR000009266	Valvoline Instant Oil Change	3480 150th St W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
54	MNS000151191	Robinson Dental Excellence	15031 Crestone Ave W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
55	MNS000106179	Checker Auto Parts 1858	3420 150th St W Ste 109	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
56	MNR000062430	Cannon Equipment	15100 Business Pkwy	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate

TABLE 1: POTENTIAL CONTAMINANT SOURCE INVENTORY - FALL 2011

Number	MPCA ID	Name	Address	City	Activity	Status	Vulnerability
57	Multiple Activities	Navy Reserve Intellig. Area 10	14950 Akron Ave	Rosemount	Multiple Activities	Active	Moderate
58	MNS000139758	Rosemount Dental	14895 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
59	3788549	State of Minnesota	Address Unknown	Rosemount	Feedlot	Active	High
60	MND064765514	Roys Sports Center	14815 Dallara Ave W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
61	Multiple Activities	Auto Fitness Center The	14810 S Robert Trl	Rosemount	Multiple Activities	Inactive	High
62	52660	Master Transmission	14805 Robert Trl	Rosemount	Tank Site	Active	High
63	Multiple Activities	Extreme Motor Sports	14785 S Robert Trl	Rosemount	Multiple Activities	Active	High
64	Multiple Activities	River Country Cooperative	4411 Upper 291st St E	Randolph	Multiple Activities	Active	High
65	MND981948185	Dakota Equipment Repair	14762 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	High
66	MND982640450	Cha's Auto Imports	14760 S Robert Trl Ste 1	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
67	MNS000160721	Rosemount Saw & Tool	14760 S Robert Trl Ste 3	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
68	MNR000064527	Genuine Parts Co - Napa Auto	14760 S Robert Trl Ste 2	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
69	PW5103022087	New Rosemount Dodge The	14755 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	High
70	1163	Genz-ryan Plumbing & Heating Co	14745 S Robert Trl	Rosemount	Tank Site	Inactive	High
71	VP22482	DCTC Leased Property (see UMORE Park)	See location description	Rosemount	Voluntary Investigation & Cleanup (VIC)	Active	High
72	MND985743780	A Womans Touch Furniture Restoration	14690 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
73	12835	4th Street Switch Station	14685 S Robert Trl	Rosemount	Leak Site	Inactive	High
74	12835	Super 7	14685 S Robert Trl	Rosemount	Tank Site	Active	High
75	MN0000975656	Shamrock Animal Hospital	14670 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
76	MND060477411	Rosemount Saw & Tool - 14650	14650 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	High
77	Multiple Activities	Former Ratzlaff Service Station	14630 S Robert Trl	Rosemount	Multiple Activities	Active	High
78	1154	Former Murgics Service Station	15635 S Robert St	Rosemount	Tank Site	Inactive	High
79	Multiple Activities	Mike M Murgic	15635 S Robert Trl	Rosemount	Multiple Activities	Active	High
80	123240	Brockway Glass	13500 Highway 3 S	Rosemount	Tank Site	Inactive	High
81	121676	Bentson Asphalt	160th St	Coates	Tank Site	Active	High
