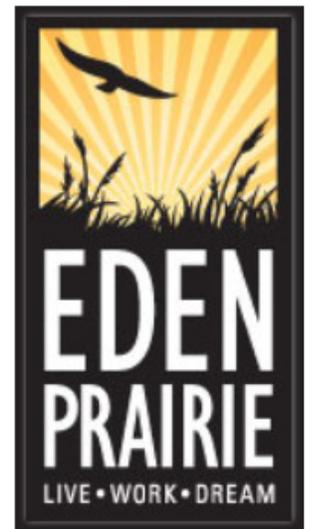


# MS4 Storm Water Pollution Prevention Plan



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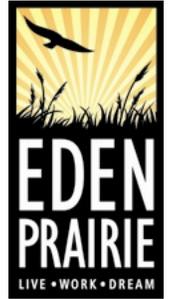
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# CITY OF EDEN PRAIRIE

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## **STORMWATER POLLUTION PREVENTION PLAN (SWPPP)**

**2013 - 2018**



December 2015

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**LIST OF ABBREVIATIONS/ACRONYMS**

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<b>Abbreviation</b>	<b>Definition</b>		<b>Abbreviation</b>	<b>Definition</b>
BMP	Best Management Practice (See IMP)		MPCA	Minnesota Pollution Control Agency
CAMP	Citizen-Assisted Monitoring Program		MS4	Municipal Separate Stormwater System
City	City of Eden Prairie		NPDES	National Pollution Discharge Elimination System
CWA	Clean Water Act		NPS	Non-Point Source
CWPMP	Comprehensive Wetland Protection and Management Plan		NURP	Nationwide Urban Runoff Program
DWSMA	Drinking Water Supply Management Area		NMCWD	Nine Mile Creek Watershed District
ERPs	Enforcement Response Procedures		OHWL	Ordinary High Water Level
EPA	Environmental Protection Agency		PCB	Polychlorinated biphenyls
GIS	Geographic Information System (ArcView™)		RPBCWD	Riley-Purgatory-Bluff Creek Watershed District
GP	General Permit		SWPPP	Storm Water Pollution Prevention Plan
HCD	Hennepin Conservation District		TMDL	Total Maximum Daily Load
IMP	Integrated Management Practice (see BMP)		TP	Total Phosphorus
IP	Implementation Plan		TSS	Total Suspended Solids
LDPU	Local Drainage Plan Update		UAA	Use Attainability Analysis
LMRWD	Lower Minnesota River Watershed District		USFWS	U. S. Fish and Wildlife Service
LWMP	Local Water Management Plan		WCA	Minnesota Wetland Conservation Act
MCM	Minimum Control Measure		WD	Watershed District
MDNR / DNR	Minnesota Department of Natural Resources		WHEP	Wetland Health Evaluation Program
MEP	Maximum Extent Practicable		WHPA	Wellhead Protection Area
Met Council	Metropolitan Council		WHPP	Wellhead Protection Plan
MN/Minn	Minnesota		WLA	Waste Load Allocation
MinRAM	Minnesota Routine Assessment Methodology for wetlands		WMO	Watershed Management Organization

## **1.0 INTRODUCTION**

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Water quantity and water quality are both important considerations in our City during both development review and planning for the future. This Stormwater Pollution Prevention Plan (SWPPP) was developed to provide the City of Eden Prairie with information and direction regarding the implementation of water resource management activities within the City from 2013 to 2018. This document provides Best Management Practices (BMPs) that the City will use to meet these objectives.

### **1.1 PLAN PURPOSE**

The SWPPP was written to address concerns regarding potential deterioration of water quality due to pollutants transported through stormwater runoff to our lakes, creeks and wetlands. The Phase II National Pollution and Discharge Elimination System (NPDES) permitting process requires Municipal Separate Storm Sewer Systems (MS4s) in urbanized areas, such as the city of Eden Prairie, to file a Phase II NPDES permit with the Minnesota Pollution Control Agency (MPCA) which addresses how the City will regulate and manage stormwater discharges. Phase I of the United States Environmental Protection Agency (EPA) stormwater program was promulgated in 1990 under the Clean Water Act (CWA). Phase I addressed MS4s with populations of 100,000 or greater.

### **1.2 RELATIONSHIP TO OTHER CITY PLANS**

Four other water resource planning tools have been developed and are adopted as part of the SWPPP for the City.

#### *1.2.1 LOCAL DRAINAGE PLAN UPDATE (LDPU) - 1999*

The LDPU was an update of the 1970 Drainage Plan prepared by Barr Engineering Co. for Eden Prairie and includes stormwater modeling from a quantitative aspect.

#### *1.2.2 COMPREHENSIVE WETLAND PROTECTION AND MANAGEMENT PLAN (CWMP) - 1999*

The CWMP, required by Minn. Rules 8420.0650, provided an inventory of wetlands and other water bodies in Eden Prairie, an assessment of the wetland functions using the Minnesota Routine Assessment Method for Evaluating Wetland Functions (MinRAM, version 1.0), resulting public values for the water bodies and criteria for usage of water bodies for stormwater management based on these results.

#### *1.2.3 LOCAL WATER MANAGEMENT PLAN (LWMP) – 2015*

The LWMP provides an overall planning and management tools for water resources within the City of Eden Prairie, including site plan review guidelines and requirements. Many components from the LWMP were incorporated into the SWPPP.

#### **1.2.4 WELLHEAD PROTECTION PLAN (WHPP) – 2015**

The WHPP provides a planning and analysis guide for protection of the City’s wellhead protection area (WHPA); including from storm water drainage impacts.

### **1.3 RELATIONSHIP TO OTHER REGULATORY AGENCIES**

The SWPPP is intended to meet requirements outlined the EPA’s Phase II stormwater rules as well as provide a user-friendly tool for day-to-day management of the City’s stormwater system. The Phase II NPDES program is being administered by the MPCA.

### **1.4 MINIMUM CONTROL MEASURES (MCMs)**

The SWPPP contains the City’s plan to address the 6 Minimum Control Measures (MCMs) outlined in the Phase II NPDES permit requirements, which include:

1. Public Outreach and Education
2. Public Participation / Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post Construction Runoff Control
6. Pollution Prevention / Good Housekeeping

## 2.0 BACKGROUND

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The City of Eden Prairie is a suburb of Minneapolis and is located in the southwestern corner of the metropolitan area. The City includes 36 square miles of area and has a population of approximately 63,000 residents. The City currently has inventoried 736 wetlands, ponds, lakes and creek segments in 2015. The primary land use in the City is residential and much of the focus of the SWPPP is residential education and outreach. Following are items that the City evaluated during preparation of the SWPPP.

### 2.1 SELF ASSESSMENT

City staff assessed the proposed permit requirements, existing programs and proposed Best Management Practices for inclusion in the SWPPP. Following are some of the factors that were considered during the self-assessment phase.

- Sources of pollutants
- Sensitivity and uses of existing receiving waters
- Geology, hydrology and climate conditions
- Size of the community including existing and future development
- Implementation schedules and staff availability
- Financial implications
- Watershed characteristics

The actions taken to complete the self-assessment included the following.

- Review of existing ordinances.
- Review of existing stormwater pollution prevention policies and practices currently in use.
- Review of existing educational and training programs which provide information on water quality and stormwater pollution prevention issues.
- Review of existing Watershed District Use Attainability Analyses (UAAs) for lake water quality improvements as they are made available.
- Internal staff meetings to discuss the relationship between existing programs and proposed new programs to fulfill any gaps in meeting the required MCMs and to develop timelines for implementation.
- Selection of appropriate Best Management Practices.

