

SECTION I

I. EXECUTIVE SUMMARY

This Comprehensive Surface Water Management Plan for the City of Rosemount has been developed to meet local watershed management planning requirements of the Metropolitan Surface Water Management Act and Board of Water and Soil Resources Rules 8410. It has also been developed to be in conformance with the requirements of the local Watershed District and Watershed Management Organizations, Metropolitan Council requirements, and applicable State and Federal laws. This document and its referenced literature is intended to provide a comprehensive inventory of pertinent water resource related information that affects the City and management of those resources.

Section II

Section II of this plan provides an introduction and purpose. The Surface Water Management Plan has been developed to provide the City with direction concerning the administration and implementation of water resource activities within the City. This plan is intended to meet the requirements for a local surface water management plan as required by the Metropolitan Surface Water Management Act and be in conformance with Board of Water and Soil Resources (BWSR) Rules Chapter 8410. This section also lists the personnel contacts involved in the assistance and implementation of this plan, including the staff from the Vermillion River Watershed Joint Powers Board and Staff from the Dakota County SWCD.

Section III

Section III of this plan provides an inventory of land and water resources within the City including a general description and summary of data related to precipitation, geology, topography, flood problem areas, existing flood insurance studies, water quality, water management ordinances, surface and ground water appropriations, ground water, soils, land use, public utilities services, public areas for water-based recreation and access, fish and wildlife habitat, unique features, scenic areas and pollutant source locations within the City. A number of maps were also developed as part of the Plan to assist in summarizing this information.

Section IV

Section IV of this Surface Water Management Plan provides an assessment of the existing and potential water resource related concerns within the City. These concerns were identified based on an analysis of the land and resource data collected as part of this plan preparation and through public input. A number of problem areas were identified through the plan development process. This section summarizes the problems and corrective actions that were identified through this process. The problems/key issues identified below, which have a specific geographic location, have been identified in **Figure III-8**. City-wide policy issues have been also identified in this section, but were not included in **Figure III-8**.

1. Develop agreement to construct regional ponding at Flint Hills Resources.
2. Need for lateral drainage improvements in Rosemount along 120th Street.
3. Need to construct overflow system to east within the CSAH 42/Akron AUAR area.
4. Need for lake level monitoring on Keegan Lake.

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5. Obtain approval for overflow to Mississippi River.
6. Need for lift station outlet from Shannon Pond and two options for constructing overflow from Shannon Pond to trunk system.
7. Need for overflow of basins near CR 38 to south into Marcotte Pond.
8. Need for overflow to south into Keegan Lake.
9. Need for pumped overflow at Wachter Pond.
10. Need for pumped overflow at Business Park Pond.
11. Limited freeboard and pump capacity at basin adjacent to Rosemount High School.
12. Need to address overall drainage issues at Umore.
13. Complete agreement with MCES to discharge into interceptor.
14. Need for overflow from Erickson Pond
15. Need to consider potential of redirecting flow (small subwatershed in southeast corner of City) into overflow trunk system
16. Need to pursue intercommunity agreement with the City of Coates.

Section V

Section V of this plan outlines water resource management related goals and policies of the City. Goals and policies have been developed for the City concerning water quantity, water quality, recreation, fish and wildlife management, enhancement of public participation, information and education, public ditch system, ground water, wetlands, and erosion.

Section VI

Section VI outlines implementation priorities and develops an implementation program. This section contains a prioritized listing of the studies, programs and capital improvements that have been identified as necessary to respond to the water resource needs within the City.

The implementation period identified within this report for the programs, studies and capital improvements is for 10 years or more from the adoption of this plan. Many of the improvements noted in the plan will most efficiently be implemented over time, as development occurs in the affected areas. This plan is to be used for planning purposes only. Summaries of cost estimates for proposed projects, programs, and studies are also provided in **Tables VI-1** through **VI-3**.

Section VII

Section VII discusses the financial considerations of implementing the proposed regulatory controls, programs and improvements, which have been identified in this plan and their financial impact on the City. Funding sources available for implementing the policies and corrective actions identified within this plan are included. The plan indicates that the majority of funding for the policies and corrective actions will either be from the City's Storm Water Core Funds, Stormwater Utility Fund, developer's agreements, City

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General Fund, Outside Grant sources or local partners. Other possible funding sources for the implementation of this plan include special assessments and grant monies, which may be secured from various local, regional, County, State or Federal agencies.

Section VIII

Section VIII discusses the procedures to be followed in the event this Surface Water Management Plan is amended. Once this Surface Water Management Plan is approved, no significant changes to this plan can be facilitated without the approval of the proposed revisions by the Watershed Management Organizations and Districts within the City that are affected by the change. Significant changes to the plan shall be made known to the Mayor, City Council, City Staff, the Metropolitan Council, and the affected Watershed Management Organizations and Districts within the City.

Appendices

Appendices are included in the back of the plan and are summarized below. These documents are included because they provide supporting information to the main body of the plan.