82	55460	Pine Bend Pump Station	Highway 55 & Highway 52	Rosemount	Tank Site	Active	High
83	18720	M F Mickelson	12145 12155 Danbury Way	Rosemount	Tank Site	Inactive	High
84	16159	Chicago & Northwestern Trans Co	1849 Highway 42	Rosemount	Tank Site	Inactive	High
85	13471	Rosemount Station	Highway 42 W	Rosemount	Tank Site	Active	High
86	Multiple Activities	Gopher Ordnance Plant	See location description	Rosemount	Multiple Activities	Active	High
87	3788255	Richard Fox Farm	Address Unknown	Rosemount	Feedlot	Active	High
88	18435	Oak Ridge Elementary School	4350 Johnny Cake Ridge Rd	Rosemount	Tank Site	Active	High
89	MNS000146142	Magellan Pipeline Co LP - Pump Station	12555 Clark Rd Pump Station	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
90	3788247	Jeff Schoeller Farm	Address Unknown	Rosemount	Feedlot	Active	High
91	MNS000106922	Car-Nav-5	160th St & Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
92	18295	Former Genz-Ryan Property	Lower 147th St W and Robert Tr S	Rosemount	Leak Site	Active	High
93	4672	Rosemount Research Center	15325 Babcock Ave 1920 153rd St	Rosemount	Tank Site	Active	High
94	MND985756378	Chicago Northwestern Rr	Twp 115N R 19W Sec 28 NW 1/4	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	High
95	MNR000028464	Rosemount Family Dentistry PA	14590 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
96	MND023010812	Greif Bros Corp	2750 145th St W	Rosemount	CERCLIS Site	Inactive	High
97	MND981802481	Champion Auto Store 405	14555 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
98	MNR000065367	Savemore Automotive	14555 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
99	MNS000135343	ISD 917 Technical Center	1300 145th St E Door 13	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
100	Multiple Activities	Dakota County Technical College	1300 145th St E	Rosemount	Multiple Activities	Active	High
101	MND985722024	Snyder Ronald J Dds	14525 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	High
102	MND985706936	Johnson Family & Sports Chiropractic	14520 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	High
103	Multiple Activities	Nash of Rosemount	14515 Dodd Blvd	Rosemount	Multiple Activities	Active	High
104	1173	Formrcity Of Rosemount City Hall	1367 145th St E	Rosemount	Tank Site	Inactive	High
105	MND985709641	NAPA Rosemount	2990 145th St W	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	High
106	MND985752377	Geraghty James H & William H	2978 145th St W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
107	MND050729532	Meisenholders Quick Cleaners	2978 145th St W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
108	MND023010812	Greif Brothers Corp - Rosemount	2750 145th St W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate
109	1270	Greif Brothers Corp	2750 145th St W	Rosemount	Tank Site	Inactive	Moderate
110	MNR000026567	MN Energy Resources - Rosemount	2665 145th St W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate
111	10330	City Of Rosemount Public Works Garage	2875 145th St W	Rosemount	Leak Site	Inactive	High
112	1224	Truck Station District #9	2835 145th St W	Rosemount	Tank Site	Inactive	High