City staff also considered the following non-stormwater discharges to determine whether they should be identified as significant contributors of pollutants to our stormwater system. They were not found to be significant.

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration

- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensation
- Irrigation water
- Springs
- Water from crawl space pumps
- Footing drains
- Lawn watering
- Individual residential car washing
- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool discharges
- Street wash water
- Discharge or flows from firefighting activities

## 2.2 FUNDING MECHANISM

The City of Eden Prairie has established a Stormwater Utility Fee that is assessed against utility bills. The City’s Stormwater Utility revenue is generated by fees according to land use. This information is summarized below. The stormwater utility fee will be the primary funding source for the Implementation Plan (IP), as identified in the City’s Local Water Management Plan (LWMP). The chart below summarizes the 2015 collection information.

<b>Property Type</b>	<b>Quarterly Collection Rate</b>
Airport/Landfill (per acre)	\$7.49
Commercial/Office (per acre)	\$38.50
Industrial (per acre)	\$30.13
Institutions (per acre)	\$34.15
Parks/Open Space/Golf (per acre)	\$12.60
Single Family/Multi-Family Homes (per each)	\$9.10
Undeveloped Lands (per acre)	\$30.15

The City evaluated the Stormwater Utility Fee collection rate in relation to proposed expenditures for the SWPPP as part of the Local Water Management Plan (LWMP). The City will evaluate the need for fee increases to fully fund the stormwater utility program as the Stormwater Pollution Prevention Program (SWPPP) goes forward.

## **2.3 MUNICIPAL FACILITIES**

All City operations are covered under this SWPPP and its associated General Storm Water Permit. One Standard Industrial Classification (SIC) code has been assigned for the general municipal operations, SIC 9199. Facilities covered by this permit are summarized in the following sections. SIC codes for individual operations, such as police and fire operations, are also noted below. None of these SIC codes are listed as requiring a General Storm Water Permit for Industrial Activity. Each of these facilities was evaluated during the self-assessment phase.

### *2.3.1 CITY CENTER*

The City Center is located at 8080 Mitchell Road. All general municipal operations and administrative functions are operated out of the City Center. In addition, the police department operates out of the City Center.

### *2.3.2 WATER TREATMENT PLANT*

The Water Treatment Plant and Utility operations are located at 14100 Technology Drive. The Water Treatment Plant treats and distributes water for domestic, commercial and industrial use within the City.

### *2.3.3 FLEET SERVICES / STREET MAINTENANCE / PARKS MAINTENANCE*

General fleet services, including vehicle maintenance equipment and personnel, for these operations are located at 15150 Technology Drive.

The City's equipment and seasonal storage areas, including road salt, are located at the City's outside storage area at 9811 Flying Cloud Drive.

### *2.3.4 FIRE DIVISION*

The Fire Division operates fire stations at the following addresses.

- 14800 Scenic Heights Road
- 12100 Sunnybrook Road
- 7350 Eden Prairie Road
- 17920 Linwood Court

### *2.3.5 MISCELLANEOUS OPERATIONS*

The following are miscellaneous operations located outside of the City Center.

- Community Center – 16700 Valley View Road
- Senior Center – 8950 Eden Prairie Road
- Outdoor Center – 13765 Staring Lake Road
- Liquor Operations – 16502 W. 78<sup>th</sup> Street, 8018 Den Road and 950 Prairie Center Drive.

### **3.0 REGULATORY FRAMEWORK**

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The City of Eden Prairie is required to develop, implement and enforce a Storm Water Pollution Prevention Program to reduce the discharge of pollutants from our stormwater system to protect water quality and satisfy Federal Clean Water Act requirements. The program includes a Storm Water Pollution Prevention Plan (SWPPP) that includes programs, policies and Best Management Practices (BMPs) that will be used to reduce the discharge of pollutants from the City's municipal storm sewer system to the Maximum Extent Practicable (MEP). The municipal stormwater system will be managed in accordance with Federal Clean Water Act requirements and the terms of the State's storm water permit program. Following are additional measures which were considered for development of the City's SWPPP.

#### **3.1 CURRENT CITY NATURAL RESOURCE PROTECTION MEASURES**

Protection of the City's water resources has been a priority throughout the City's development history. Existing water resource related policies and local controls (City Code sections) include:

- Shoreland Management Ordinance (Section 11.50)
- Maintenance of Herbaceous Vegetation (Native Plant Ordinance) (Section 9.71)
- Land Alteration, Tree Preservation and Stormwater Management Regulations (Section 11.55)
- Sale of Lawn Fertilizer Regulations (Section 9.15)
- Preservation of Wetland and Woodland Areas Ordinance (Section 11.03)
- Standards for the Protection of Wetlands (Section 11.51)
- Sloped Ground Development and Regulations (Section 11.60)

These ordinances and policies have provided the City and private development sector with the means to protect the City's natural resources through limiting filling of wetlands; use of setbacks; steep slope and shoreline buffers; and best management practices.

#### **3.2 SECTION 303 (D) (IMPAIRED WATERS) LISTINGS & TOTAL MAXIMUM DAILY LOAD (TMDL) PROGRAM**

Section 303(d) of the Federal Clean Water Act requires states to publish an updated listing of impaired waters every two years. These are waterways that are not meeting their designated uses. For example there may be impacts to swimming due to excess fecal coliform or nutrients or to aquatic life due to turbidity or low oxygen levels. Minnesota's current list includes 2,452 areas that are considered impaired. The listings are proposed by the Minnesota Pollution Control Agency (MPCA) and approved by the Environmental Protection Agency (EPA).

##### **3.2.1 IMPAIRED WATERS**

In Eden Prairie, the stormwater system includes discharges to seven impaired waters within the City limits. The water resources on this list, and the impairments related to stormwater impacts, include:

- Bluff Creek, from the headwaters to the Minnesota River (flowage from the City of Chanhassen through the Minnesota River floodplain) – turbidity

- Mitchell Lake – excess nutrients
- Red Rock Lake – excess nutrients
- Riley Lake – excess nutrients
- Staring Lake – excess nutrients
- Minnesota River – fecal coliform, low oxygen and turbidity
- Riley Creek, from Riley Lake to the Minnesota River – turbidity

A map showing the impaired waters within the City and current information on the stormwater system around these areas are shown on Figure 1 at the end of this document, Page 19.

Bryant, Red Rock, Riley, Round and Staring Lakes are listed for the pollutant mercury and the Minnesota River is listed for the pollutants mercury and PCBs which impair aquatic consumption, however they are not included on the map as they are not stormwater-related issues.

The City has been working with the Nine Mile Creek and Riley-Purgatory-Bluff Creek Watershed Districts on Use Attainability Analyses (UAAs) as they are completed to address concerns related to impaired waters. Section 4.4 discusses this process and the proposed work items in more detail. The UAAs will be reviewed as they are completed to determine how the City can work with the Watershed Districts to reduce discharges to these waters.

The SWPPP takes into account the current listings and the UAAs completed for these waters. The BMPs are intended to reduce stormwater discharges that may cause further impairment to these water bodies. No additional changes to the SWPPP or BMPs are proposed.

### 3.2.2 *IMPAIRED WATERS REVIEW PROCESS*

The City will review the updated Impaired Waters Listings as they become available. This will include the following actions:

- Review the 303(d) List as they are published for additions, modifications or deletions
- Identify stormwater discharges to any new or modified impaired waters on the list
- Determine subwatershed areas which may drain to the impaired water
- Evaluate hydrology, land use and other characteristics of the subwatershed areas identified.
- Determine if an amendment to the SWPPP is required to address the new or modified listings.