Appendix A	Water Resource Related Agreements
Appendix B	Stormwater Model
Appendix C	Developer's Handout
Appendix D	Low Impact Development Policy Document and Infiltration Design Options
Appendix E	NURP Design Guidelines
Appendix F	Wetland Management Plan
Appendix G	Shoreland and Floodplain Ordinance
Appendix H	Skimmer Detail
Appendix I	Pond Maintenance and Landscaping Information and Stormwater System Maintenance Plan
Appendix J	Erosion Control Ordinance
Appendix K	Shoreline Stabilization Guidelines
Appendix L	National Pollution Discharge Elimination System (NPDES) Information
Appendix M	Trunk Conveyance and Ponding Fee Report
Appendix N	DNR Water Appropriations Information
Appendix O	Zoning Map and Parks Map
Appendix P	Pollutant Source Information
Appendix Q	City Ordinances
Appendix R	VRWJPO Standards
Appendix S	Ecoregion Eutrophication Standards

This document is expected to be a 10-year Surface Water Management Plan, after which time this plan should be updated. However, if significant changes to the plan are deemed necessary prior to that date the City may revise this plan in its entirety.

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II. INTRODUCTION AND PURPOSE

A. **General**

This Surface Water Management Plan has been developed to provide the City with direction concerning the administration and implementation of water resource activities within the City. This plan is intended to meet the requirements for a local surface water management plan as required by the Metropolitan Surface Water Management Act and be in conformance with Board of Water and Soil Resources (BWSR) Rules Chapter 8410.

In addition to being in conformance with the above state law, this plan has also been developed to meet the needs, requirements, and direction outlined by the following list:

1. Vermillion River Watershed Joint Powers Organization
2. State and Federal laws regarding the need to secure a National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge permit
3. Metropolitan Council Water Resource Management Policy Plan

This plan incorporates the approaches and direction provided in the programs and documents listed above into a comprehensive plan that can be consistently applied across the City.

B. **Background, History and Approach of Stormwater Management in the City of Rosemount**

Surface water management within the City of Rosemount has been a significant issue over the past several decades due to the topography within the City, which is characterized by a number of deep depressions with no natural overflow out of the City. The following is a brief summary of some of the key highlights:

- In the 1980s, the City of Rosemount had a plan to construct lift station outlets for much of the City and discharge water to the south into the Vermillion River.
- The proposed outlet to the south was pursued until the mid-1990s, when the Metropolitan Council Environmental Services began to inquire about expansion of the Empire Wastewater Treatment Plant. Based on regional environmental concerns related to the trout stream designation of the Vermillion River, the MCES deemed it prudent to redirect treated effluent from the expanded Empire plant to the east, into the Mississippi River, rather than directly discharging effluent into the Vermillion River.
- At approximately the same time that the MCES outlet discussions were ongoing, the City of Rosemount began to re-examine additional options related to providing an overflow from the City.

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After much analysis, the City developed the proposed overflow project to the Mississippi River identified in this plan, which includes a draft proposed 80 year lease agreement with MCES to construct a temporary treated effluent outfall as part of the proposed MCES interceptor which will discharge water to the east into the Mississippi River. This approach identifies using the excess capacity within the MCES outfall system to allow for up to a 50 cfs capacity stormwater overflow. To utilize this small discharge rate, the City requires storage of runoff from the 100-year, 24-hour storm event for new development. For events with longer duration, a maximum peak stormwater discharge rate will be limited to 0.05 cfs/acre. It is important to note that these treatment areas do not utilize natural wetland areas to substitute for constructing stormwater ponds.

As development occurs, the City anticipates construction of a permanent stormwater trunk conveyance system to the east located adjacent or near the proposed MCES outfall route. This system would be designed to manage the discharge for the critical event limited to .05 cfs per acre from the upstream drainage area (approx. 800 cfs).

C. Personnel Contacts

To implement this plan, a coordinated water resource management approach must be used. This approach utilizes the services of staff personnel within the City and surrounding communities, as well as staff associated with the Watershed Management Organization having jurisdiction over areas within the City. The Watershed Management Organization having jurisdiction within the City are shown on **Figure II-1**.

The primary implementation responsibility will lie with the appropriate staff members at the City. Assistance from the surrounding municipalities and Watershed Management Organizations will also be expected. Outlined below are the names, addresses, telephone numbers, and website address for personnel having responsibilities for overseeing or implementing various aspects of the Plan.