TABLE 1: POTENTIAL CONTAMINANT SOURCE INVENTORY - FALL 2011

Number	MPCA ID	Name	Address	City	Activity	Status	Vulnerability
113	Multiple Activities	Frontier Communications	14475 Cameo	Rosemount	Multiple Activities	Active	High
114	VP11300	Cy-Con Yard	2929 145th St	Rosemount	Voluntary Investigation & Cleanup (VIC)	Inactive	High
115	MN0000017319	Johnson Chiropratic	14465 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
116	Multiple Activities	Larrys Standard	14460 S Robert Trl	Rosemount	Multiple Activities	Active	High
117	MN0000133959	Rosemount Chiropractic Center	14450 S Robert Trl Ste 208	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
118	Multiple Activities	Dakota Central Offices	14450 S Robert Trl	Rosemount	Multiple Activities	Active	High
119	MN0000010645	Rosemount Medical Clinic	14450 S Robert Trl Ste 204	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	High
120	Multiple Activities	Rosemount Middle/Elementary - CSW	3155 144th St W	Rosemount	Multiple Activities	Active	High
121	MNR000105650	ISD 196 Rosemount Elementary School	3155 144th St W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
122	VP10420	Geraghty Property	2978 W 145th St	Rosemount	Voluntary Investigation & Cleanup (VIC)	Inactive	High
123	634	Rosemount Development	145th St & S Robert Trl	Rosemount	Leak Site	Inactive	High
124	MND985667161	Dakota County Public Health	14455 Brazil Ave W	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	Moderate
125	Multiple Activities	Rosemount City Of	14455 Brazil Ave W	Rosemount	Multiple Activities	Active	Moderate
126	MND982211286	Shamrock Animal Hospital	14390 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
127	MND023011133	Frontier Ag & Turf	2925 145th St	Rosemount	Hazardous Waste, Small to Minimal QG	Active	High
128	17602	Church Of Saint Joseph	14375 S Robert Trl	Rosemount	Tank Site	Inactive	High
129	13742	Saint Joseph School	14355 S Robert Trl	Rosemount	Tank Site	Active	High
130	12421	City Of Rosemount Mechanic Gara	14435 Brazil Ave	Rosemount	Tank Site	Active	Moderate
131	Multiple Activities	Dakota County Highway Dept	14300 Biscayne Ave	Rosemount	Multiple Activities	Active	Moderate
132	Multiple Activities	ISD 196 Rosemount Middle School	3135 143rd St W	Rosemount	Multiple Activities	Active	High
133	Multiple Activities	Knutson Rubbish	14345 Biscayne Ave W	Rosemount	Multiple Activities	Active	Moderate
134	MND981100498	Dakota County Highway Dept	14300 Biscayne Ave W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate
135	Multiple Activities	Rosemount Organizational Mntnce Shop	14221 Biscayne Ave W	Rosemount	Multiple Activities	Active	Moderate
136	MNR000016634	National Guard Maintenance OMS 1	14221 Biscayne Ave W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate
137	Multiple Activities	Rosemount High School - CSW	3335 142nd St W	Rosemount	Multiple Activities	Active	Moderate
138	MND982618126	Isd 196 Rosemount High School	3335 142nd St W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate
139	MND102246733	Ricks Auto Repair	13975 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate
140	MND982209140	Dakota Small Engine Service	13965 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Moderate
141	MND052710050	A & G Autobody Inc	13955 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	Moderate
142	MN0000994418	Community Center	13885 S Robert Trl	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Low
143	Multiple Activities	Rosemount TACC	13865 S Robert Trl	Rosemount	Multiple Activities	Active	Low
144	VP1170	Brockway Glass	Rt. 3 & 135th St W	Rosemount	Voluntary Investigation & Cleanup (VIC)	Inactive	Moderate
145	REM03810	Closed Sewage Treatment Plant	See location description	Rosemount	Unpermitted Dump Site	Inactive	Low
146	3788251	Jeffrey Nelson Farm	Address Unknown	Rosemount	Feedlot	Active	Moderate
147	3788253	John H Gillespie Farm	Address Unknown	Rosemount	Feedlot	Inactive	Moderate
148	MND023010614	Phils Auto Body	2025 135th St W	Rosemount	Hazardous Waste, Small to Minimal QG	Active	Low
149	3788249	James D Pickens Farm	Address Unknown	Rosemount	Feedlot	Active	Moderate
150	3788259	Arthur T McMenomy Jr Farm	Address Unknown	Rosemount	Feedlot	Active	Moderate
151	PW5103025012	Mn Operating Engineers	PO Box E 1	Rosemount	Hazardous Waste, Small to Minimal QG	Inactive	Low
152	185969				DO	A	MGS
153	255137	MGS-12			SI	U	MGS
154	179702	TREVIS, WALTER			DO	A	MGS
155	100962	MEYERS, WILLARD			DO	A	MGS
156	407103	LAUER, ALBERT			DO	A	MGS
157	185278	U OF M ROSEMOUNT #2			IR	A	MGS
158	553561	COMMERCIAL ASPHALT			DO	A	
159	207602				DO	A	MGS
160	437879	MARANELL, BOYD			DO	A	MGS
161	232246	NORTHERN PROPANE GAS			OT	A	MGS
162	506638	AAA AUTO SALVAGE			DO	A	MGS
163	198269	MARGIC, MIKE			DO	A	MGS
164	207617	SWINE AND SHEEP FARM			DO	A	MGS
165	101119	DEHMLow, DOUG			DO	A	MGS
166	509060	ROSEMOUNT 8			PC	A	MGS
167	554248	ROSEMOUNT 9			PC	A	MDH
168	101181	WACHTER, DON			DO	A	MGS