The UAAs include analysis of stormwater discharges, subwatershed areas, hydrology and land use characteristics. This data will be reviewed as it is forwarded to the City by the Watershed Districts.

If changes to the SWPPP or BMPs are needed after review of the Impaired Waters Listings or UAAs, they will be incorporated into the annual report submitted the year following the 303(d) Listing or UAA is published.

### 3.2.3 *TOTAL MAXIMUM DAILY LOAD (TMDL) IMPLEMENTATION PLANS*

There is an approved TMDL plan for Nine Mile Creek. The impairment is for excess chloride. A waste load allocation (WLA) has been assigned to the city. Currently the city is meeting its WLA

for chloride. This SWPPP does not require further modification at this time due to TMDL planning. When future TMDL implementation plans are developed and TMDL waste load allocations are approved, the City will evaluate the SWPPP and BMPs to determine if additional measures need to be incorporated to meet the goals and objectives developed for the TMDL plans. Determinations of whether changes are required will be made in conjunction with the annual report submitted the year following the 303(d) Listing is published.

## **4.0 AGENCY RESOURCES**

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Several agencies sponsor programs for local stormwater or water resource management. The City will continue to evaluate and implement these programs or available resources as practical to meet local needs. Listed below are some of the programs and resources that the City has available as a resource, are currently utilizing or are considering participation in.

### **4.1 METROPOLITAN COUNCIL (MET COUNCIL)**

The Met Council provides a range of programs for management of water resources in the Metro area. Several of Met Council's programs were considered during development of the City's Minimum Control Measures, including the following.

- Urban Small Sites Best Management Practice (BMP) Manual – The Met Council developed a BMP manual to provide information on tools and techniques to assist municipalities in guiding development and redevelopment. Details on a variety of BMPs aimed at managing stormwater pollution were provided.
- Citizen-Assisted Monitoring Program (CAMP) – The City currently works with the Met Council to solicit, train and monitor volunteers who collect data from area lakes. The information is collected to provide a more complete picture of the water quality of the region's lakes and to provide information to support local water management efforts. Currently Riley Lake and Mitchell Lake are included in this program.
- Metro Environment Partnership Grant Program – The purpose of this grant program is to improve the water quality of Metro Area lakes and rivers by reducing nonpoint source (NPS) pollution through education and implementation grants. The City will evaluate the grant program in relation to any proposed projects for NPS pollution reduction as needed.

### **4.2 MINNESOTA POLLUTION CONTROL AGENCY (MPCA)**

The MPCA operates several programs applicable to local storm water management planning. The MPCA monitors water quality, sets standards, and implements various controls. Following are programs and resources related to water quality.

- National Pollutant Discharge Elimination System (NPDES) - The MPCA manages the NPDES Phase II construction and industrial discharge permitting and the Phase II permitting for small municipal separate storm sewer systems (MS4s).
- Clean Water Act (CWA) / Total Maximum Daily Load (TMDL) - The MPCA implements the Clean Water Act that requires that states adopt water quality standards to protect waters of the state. The EPA and MPCA require preparation of Total Maximum Daily Load (TMDL) studies to identify the source of pollutants and plans for bringing the water resources into compliance.
- Minnesota Stormwater Manual – The MPCA published a Stormwater Manual that was created through the Minnesota Stormwater Steering Committee in November 2005. Since that time the manual has been updated and in 2012/2013 the manual was converted to an electronic web-based

format. The Manual provides a number of guidelines and Best Management Practices for management of stormwater.

### **4.3 HENNEPIN COUNTY ENVIRONMENTAL SERVICES DEPARTMENT**

The Hennepin County Environmental Services Department is developing water resource education measures that the City evaluated during development of the proposed Minimum Control Measures. The following program has been incorporated into the SWPPP:

- Wetland Health Evaluation Program (WHEP) – The WHEP or Wetland Stewardship Program was developed by the Hennepin Conservation District, Dakota County Environmental Education Program and the MPCA to evaluate and monitor wetland health in key wetlands within communities in the Metropolitan Area. Citizen volunteers are recruited to collect wetland data through invertebrate and vegetation sampling. The data can be used for a variety of results, including informing citizens and local decision-makers about the health of wetlands within their community and how wetlands may be impacted by changes in land use in the watershed for the wetlands.

### **4.4 WATERSHED DISTRICTS**

The Riley-Purgatory-Bluff Creek, Nine Mile Creek and Lower Minnesota River Watershed Districts are the Watershed Districts (WD) located in the City. Each has developed water resource management and evaluation programs. The Watershed Districts have collaborated with the City on a number of projects.

#### **4.4.1 USE ATTAINABILITY ANALYSES**

Use Attainability Analyses (UAAs) have been or are being developed by the Nine Mile Creek and Riley-Purgatory-Bluff Creek Watershed Districts for lakes in these Districts. It is anticipated that much of the data collected for the UAAs will provide background data for preparation of Total Maximum Daily Load (TMDL) plans, as needed.

Matching funds are available from the Districts for projects identified within the UAAs. To utilize these funds, the City petitions the Watershed District for projects identified within the UAAs which will improve water quality. The City has currently petitioned for water quality improvement projects for the following lakes.

- Anderson Lake Northwest
- Anderson Lake Southwest
- Birch Island Lake
- Bryant Lake
- Mitchell Lake
- Rice Marsh Lake
- Riley Lake
- Round Lake

Work has been approved for Rice Marsh Lake, Riley Lake, Birch Island Lake and Bryant Lake and some of the project work began in 2006. Projects included in the petitions are items such as stormwater treatment pond improvements, stormwater pond construction, alum treatments, water level restoration, invasive species treatment and temporary drawdowns for water quality improvements.

As projects are completed, the City will evaluate the progress and success of proposed work items and determine if the SWPPP or BMPs need to be revised to meet the water quality goals of the proposed projects. Determinations of whether changes are required will be made in conjunction with the annual report submitted the year following completion of the petitioned work.

## 5.0 BEST MANAGEMENT PRACTICES

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The six (6) Minimum Control Measures outlined in the Phase II NPDES permit requirements will be addressed by the City through a variety of educational measures, training programs and ordinances and policies. The proposed methods of meeting these MCMs are summarized below. The individual measures, including implementation schedules, are included on the BMP Summary Sheets in the Appendix. Records generated for the BMPs will be kept for at least three (3) years beyond the term of the permit.

### 5.1 MINIMUM CONTROL MEASURE 1 – PUBLIC EDUCATION AND OUTREACH

A number of public education opportunities exist within the City. These opportunities will be developed into measures which would include stormwater pollution prevention education for residents, local businesses and employees. The following are included in the SWPPP.

- City Newsletter – The City will include stormwater related articles in the City Living Green or Life in the Prairie Newsletters a minimum of twice annually.
- Website – The City’s website will continue to provide information on stormwater pollution prevention as well as to include a copy of the SWPPP for review.
- City Council Presentation – Information regarding the BMPs undertaken each year will be summarized and presented to the Council on an annual basis.
- Environmental Event – The City will hold an environmental event or workshop annually which will include information on water quality related topics such as stormwater pollution prevention. Future events would be coordinated with other groups such as the Chamber of Commerce or Watershed Districts as resources and time allows.
- Environmental Multi-Media Productions – The City will continue to utilize existing environmental videos and other multi-media productions for education on water resources and water quality topics. The use of these productions will be evaluated and the need for new ones will be evaluated annually during the permit period.
- Environmental Learning Center – The City’s Environmental Learning Center is a tool used by the City to educate school age children on wise management of water resources. The City will continue to collaborate with local school districts in the future to operate the Center and provide environmental education.
- New Resident Packets – The City plans to continue distributing informational packets to new residents as they come in to homestead their properties. The information provided could include items such as a recent *Living Green* publication, Hennepin County Drop-Off Facility brochures, waste disposal company options and/or general recycling information. New information for enclosure in the packet will be considered as new ordinances or policies are developed.
- Education Programs – Education on information related to the Minimum Control Measures for Illicit Discharge and Detection, Construction Site Runoff Control, Post-Construction Stormwater Management and Pollution Prevention and Good Housekeeping for Municipal Operations will be developed and established. This could include developing educational brochures, posting information on the City’s web site, meeting with staff or contractors, promoting how residents

and employees can report problems, providing educational handouts for volunteer programs, or others. The types of educational measures will be evaluated and adjusted annually as needed.