Andy Brotzler, PE
City Engineer
City of Rosemount
2875 145th Street West
Rosemount, MN 55068

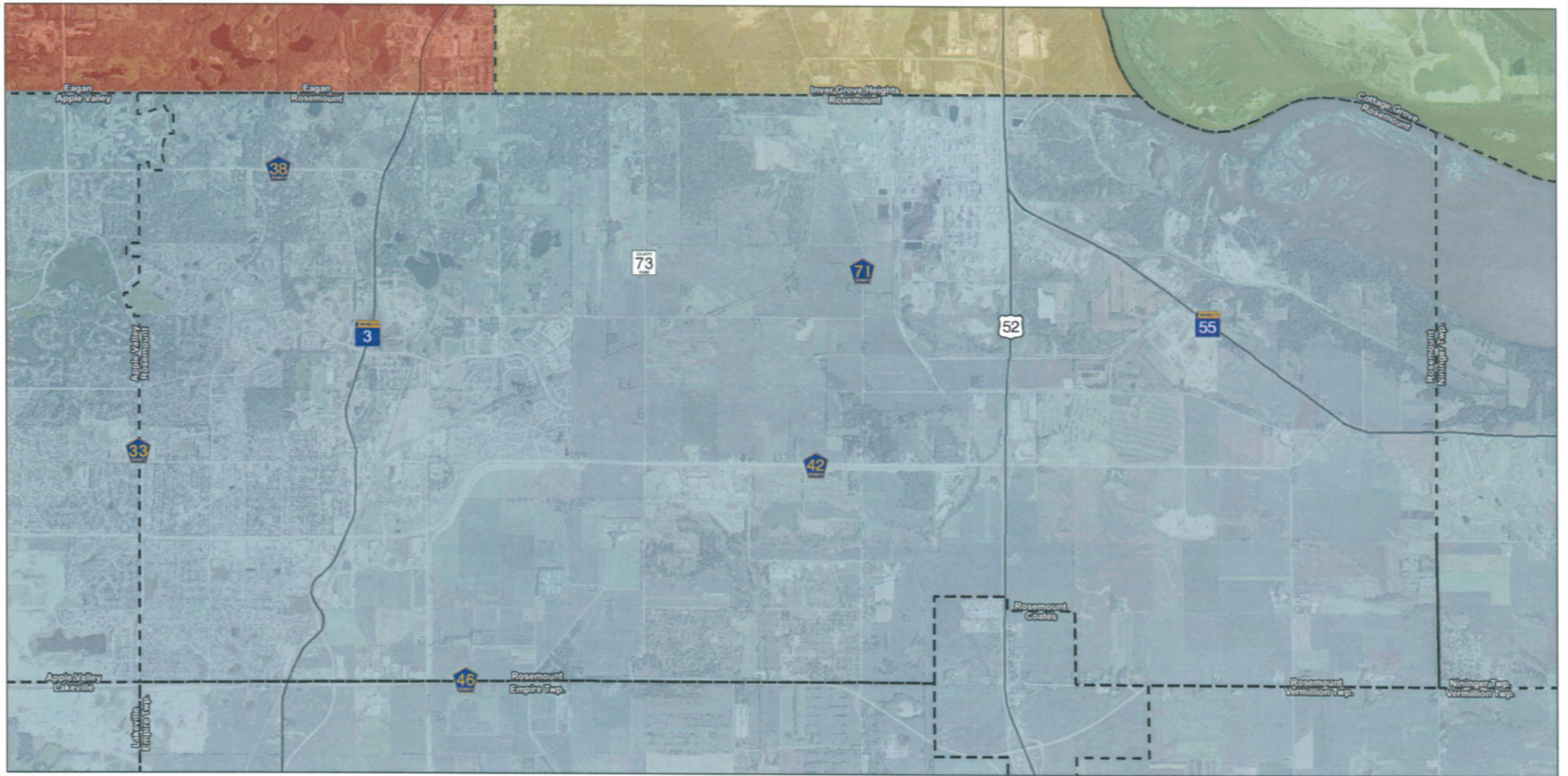
Water Resource Manager
Dakota County / Vermillion River Watershed Joint Powers Organization
14955 Galaxie Avenue
Apple Valley, MN 55124
(952) 891-7000
www.dakotacounty.us

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D. **Water Resource Related Agreements**

The City has entered into water resource-related agreements that govern in part how the City must manage its water resources. These agreements include agreements between the City and adjoining communities or agreements it may have with other governmental units or private parties. Listed below is a description of the water resource related agreements which the City has entered into. A copy of these agreements or appropriate portions thereof are included in **Appendix A**.

- Vermillion River Watershed Joint Powers Agreement : Established in 2003, the Vermillion River Watershed Joint Powers Board, has adopted the Joint Powers Agreement (**Appendix A**) with Scott County to manage the water management in the Vermillion River Watershed including the City of Rosemount.
- Agreement between City and Cities of Eagan, Apple Valley and Dakota County for downstream improvements in Lebanon Hills Regional Park and City of Eagan. – **Pending**
- Agreements between City and Dakota County/VRWJPO regarding partnership and collaboration on Lebanon Hills Drainage Projects. - **Pending**
- Agreement between Flint Hills Resources and City on construction of Regional Pond. - **Pending**



Source: Met Council

Legend

-  Corporate Boundary
-  Gun Club Lake Watershed Management Org.
-  Lower Mississippi River Watershed Management Org.
-  South Washington Watershed District
-  Vermillion River Watershed Joint Power Org.



Surface Water Management Plan

**Watershed Map
Figure II-1**