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Number	MPCA ID	Name	Address	City	Activity	Status	Vulnerability
169	706804	ROSEMOUNT 12			PC	A	MDH
170	441911	U OF M BEEF BARN			DO	A	MGS
171	208404	UNIV. OF MN. NORTH BEET FARM			DO	A	MGS
172	207616	FIELD WELL			IR	A	MGS
173	112212	ROSEMOUNT 7			PC	A	MGS
174	441909	U OF M SWINE BARN			DO	A	MGS
175	208400	AG. EXP. STATION ROSEMOU				A	MGS
176	207601	OSTERTAG, BARNEY			DO	A	MGS
177	212277	ROSEMOUNT 5			PC	A	MGS
178	212000	ROSEMOUNT 4			PC	A	MGS
179	216482	BROBACK, JOHN			DO	A	MGS
180	174675	DAKOTA COUNTY AREA VO. I			DO	A	MGS
181	208401	ROSEMOUNT 1			PC	A	MGS
182	201152	ROSEMOUNT 2			PC	A	MGS
183	412400	RELLER, JOHN			DO	A	MGS
184	207614	VILLAGE HALL			PS	A	MGS
185	457167	ROSEMOUNT 1 N			PC	A	MGS
186	474335	ROSEMOUNT RURAL 2 S			PC	A	MGS
187	753663	ROSEMOUNT 15			PC	A	MDH
188	702837	ROSEMOUNT MUNI TW-14			TW	A	MGS
189	722623	ROSEMOUNT 14			PC	A	MDH
190	128715	GILLESPIE, JACK			DO	A	MGS
191	208398	ENGLINT, EDWIN			DO	A	MGS
192	101047	ALBU, PAUL			DO	A	MGS
193	159506	GILLISPIE, TIM			DO	A	MGS
194	128714	KRIESEL, WALTER JR.			DO	A	MGS
195	124320	MCMENOMY, ARTHUR SR.			DO	A	MGS
196	216203	NORTHERN NATURAL GAS			CO	A	MGS
197	186309	ANDERSON, JERRY			DO	A	MGS
198	255146	MGS-21			SI	U	
199	23940	JOE MARTHALER	170 ST	Coates	35250		500
200	53158	NSP	15636 Cornell Trail	Rosemount	36798		3
201	52911	NSP	15636 Cornell Trail	Rosemount	36770		1
202	24533	LUNDA CONSTRUCTION	15601 CLAYTON AVE S	Rosemount	35349		55
203	17188	UNKNOWN	4300 WEST 155TH STREET	Rosemount	33665		55
204	15866	UNKNOWN	4300 155TH STREET	Rosemount	33664		0
205	16773	KNUTSON SERVICES, INC.	15120 CHIPPENDALE	Rosemount	33864		110
206	30583	HOLIDAY COMPANIES	15066 CHIP N' DALE AVENUE	Rosemount	36321		15
207	50076	Holiday Companies	15066 CHIPPENDALE AVE	Rosemount	36446		
208	26831	PIPELINE	14950 AKRON AVE	Rosemount	35728		0
209	5654	UNKNOWN	14550 SO ROBERT TR	Rosemount	32713		30
210	14679	ED MCMENOMY	14450 SOUTH ROBERT TRAIL	Rosemount	33339		0
211	16487	KNUTSON SERVICES, INC.	14345 BISCAYNE AVENUE	Rosemount	33798		10
212	5881	INDEPENDENT SCHOOL DIST #196	3135 143RD ST W	Rosemount	32735		0
213	23082	MIDDLE SCHOOL	3135 143RD ST	Rosemount	35118		10
214	19054	WINTZ COMPANY	13500 SOUTH ROBERT TRAIL	Rosemount	34367		15
215	4391	WINTZ COMPANIES	13500 ROBERT TR S	Rosemount	32491		
216	15997	WINTZ COMPANY	13500 SOUTH ROBERT TRAIL	Rosemount	33693		10
217	51989	NSP @ Keegan Lake Substation	2425 RONAIRES PATH WEST	Rosemount	36652		20
218	17330	NORTHERN STATES POWER COMPANY	2425 RONAIRES PATH WEST	Rosemount	33985		25
219	3040	Pesticide Disposals		Apple Valley	Agricultural Disposal		
220	5080	Star Radio Facility LUST		Empire Township	Spill, Leak, Leach or Inject Release		
221	5080	Star Radio Facility LUST		Empire Township	Spill, Leak, Leach or Inject Release		
222	5034	Model Concrete		Empire Township	Industrial Waste Disposal		
223	5136	Model Concrete		Empire Township	Industrial Waste Disposal		
224	5137	NW of 160th Street & Shannon Parkway		Rosemount	Large, Unilimited Variety		