## **5.2 MINIMUM CONTROL MEASURE 2 – PUBLIC PARTICIPATION / INVOLVEMENT**

Public involvement has been important within the City and will be continued in the future. The intent of this measure is to provide opportunities for citizens to participate in program development and implementation. Programs which the City plans to utilize to meet these requirements include the following.

- Storm Drain Labeling Program – The City has developed a number of storm drain marking kits that are made available to the community for storm drain marking projects. Participants have included scout troops as well as neighborhood groups. To date a number of parks and neighborhoods have been marked with stencils or markers.
- Wetland Health Evaluation Program (WHEP) – The City will continue to be involved in providing laboratory space and advertising for WHEP. The program will be reevaluated during 2017 to determine if it should be continued.
- Annual Park Clean Up Event – The City Parks Department plans to continue to provide a volunteer opportunity for local groups to participate in cleaning up waste materials from our park and trail system. The Event is typically held on the third Saturday of April.
- Annual Public Meeting – One annual meeting will be held to distribute information regarding stormwater pollution prevention programs ongoing within the City and to allow the community to provide comments or suggestions for the continuing success of the SWPPP.
- Conservation Commission – The Commission was established in April 2006 to provide input to the City Council on issues such as environmental education, water quality, energy and water conservation, and solid waste management.
- Citizen-Assisted Monitoring Program (CAMP) – Volunteers can monitor the health of selected lakes as part of this Metropolitan Council program.
- Adopt a Street / Adopt a Storm Drain Program – Requests from citizens who want to help keep City streets and storm drains free of litter can be accommodated.

## **5.3 MINIMUM CONTROL MEASURE 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION**

One requirement of a SWPPP is development and implementation of a plan to detect and eliminate illicit discharges to the City's storm sewer system. These measures will tie in with the public education MCM as a key component is education of the public about the problems associated with improper disposal of wastes which drain through storm water runoff towards our lakes, wetlands, ponds and creeks.

- Storm Sewer System Map – A Storm Sewer System map was completed for the Local Drainage Plan Update (LDPU) in 1999. This map was updated to include locations of storm sewer lines, including pipes 12 inches in diameter and larger. Structural pollution control devices, outfalls and other discharge points are mapped within public properties and right-of-ways. The existing and new information for the system will be evaluated and updated as needed to implement a map

that will be in compliance with the NPDES requirements. The map data was updated to include wellhead protection information in relation to stormwater management.

- Illicit Discharge Ordinance / Detection Program – An ordinance to prohibit non-stormwater discharge into storm sewer systems was completed per the permit requirements. Programs to detect and stop illegal and/or improper connections to the storm drainage system, illicit discharges and illegal dumping will be developed as needed.
- Illegal Dumping Detection Program – The City Parks Department will continue to monitor known dumping areas within the City for illegal dumping activities. A Hotline and the See Click Fix app are available to residents to report suspected dumping activities.
- Annual City Clean Up Event – The City will continue to provide an annual event where residents can bring in items for disposal that are typically not picked up by local waste haulers. This would include yard waste, furniture, scrap metal, carpet, building materials, appliances and electronics. This event is typically held in June each year.
- Enforcement Response Procedures (ERPs) – Procedures have been developed to help the City enforce and achieve compliance with the ordinances when stormwater violations are discovered.

#### **5.4 MINIMUM CONTROL MEASURE 4 – CONSTRUCTION SITE RUNOFF CONTROL**

A program to detect and enforce erosion and sediment control for construction activities that impact one (1) acre or more of land is complete. Measures that were included were site plan review, inspection of construction sites, pre-construction meetings (for sites requiring a Land Alteration Permit), and a process to report problems. Each of these are addressed on the individual BMP Summary Sheets.

- Construction Site Runoff Ordinance / Program – An ordinance to address construction site stormwater runoff control and enforcement was completed in 2005. A program to review construction site control measures has been developed to conform to the ordinance. Construction site inspection and enforcement procedures have also been developed.

#### **5.5 MINIMUM CONTROL MEASURE 5 – POST CONSTRUCTION RUNOFF CONTROL**

A plan to address discharges of post-construction stormwater runoff from new development and redevelopment sites was included in the stormwater management ordinance required in MCM 4.

- Post-Construction Runoff Ordinance / Program - The ordinance for construction site stormwater runoff control included provisions to address post-construction site stormwater runoff. This included long-term maintenance and repair requirements for private stormwater control structures that are not under drainage and utility easements.
- BMP / IMP Operation and Maintenance – An inspection program for BMPs and IMPs installed and maintained by the City will be developed as needed. The City will also evaluate the need for maintenance agreements or other measures required to ensure proper function of BMPs or IMPs on private property beyond existing City Code requirements.

## **5.6 MINIMUM CONTROL MEASURE 6 – POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

Current programs to prevent or reduce pollutant runoff from municipal operations will be evaluated. Municipal staff training on pollution prevention measures and techniques will be a component of this program. Operations which will be evaluated for inclusion in this program will include items such as street sweeping; pesticide, herbicide and fertilizer usage; street salt storage and usage; and catch-basin cleaning.

- Storm Sewer Inspection – A rotating inspection program will be established and implemented annually to inspect and evaluate known outfalls, sediment basins, ponds and pollution control devices for areas that are either City owned or under an existing drainage and utility easement. Areas which are not under existing drainage and utility easements will be evaluated and maintenance needs will be determined under the guidelines established in the City’s stormwater management ordinance. Cleaning and repair programs will be established as needed based upon the results of the inspection program and available financial resources.
- Stockpile, Storage and Material Handling Area Inspection – An inspection program will be implemented to monitor City-owned and operated areas. Each area will be inspected quarterly. This would include exterior or exposed storages for items such as road salt, gravel, sand, wood chips, street sweepings or agricultural products.
- Pond Inventory & Maintenance Assessment – Procedures and a schedule will be developed to determine the TSS and TP treatment effectiveness of all City owned/operated ponds constructed and used for the collection and treatment of stormwater.
- Facility and Operations BMP Plan - A plan to prioritize activities and provide BMPs for inventoried facilities and municipal operations where needed to the maximum extent practicable (MEP). The Plan will consider the source of pollutants and the sensitivity of receiving waters. BMPs will be developed to prevent or reduce pollutants in stormwater discharges of all inventoried facilities.

## **6.0 EVALUATING, RECORDKEEPING & REPORTING**

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The SWPPP must include a process for evaluating, keeping records on and reporting the results of program compliance, BMP effectiveness and progress towards meeting measurable goals. This section outlines how the City will meet these requirements.

### **6.1 RECORD KEEPING / PUBLIC ACCESS**

All records required by the NPDES permit will be maintained for a minimum of three (3) years beyond the term of the permit. For this permit cycle, that would be three years after 2018. Records which are kept would be provided to the Commissioner on request.

The records, including the SWPPP, will be made available to the public at reasonable times during regular business hours at the City Hall. The SWPPP can also be made available on the City's website at [www.edenprairie.org](http://www.edenprairie.org) (search keyword "stormwater"). Advance notice and charges may be involved for duplication of any record. Record availability may be limited by the confidentiality provision in 40 CFR 122.7.

The City is evaluating the ability to develop a Microsoft Access database and GIS system to map public data such as inlet, outlet, pipe and other stormwater management structure locations as the information is collected. Watershed District records will be added as the information is made available. Repair information will be entered into the database as needed for tracking of repairs. The information collected will be summarized in the annual reports as needed.

### **6.2 ANNUAL REPORTING**

An Annual Report will be submitted to the MPCA by June 30<sup>th</sup> of each calendar year, continuing for the duration of the permit as required. The Annual Report will summarize actions completed in the previous calendar year, including:

- Status of compliance with permit conditions
- Assessment of the appropriateness of the identified BMPs
- Progress made towards achieving the identified measurable goals
- Any changes in identified BMPs or measurable goals
- Notice of coordination with other entities to execute any BMPs or other obligations, if applicable

## 7.0 ADDITIONAL CONDITIONS AND REQUIREMENTS

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The Stormwater Pollution Prevention Program (SWPPP) has a set of additional requirements for drinking water source protection and nondegradation of waters within the City. These requirements are addressed below.

### 7.1 DISCHARGES AFFECTING SOURCE WATER PROTECTION AREAS

A Wellhead Protection Plan (WHPP) was completed for the City in March 2015 and has been approved by the Minnesota Department of Health. The WHPP included a Vulnerability Assessment; mapping of low, moderate and high vulnerability; and a series of Action Plans to protect the City's drinking water supply. The maps and Action Plan items are included in the WHPP and are available for review on the City's web site at [www.edenprairie.org](http://www.edenprairie.org) (search keyword "groundwater") or they may be viewed at the Engineering Department on request.

Examples of Action Plan objectives that coordinate with storm water management include:

- A. Land Use Evaluation
  - A2 Start a well sealing / abandonment program
  - A3 Locate Class V Wells
  - A8 Minimize potential groundwater contamination from surface water infiltration practices within the DWSMA
  - A9 Incorporation of NPDES Phase II requirements
- B. Public Education and Information
  - B1 Raise public awareness in highly vulnerable areas.
  - B2 Raise well owner awareness on surface water impacts to groundwater
- C. Monitoring and Data Collection
  - C1 Complete and maintain the Potential Contaminant Source Inventory
  - C2 Compile background information, including the storm water system mapping.
  - C3 Complete a file review for leak sites within the moderately and highly vulnerable areas in the DWSMA.

## **8.0 AMENDMENT OR MODIFICATION PROCEDURES**

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The Stormwater Pollution Prevention Plan (SWPPP) is intended to extend from August 1, 2013 to July 31, 2018. However, this document is intended to be a planning tool that will change as the City's needs change and may be amended as needed on an annual basis to meet City or regulatory goals.

### **8.1 PUBLIC REQUESTS FOR AMENDMENT**

Any person or persons either residing or having business within the City can request amendment proposals for consideration during the annual review process. Written requests for SWPPP amendment or modification must be submitted in writing to the City Manager. The request shall outline the need for the amendment or modification as well as any materials the City may need to consider before making its decision.

City staff will review the request and determine whether the requested amendment is warranted. Staff will consider the following options:

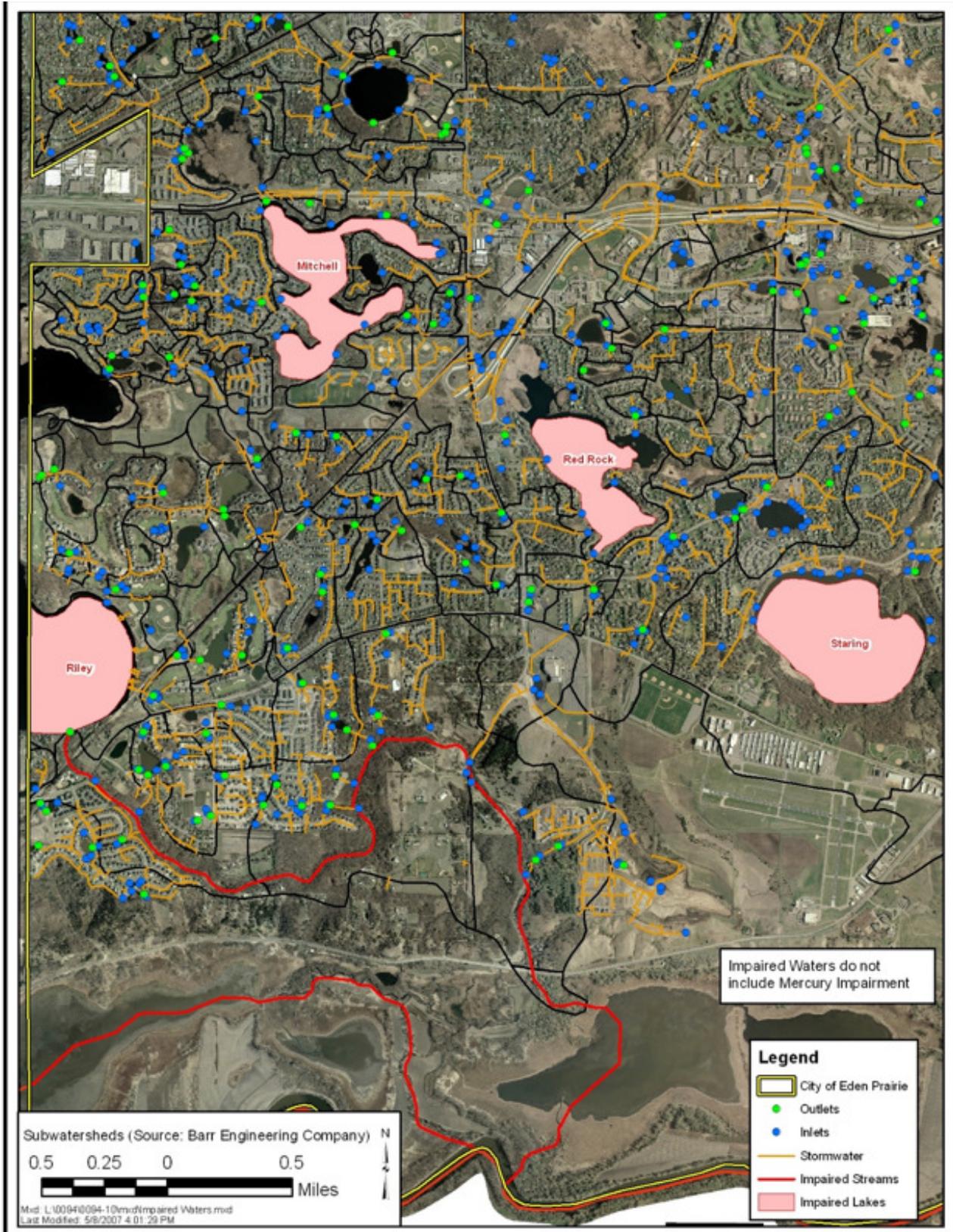
- Reject the request as unwarranted.
- Accept the request as a minor issue. Minor issues will be added to the Plan on an annual basis through staff amendment.
- Accept the request as a major issue. The request and the need for a public hearing will be evaluated by City staff and scheduled with the City Council for review and approval as needed. After review and/or public hearing before the City Council, the request will be approved or denied and if necessary, referred to the Commissioner for comment and approval.