TABLE 1: POTENTIAL CONTAMINANT SOURCE INVENTORY - FALL 2011

Number	MPCA ID	Name	Address	City	Activity	Status	Vulnerability
225	5138	Appliance Service Disposals		Rosemount	Mixed Municipal/Industrial/Hazardous Waste		
226	5038	Murgis Auto Disposal		Rosemount	Hazardous Waste Disposal		
227	5039	Rosemount South Dump		Rosemount	Large, Unilimited Variety		
228	5141	Rosemount Demolition		Rosemount	Regulated Waste Facility		
229	5143	Rosemount Elevator Disposal		Rosemount	Industrial Waste Disposal		
230	5079	Carlson Tractor & Equipment Co LUST		Rosemount	Spill, Leak, Leach or Inject Release		
231	5079	Carlson Tractor & Equipment Co LUST		Rosemount	Spill, Leak, Leach or Inject Release		
232	5145	CP Rail Crow and Crow Ready Mix disposals		Rosemount	Large, Unilimited Variety		
233	5145	CP Rail Crow and Crow Ready Mix disposals		Rosemount	Large, Unilimited Variety		
234	5043	Rosemount Central Dump		Rosemount	Large, Unilimited Variety		
235	5146	Rosemount Ride Share		Rosemount	Large, Unilimited Variety		
236	5146	Rosemount Ride Share		Rosemount	Large, Unilimited Variety		
237	5047	Saint Joseph's Cemetary Dump		Rosemount	Large, Unilimited Variety		
238	5148	Alliance Lumber		Rosemount	Industrial Waste Disposal		
239	5049	Demolition #49 Used Car Demolition Dump		Rosemount	Large, Unilimited Variety		
240	5150	Pizza Shop Demolition Dump		Rosemount	Large, Unilimited Variety		
241	5100	Pond SE of 160th Street East & Shannon Parkway		Empire Township	Large, Unilimited Variety		
242	5097	Gas Supply Lead Paint Disposal		Rosemount	Industrial Waste Disposal		
243	5098	Demolished Building Rosemount		Rosemount	Large, Unilimited Variety		
244	5001	Maranell Dump		Empire Township	Agricultural Disposal		
245	5002	Strese Oil Company & Rosemount Ice Company		Rosemount	Hazardous Waste Disposal		
246	5073	GOW Burning Ground		Rosemount	Industrial Waste Disposal		
247	5105	Knutson Transfer		Rosemount	Regulated Waste Facility		
248	5104	Knutson Transfer		Rosemount	Regulated Waste Facility		
249	5104	Knutson Transfer		Rosemount	Regulated Waste Facility		
250	5110	Recycle Minnesota Resources		Rosemount	Regulated Waste Facility		
251	5152	AES Disposal		Empire Township	Large, Unilimited Variety		
252	5120	GOW Hazardous Waste Burn Pit		Rosemount	Hazardous Waste Disposal		
253	5120	GOW Hazardous Waste Burn Pit		Rosemount	Hazardous Waste Disposal		
254	5121	AES Beef Research North		Rosemount	Large, Unilimited Variety		
255	5121	AES Beef Research North		Rosemount	Large, Unilimited Variety		
256	5327	Dakota County Highway Shop LUST		Rosemount	Spill, Leak, Leach or Inject Release		
257	5004	Brockway Glass Wastewater Lagoon West		Rosemount	Industrial Waste Disposal		
258	5161	Greif Bros Corporation Disposal		Rosemount	Hazardous Waste Disposal		
259	5161	Greif Bros Corporation Disposal		Rosemount	Hazardous Waste Disposal		
260	5355	GOW Officers Quarters Cesspools Abandoned		Rosemount	Industrial Waste Disposal		
261	5358	Brockway Glass Disposals		Rosemount	Hazardous Waste Disposal		
262	5358	Brockway Glass Disposals		Rosemount	Hazardous Waste Disposal		
263	5359	Rosemount Wastewater Treatment Lagoon		Rosemount	Regulated Waste Facility		
264	5359	Rosemount Wastewater Treatment Lagoon		Rosemount	Regulated Waste Facility		
265	5366	Brockway Glass Property Dump		Rosemount	Hazardous Waste Disposal		
266	5366	Brockway Glass Property Dump		Rosemount	Hazardous Waste Disposal		
267	5368	Williams Pipeline Company Spill		Rosemount	Spill, Leak, Leach or Inject Release		
268	5369	AAA Auto Salvage		Rosemount	Hazardous Waste Disposal		
269	5369	AAA Auto Salvage		Rosemount	Hazardous Waste Disposal		
270	5040	Hampton Development Corporation		Rosemount	Household or Farm Dump		
271	5060	Geronime Farm Dump		Empire Township	Household or Farm Dump		
272	5075	Incidental Dumping		Rosemount	Household or Farm Dump		
273	5140	Rosemount Construction Yard Disposal		Rosemount	Spill, Leak, Leach or Inject Release		
274	5112	Rail Spur Incidental Disposals		Rosemount	Industrial Waste Disposal		
275	5086	Geronime Disposals		Empire Township	Industrial Waste Disposal		
276	5086	Geronime Disposals		Empire Township	Industrial Waste Disposal		
277	5165	Garrety Building Release		Rosemount	Hazardous Waste Disposal		
278	5089	Chicago Northwestern Railroad Dump		Rosemount	Industrial Waste Disposal		
279	5320	Dakota County Highway Storage & Disposals		Rosemount	Industrial Waste Disposal		
280	5091	AAA Auto Salvage		Rosemount	Industrial Waste Disposal		