### **8.2 STAFF AMENDMENTS OR MODIFICATIONS**

City staff shall review development changes and water management-related issues that have occurred on an annual basis. City Staff will incorporate minor amendments or modifications that would result in:

- Addition of new BMPs into the stormwater pollution prevention program
- Replacement of less effective BMPs with more effective alternatives that address the same or similar concerns.

All amendments or modifications will be forwarded to the Commissioner of the Minnesota Pollution Control Agency (MPCA) with the Annual Report.



**EDEN PRAIRIE NON DEGRADATION STUDY**

Eden Prairie Impaired Waters

**Wenck**  
 Wenck Associates, Inc. 1800 Pioneer Creek Center  
 Environmental Engineers Maple Plain, MN 55359-0429

MAY 2007

Figure 1



Minnesota Pollution Control Agency

520 Lafayette Road North
St. Paul, MN 55155-4194

MS4 SWPPP Application for Reauthorization

for the NPDES/SDS General Small Municipal Separate Storm Sewer System (MS4) Permit MNR040000 reissued with an effective date of August 1, 2013 Stormwater Pollution Prevention Program (SWPPP) Document

Doc Type: Permit Application

Instructions: This application is for authorization to discharge stormwater associated with Municipal Separate Storm Sewer Systems (MS4s) under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Permit Program. No fee is required with the submittal of this application. Please refer to "Example" for detailed instructions found on the Minnesota Pollution Control Agency (MPCA) MS4 website at http://www.pca.state.mn.us/ms4.

Submittal: This MS4 SWPPP Application for Reauthorization form must be submitted electronically via e-mail to the MPCA at ms4permitprogram.pca@state.mn.us from the person that is duly authorized to certify this form. All questions with an asterisk (\*) are required fields. All applications will be returned if required fields are not completed.

Questions: Contact Claudia Hochstein at 651-757-2881 or claudia.hochstein@state.mn.us, Dan Miller at 651-757-2246 or daniel.miller@state.mn.us, or call toll-free at 800-657-3864.

General Contact Information (\*Required fields)

MS4 Owner (with ownership or operational responsibility, or control of the MS4)

\*MS4 permittee name: City of Eden Prairie \*County: Hennepin
(city, county, municipality, government agency or other entity)
\*Mailing address: 8080 Mitchell Road
\*City: Eden Prairie \*State: MN \*Zip code: 55344
\*Phone (including area code): 952-949-8410 \*E-mail: rgetschow@edenprairie.org

MS4 General contact (with Stormwater Pollution Prevention Program [SWPPP] implementation responsibility)

\*Last name: Stovring \*First name: Leslie
(department head, MS4 coordinator, consultant, etc.)
\*Title: Environmental Coordinator
\*Mailing address: Engineering Dept., 8080 Mitchell Road
\*City: Eden Prairie \*State: MN \*Zip code: 55344
\*Phone (including area code): 952-949-8327 \*E-mail: lstovring@edenprairie.org

Preparer information (complete if SWPPP application is prepared by a party other than MS4 General contact)

Last name: Stovring First name: Leslie
(department head, MS4 coordinator, consultant, etc.)
Title: Environmental Coordinator
Mailing address: Engineering Dept., 8080 Mitchell Road
City: Eden Prairie State: MN Zip code: 55344
Phone (including area code): 952-949-8327 E-mail: lstovring@edenprairie.org

Verification

- 1. I seek to continue discharging stormwater associated with a small MS4 after the effective date of this Permit, and shall submit this MS4 SWPPP Application for Reauthorization form, in accordance with the schedule in Appendix A, Table 1, with the SWPPP document completed in accordance with the Permit (Part II.D.). [X] Yes
2. I have read and understand the NPDES/SDS MS4 General Permit and certify that we intend to comply with all requirements of the Permit. [X] Yes

## Certification (All fields are required)

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- Yes - I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted.

*I certify that based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.*

*I am aware that there are significant penalties for submitting false information, including the possibility of civil and criminal penalties.*

This certification is required by Minn. Stat. §§ 7001.0070 and 7001.0540. The authorized person with overall, MS4 legal responsibility must certify the application (principal executive officer or a ranking elected official).

By typing my name in the following box, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing my application.

Name: Rick Getschow

*(This document has been electronically signed)*

Title: City Manager Date (mm/dd/yyyy): December 27, 2013

Mailing address: 8080 Mitchell Road

City: Eden Prairie State: MN Zip code: 55344

Phone (including area code): 952-949-8300 E-mail: rgetschow@edenprairie.org

**Note:** The application will not be processed without certification.

# Stormwater Pollution Prevention Program Document

## I. Partnerships: (Part II.D.1)

- A. List the **regulated small MS4(s)** with which you have established a partnership in order to satisfy one or more requirements of this Permit. Indicate which Minimum Control Measure (MCM) requirements or other program components that each partnership helps to accomplish (List all that apply). Check the box below if you currently have no established partnerships with other regulated MS4s. If you have more than five partnerships, hit the tab key after the last line to generate a new row.

No partnerships with regulated small MS4s

Name and description of partnership	MCM/Other permit requirements involved

- B. If you have additional information that you would like to communicate about your partnerships with other regulated small MS4(s), provide it in the space below, or include an attachment to the SWPPP Document, with the following file naming convention: *MS4NameHere\_Partnerships*.

*Hennepin County Environmental Services - Wetland Health Evaluation Program (WHEP) - Participate annually as volunteers and program funding are available.*

*Metropolitan Council Environmental Services - Citizen Assisted Monitoring Program (CAMP) - Participate annually as volunteers and program funding are available*

## II. Description of Regulatory Mechanisms: (Part II.D.2)

### Illicit discharges

- A. Do you have a regulatory mechanism(s) that effectively prohibits non-stormwater discharges into your small MS4, except those non-stormwater discharges authorized under the Permit (Part III.D.3.b.)?  Yes  No

1. If **yes**:

- a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

- Ordinance                       Contract language  
 Policy/Standards               Permits  
 Rules  
 Other, explain: \_\_\_\_\_

- b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

*City Code Section 5.75*

Direct link:

*http://www.edenprairie.org/citycode*

- Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere\_IDDEreg*.

2. If **no**:

Describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

## Construction site stormwater runoff control

- A. Do you have a regulatory mechanism(s) that establishes requirements for erosion and sediment controls and waste controls?  Yes  No

1. If **yes**:

- a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

- Ordinance  Contract language  
 Policy/Standards  Permits  
 Rules  
 Other, explain: Development Agreements, Specifications

- b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

*City Code Chapter 11.55, Subdivisions 5, 6, 8 and 9*

Direct link:

<http://www.edenprairie.org/citycode>

- Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere\_CSWreg.*

- B. Is your regulatory mechanism at least as stringent as the MPCA general permit to Discharge Stormwater Associated with Construction Activity (as of the effective date of the MS4 Permit)?  Yes  No

If you answered **yes** to the above question, proceed to C.

If you answered **no** to either of the above permit requirements listed in A. or B., describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

*Engineering staff will work with Planning and Building Department Staff to update the City Code Section 11.55 to meet the requirements in the permit within 12 months of the date permit coverage is extended.*

- C. Answer **yes** or **no** to indicate whether your regulatory mechanism(s) requires owners and operators of construction activity to develop site plans that incorporate the following erosion and sediment controls and waste controls as described in the Permit (Part III.D.4.a.(1)-(8)), and as listed below:

- |  |   |
|--|---|
| 1. Best Management Practices (BMPs) to minimize erosion.   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 2. BMPs to minimize the discharge of sediment and other pollutants.  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 3. BMPs for dewatering activities.   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 4. Site inspections and records of rainfall events   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 5. BMP maintenance   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 6. Management of solid and hazardous wastes on each project site.  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 7. Final stabilization upon the completion of construction activity, including the use of perennial vegetative cover on all exposed soils or other equivalent means. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 8. Criteria for the use of temporary sediment basins.  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

## Post-construction stormwater management

- A. Do you have a regulatory mechanism(s) to address post-construction stormwater management activities?  Yes  No

1. If **yes**:

- a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

- Ordinance  Contract language  
 Policy/Standards  Permits  
 Rules  
 Other, explain: Development Agreements

- b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

*City Code Chapter 11.55 Subdivisions 8 and 9*

Direct link:

<http://www.edenprairie.org/citycode>

Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere\_PostCSWreg*.