TABLE 1: POTENTIAL CONTAMINANT SOURCE INVENTORY - FALL 2011

Number	MPCA ID	Name	Address	City	Activity	Status	Vulnerability
281	3184	Model Stone Cement & Asphalt Dumps		Apple Valley	Industrial Waste Disposal		
282	3337	Prairie Crossings LUST		Apple Valley	Spill, Leak, Leach or Inject Release		
283	5404	City of Rosemount Public Works Garage LUST		Rosemount	Spill, Leak, Leach or Inject Release		
284	5400	Transportation Facility LUST		Rosemount	Spill, Leak, Leach or Inject Release		
285	5408	Frontier Communications LUST		Rosemount	Spill, Leak, Leach or Inject Release		
286	5410	Tom Thumb LUST		Rosemount	Spill, Leak, Leach or Inject Release		
287	5409	Former Arctic Cat LUST		Rosemount	Spill, Leak, Leach or Inject Release		
288	5423	Dakota County Vo Tech LUST		Rosemount	Spill, Leak, Leach or Inject Release		
289	5406	Amoco SS #8585 LUST		Rosemount	Spill, Leak, Leach or Inject Release		
290	5413	Rosemount Development LUST		Rosemount	Spill, Leak, Leach or Inject Release		
291	5403	Kellys Fuel (Texaco) LUST		Rosemount	Spill, Leak, Leach or Inject Release		
292	5412	Rosemount Middle School LUST		Rosemount	Spill, Leak, Leach or Inject Release		
293	5412	Rosemount Middle School LUST		Rosemount	Spill, Leak, Leach or Inject Release		
294	5421	Ratzlaff Service LUST		Rosemount	Spill, Leak, Leach or Inject Release		
295	5419	Parking Lot LUST		Rosemount	Spill, Leak, Leach or Inject Release		
296	5414	McMenomy Farm LUST		Rosemount	Spill, Leak, Leach or Inject Release		
297	5414	McMenomy Farm LUST		Rosemount	Spill, Leak, Leach or Inject Release		
298	5424	Former Brockway Glass LUST		Rosemount	Spill, Leak, Leach or Inject Release		
299	5058	Concrete Slab & Foundation Disposal		Empire Township	Household or Farm Dump		
300	5142	Former Murgis Service Station		Rosemount	Spill, Leak, Leach or Inject Release		
301	5178	Rosemount National Guard Armory Disposals		Rosemount	Hazardous Waste Disposal		
302	5202	Ag Research Center LUST		Rosemount	Spill, Leak, Leach or Inject Release		
303	5202	Ag Research Center LUST		Rosemount	Spill, Leak, Leach or Inject Release		
304	5124	KQRS MAC Contaminated Soils Disposal		Empire Township			
305	5124	KQRS MAC Contaminated Soils Disposal		Empire Township			
306	5179	Hedburg Burning and Disposal		Empire Township			
307	5046	Lange Gas Equipment Co. Disposals		Rosemount	Industrial Waste		
308	5046	Lange Gas Equipment Co. Disposals		Rosemount	Industrial Waste		
309	5094	Williams Energy Disposals		Rosemount	Industrial Waste		
310	5094	Williams Energy Disposals		Rosemount	Industrial Waste		
311	5094	Williams Energy Disposals		Rosemount	Industrial Waste		
312	5387	Brockway Glass WWTP Disposals		Rosemount	Industrial Waste		
313	5388	Brockway Glass and Golf Course Disposals		Rosemount	Industrial Waste Disposal		
314	3040	Pesticide Disposals		Apple Valley	Agricultural Disposal		
315	3184	Model Stone Cement & Asphalt Dumps		Apple Valley	Industrial Waste Disposal		
316	5080	Star Radio Facility LUST		Empire Township	Spill, Leak, Leach or Inject Release		
317	5124	KQRS MAC Contaminated Soils Disposal		Empire Township			
318	5080	Star Radio Facility LUST		Empire Township	Spill, Leak, Leach or Inject Release		
319	5124	KQRS MAC Contaminated Soils Disposal		Empire Township			
320	5080	Star Radio Facility LUST		Empire Township	Spill, Leak, Leach or Inject Release		
321	5179	Hedburg Burning and Disposal		Empire Township			
322	5039	Rosemount South Dump		Rosemount	Large, Unilimited Variety		
323	5141	Rosemount Demolition		Rosemount	Regulated Waste Facility		
324	5039	Rosemount South Dump		Rosemount	Large, Unilimited Variety		
325	5142	Former Murgis Service Station		Rosemount	Spill, Leak, Leach or Inject Release		
326	5141	Rosemount Demolition		Rosemount	Regulated Waste Facility		
327	5142	Former Murgis Service Station		Rosemount	Spill, Leak, Leach or Inject Release		
328	5145	CP Rail Crow and Crow Ready Mix disposals		Rosemount	Large, Unilimited Variety		
329	5172	Dakota Equipment Repair		Rosemount	Hazardous Waste Disposal		
330	5097	Gas Supply Lead Paint Disposal		Rosemount	Industrial Waste Disposal		
331	5046	Lange Gas Equipment Co. Disposals		Rosemount	Industrial Waste		
332	5098	Demolished Building Rosemount		Rosemount	Large, Unilimited Variety		
333	5040	Hampton Development Corporation		Rosemount	Household or Farm Dump		
334	5002	Strese Oil Company & Rosemount Ice Company		Rosemount	Hazardous Waste Disposal		
335	5003	Strese Oil Co LUST		Rosemount	Spill, Leak, Leach or Inject Release		
336	5120	GOW Hazardous Waste Burn Pit		Rosemount	Hazardous Waste Disposal		

TABLE 1: POTENTIAL CONTAMINANT SOURCE INVENTORY - FALL 2011

Number	MPCA ID	Name	Address	City	Activity	Status	Vulnerability
337	5996	Navy Reserve Intell Area 10 LUST		Rosemount	Spill, Leak, Leach or Inject Release		
338	5120	GOW Hazardous Waste Burn Pit		Rosemount	Hazardous Waste Disposal		
339	5996	Navy Reserve Intell Area 10 LUST		Rosemount	Spill, Leak, Leach or Inject Release		
340	5112	Rail Spur Incidental Disposals		Rosemount	Industrial Waste Disposal		
341	5139	Railroad Tie Disposal		Rosemount	Industrial Waste Disposal		
342	3184	Model Stone Cement & Asphalt Dumps		Apple Valley	Industrial Waste Disposal		
343	3183	Model Stone & McNamara Tanks, Leaks & Spills		Apple Valley	Spill, Leak, Leach or Inject Release		
344	5058	Concrete Slab & Foundation Disposal		Empire Township	Household or Farm Dump		
345	5124	KQRS MAC Contaminated Soils Disposal		Empire Township			
346	3040	Pesticide Disposals		Apple Valley	Agricultural Disposal		
347	3184	Model Stone Cement & Asphalt Dumps		Apple Valley	Industrial Waste Disposal		
348	3183	Model Stone & McNamara Tanks, Leaks & Spills		Apple Valley	Spill, Leak, Leach or Inject Release		
349	5039	Rosemount South Dump		Rosemount	Large, Unilimited Variety		
350	5141	Rosemount Demolition		Rosemount	Regulated Waste Facility		
351	5142	Former Murgis Service Station		Rosemount	Spill, Leak, Leach or Inject Release		
352	3184	Model Stone Cement & Asphalt Dumps		Apple Valley	Industrial Waste Disposal		
353	3183	Model Stone & McNamara Tanks, Leaks & Spills		Apple Valley	Spill, Leak, Leach or Inject Release		
354	3182	Model Stone Shop Drain Disposal		Apple Valley	Hazardous Waste Disposal		

Table 2

Average Precipitation 2005-2009
Rosemount Agricultural Experiment Station
(COOP ID 217107)

Month	Precipitation (inches)	Year	Precipitation (inches)
Jan	1.02	2005 ¹	24.65
Feb	1.01	2006	27.53
Mar	2.00	2007	36.79
Apr	2.91	2008	27.74
May	3.17	2009	29.21
Jun	3.49		
Jul	2.38		
Aug	6.43		
Sep	2.77		
Oct	3.31		
Nov	1.01		
Dec	1.77		

¹ Missing data for January to March, and August