- B. Answer **yes** or **no** below to indicate whether you have a regulatory mechanism(s) in place that meets the following requirements as described in the Permit (Part III.D.5.a.):

1. **Site plan review:** Requirements that owners and/or operators of construction activity submit site plans with post-construction stormwater management BMPs to the permittee for review and approval, prior to start of construction activity.  Yes  No
2. **Conditions for post construction stormwater management:** Requires the use of any combination of BMPs, with highest preference given to Green Infrastructure techniques and practices (e.g., infiltration, evapotranspiration, reuse/harvesting, conservation design, urban forestry, green roofs, etc.), necessary to meet the following conditions on the site of a construction activity to the Maximum Extent Practicable (MEP):
  - a. For new development projects – no net increase from pre-project conditions (on an annual average basis) of:  Yes  No
    - 1) Stormwater discharge volume, unless precluded by the stormwater management limitations in the Permit (Part III.D.5.a(3)(a)).
    - 2) Stormwater discharges of Total Suspended Solids (TSS).
    - 3) Stormwater discharges of Total Phosphorus (TP).
  - b. For redevelopment projects – a net reduction from pre-project conditions (on an annual average basis) of:  Yes  No
    - 1) Stormwater discharge volume, unless precluded by the stormwater management limitations in the Permit (Part III.D.5.a(3)(a)).
    - 2) Stormwater discharges of TSS.
    - 3) Stormwater discharges of TP.
3. **Stormwater management limitations and exceptions:**
  - a. Limitations
    - 1) Prohibit the use of infiltration techniques to achieve the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)) when the infiltration structural stormwater BMP will receive discharges from, or be constructed in areas:  Yes  No
      - a) Where industrial facilities are not authorized to infiltrate industrial stormwater under an NPDES/SDS Industrial Stormwater Permit issued by the MPCA.
      - b) Where vehicle fueling and maintenance occur.
      - c) With less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.
      - d) Where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating stormwater.
    - 2) Restrict the use of infiltration techniques to achieve the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)), without higher engineering review, sufficient to provide a functioning treatment system and prevent adverse impacts to groundwater, when the infiltration device will be constructed in areas:  Yes  No
      - a) With predominately Hydrologic Soil Group D (clay) soils.
      - b) Within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features.
      - c) Within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13.
      - d) Where soil infiltration rates are more than 8.3 inches per hour.
    - 3) For linear projects where the lack of right-of-way precludes the installation of volume control practices that meet the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)), the permittee's regulatory mechanism(s) may allow exceptions as described in the Permit (Part III.D.5.a(3)(b)). The permittee's regulatory mechanism(s) shall ensure that a reasonable attempt be made to obtain right-of-way during the project planning process.  Yes  No

4. **Mitigation provisions:** The permittee's regulatory mechanism(s) shall ensure that any stormwater discharges of TSS and/or TP not addressed on the site of the original construction activity are addressed through mitigation and, at a minimum, shall ensure the following requirements are met:
- a. Mitigation project areas are selected in the following order of preference:  Yes  No
    - 1) Locations that yield benefits to the same receiving water that receives runoff from the original construction activity.
    - 2) Locations within the same Minnesota Department of Natural Resource (DNR) catchment area as the original construction activity.
    - 3) Locations in the next adjacent DNR catchment area up-stream
    - 4) Locations anywhere within the permittee's jurisdiction.
  - b. Mitigation projects must involve the creation of new structural stormwater BMPs or the retrofit of existing structural stormwater BMPs, or the use of a properly designed regional structural stormwater BMP.  Yes  No
  - c. Routine maintenance of structural stormwater BMPs already required by this permit cannot be used to meet mitigation requirements of this part.  Yes  No
  - d. Mitigation projects shall be completed within 24 months after the start of the original construction activity.  Yes  No
  - e. The permittee shall determine, and document, who will be responsible for long-term maintenance on all mitigation projects of this part.  Yes  No
  - f. If the permittee receives payment from the owner and/or operator of a construction activity for mitigation purposes in lieu of the owner or operator of that construction activity meeting the conditions for post-construction stormwater management in Part III.D.5.a(2), the permittee shall apply any such payment received to a public stormwater project, and all projects must be in compliance with Part III.D.5.a(4)(a)-(e).  Yes  No
5. **Long-term maintenance of structural stormwater BMPs:** The permittee's regulatory mechanism(s) shall provide for the establishment of legal mechanisms between the permittee and owners or operators responsible for the long-term maintenance of structural stormwater BMPs not owned or operated by the permittee, that have been implemented to meet the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)). This only includes structural stormwater BMPs constructed after the effective date of this permit and that are directly connected to the permittee's MS4, and that are in the permittee's jurisdiction. The legal mechanism shall include provisions that, at a minimum:
- a. Allow the permittee to conduct inspections of structural stormwater BMPs not owned or operated by the permittee, perform necessary maintenance, and assess costs for those structural stormwater BMPs when the permittee determines that the owner and/or operator of that structural stormwater BMP has not conducted maintenance.  Yes  No
  - b. Include conditions that are designed to preserve the permittee's right to ensure maintenance responsibility, for structural stormwater BMPs not owned or operated by the permittee, when those responsibilities are legally transferred to another party.  Yes  No
  - c. Include conditions that are designed to protect/preserve structural stormwater BMPs and site features that are implemented to comply with the Permit (Part III.D.5.a(2)). If site configurations or structural stormwater BMPs change, causing decreased structural stormwater BMP effectiveness, new or improved structural stormwater BMPs must be implemented to ensure the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)) continue to be met.  Yes  No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within twelve (12) months of the date permit coverage is extended, these permit requirements are met:

*Engineering Department staff will evaluate the permit conditions in relation to current City Code requirements and update as needed within 12 months from when permit coverage is extended.*

### III. Enforcement Response Procedures (ERPs): (Part II.D.3)

- A. Do you have existing ERPs that satisfy the requirements of the Permit (Part III.B.)?  Yes  No
- 1. If **yes**, attach them to this form as an electronic document, with the following file naming convention: *MS4NameHere\_ERPs*.
  - 2. If **no**, describe the tasks and corresponding schedules that will be taken to assure that, with twelve (12) months of the date permit coverage is extended, these permit requirements are met:

*Engineering Department staff will work with Building, Planning, Utility, Street and Fire Department staff to develop ERPs within 12 months from when permit coverage is extended.*

B. Describe your ERPs:

#### IV. Storm Sewer System Map and Inventory: (Part II.D.4.)

A. Describe how you manage your storm sewer system map and inventory:

*We use Geographic Information System technology to map all identified components of our storm sewer system. Environmental interns and technicians supplement engineering staff to inspect stormwater wetlands, constructed ponds and infiltration basins and update the Storm Sewer System Map as needed. The City also has an Engineering Technician who updates the map on-site using a handheld GPS unit. The Storm Sewer System map includes inlet (including outfalls) and outlet pipes that are 12 inches in diameter and larger. The City also hires consultants to conduct inventories and assessments on an annual basis, this work is done by lake or creek subwatershed and is expected to take 11 years to complete a city-wide inventory. Once the inventory work is completed the City will evaluate the current map and determine if any adjustments are required.*

B. Answer **yes** or **no** to indicate whether your storm sewer system map addresses the following requirements from the Permit (Part III.C.1.a-d), as listed below:

1. The permittee's entire small MS4 as a goal, but at a minimum, all pipes 12 inches or greater in diameter, including stormwater flow direction in those pipes.  Yes  No
2. Outfalls, including a unique identification (ID) number assigned by the permittee, and an associated geographic coordinate.  Yes  No
3. Structural stormwater BMPs that are part of the permittee's small MS4.  Yes  No
4. All receiving waters.  Yes  No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

*All known components are mapped and will be updated as the inventories are completed.*

C. Answer **yes** or **no** to indicate whether you have completed the requirements of 2009 Minnesota Session Law, Ch. 172, Sec. 28: with the following inventories, according to the specifications of the Permit (Part III.C.2.a.-b.), including:

1. All ponds within the permittee's jurisdiction that are constructed and operated for purposes of water quality treatment, stormwater detention, and flood control, and that are used for the collection of stormwater via constructed conveyances.  Yes  No
2. All wetlands and lakes, within the permittee's jurisdiction, that collect stormwater via constructed conveyances.  Yes  No

D. Answer **yes** or **no** to indicate whether you have completed the following information for each feature inventoried.

1. A unique identification (ID) number assigned by the permittee.  Yes  No
2. A geographic coordinate.  Yes  No
3. Type of feature (e.g., pond, wetland, or lake). This may be determined by using best professional judgment.  Yes  No

If you have answered **yes** to all above requirements, and you have already submitted the Pond Inventory Form to the MPCA, then you do not need to resubmit the inventory form below.

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

E. Answer **yes** or **no** to indicate if you are attaching your pond, wetland and lake inventory to the MPCA on the form provided on the MPCA website at: <http://www.pca.state.mn.us/ms4>, according to the specifications of Permit (Part III.C.2.b.(1)-(3)). Attach with the following file naming convention: *MS4NameHere\_inventory*.  Yes  No

If you answered **no**, the inventory form must be submitted to the MPCA MS4 Permit Program within 12 months of the date permit coverage is extended.

#### V. Minimum Control Measures (MCMs) (Part II.D.5)

##### A. MCM1: Public education and outreach

1. The Permit requires that, within 12 months of the date permit coverage is extended, existing permittees revise their education and outreach program that focuses on illicit discharge recognition and reporting, as well as other specifically selected stormwater-related issue(s) of high priority to the permittee during this permit term. Describe your **current** educational program, including **any high-priority topics included**:

*The City of Eden Prairie aims to educate residents via a variety of methods. The City uses various media outlets such as local news articles, City newsletters (Life in the Prairie and Living Green), Facebook, and the City of Eden Prairie Living Green web site to educate citizens on the basics of our stormwater system, provide updates on current actions the city is taking to monitor or improve stormwater systems, and inform residents about opportunities to improve local water bodies through workshops, volunteer opportunities, or rebates. The City has developed an Environmental Learning Center, located within of the Water Treatment Plant, to educate students on water quality and conservation.*

2. List the categories of BMPs that address your public education and outreach program, including the distribution of educational materials and a program implementation plan. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the U.S. Environmental Protection Agency's (EPA) *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

**If you have more than five categories**, hit the tab key after the last line to generate a new row.

<b>Established BMP categories</b>	<b>Measurable goals and timeframes</b>
Distribute Educational Materials – City Newsletters	Include Stormwater related articles in the City's Newsletters (currently Living Green or Life in the Prairie) a minimum of twice annually. The number of articles printed will be tracked.
Report-a-Problem Link	Provide a link for residents to communicate problems or issues identified in the community. A Report a Problem link is currently on the Managing our Water Resources Page. The location and availability of the link will be evaluated in 2014 and updated as needed. Communications received and the responses provided are tracked.
Living Green Web Pages	Post events and topics on the Living Green web page, including Living Green News and Living Green Events. The number of web site hits to the Living Green page will be tracked.
Environmental Event	Provide a minimum of one educational opportunity or workshop to residents on water quality related topics annually. The number who attend the event will be tracked.
Multi-Media Production	Develop a minimum of one multi-media production such as a kiosk or video to be used at the Environmental Learning Center, during city events, or on the web site. The number of productions and the locations where each item are used will be tracked.
Environmental Learning Center (ELC)	Continue to develop the ELC at the Water Treatment Plant for public outreach with local school districts. The number of classes or groups who attend the ELC for a tour or class will be tracked.
New Resident Packet	Provide informational packets to new residents who come in to homestead their property. The packets will contain information on topics such as water quality, water conservation or recycling. A copy of a recent City Newsletter will be included. The number of packets handed out annually will be tracked.
City Council Submittal	Provide information regarding the NPDES program annually. The information provided to the meeting will be tracked.
<b>BMP categories to be implemented</b>	<b>Measurable goals and timeframes</b>
Social Media	Use Facebook or other social media outlet to provide educational topics to residents on stormwater, recycling, and water conservation. A minimum of 4 postings will be completed annually. The number of postings and the number of Facebook subscribers at the end of each year will be tracked.

High Priority Topic Evaluation	Develop a list of high-priority topics to be emphasized during the permit term within 12 months of when permit coverage is extended. The number of topics selected and the plan to address these topics will be tracked. Depending on the topic selected, other tracking mechanisms may be utilized if needed.
E-Newsletter	Provide email notification to subscribers about updates to the City's environmental web site (currently Living Green) when needed to convey new information that is posted. The number of email notifications and number of subscribers at the end of the year will be tracked.
Educational Publications	Provide brochures on land alteration requirements and water quality rebates as needed. Update brochures previously written as needed. The number of land alteration permits and the number of water quality rebates granted will be tracked annually.
Source Water Protection Area Education Plan	Develop a plan to provide education to residents within the source water protection area regarding the potential for stormwater impacts within 12 months of when permit coverage is extended. The number of educational items developed and distributed will be tracked. Depending on the topic selected, other tracking mechanisms may be utilized if needed.

3. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

*Leslie Stovring, Environmental Coordinator*

## B. MCM2: Public participation and involvement

1. The Permit (Part III.D.2.a.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement a public participation/involvement program to solicit public input on the SWPPP. Describe your current program:

*The City's stormwater pollution prevention program aims to address water quality concerns due to pollutants transported by stormwater runoff to our lakes, creeks and wetlands. The intent of the SWPPP is to meet the permit requirements as well as provide a user-friendly tool for day-to-day management of the City's stormwater system. Within the current SWPPP, the City outlines BMPs for each of the 6 Minimum Control Measures (MCMs) used to meet the Phase II NPDES permit requirements.*

2. List the categories of BMPs that address your public participation/involvement program, including solicitation and documentation of public input on the SWPPP. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). **If you have more than five categories**, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Annual Meeting	Hold one public meeting annually to distribute information regarding stormwater pollution prevention programs ongoing within the City and to allow the community to provide comments or suggestions for the continuing success of the SWPPP. Appropriate public notice will be provided. Public input will be considered annually. The date of the meeting, the date the notice is published, the number of people who attend and the comments received will be tracked.
Storm Drain Labeling Program	Alert residents via social media and website posts that the City has a volunteer program to label storm drains. The number of volunteers or volunteer groups will be tracked.
Wetland Health Evaluation Program (WHEP)	Provide opportunities for citizens to assess the health of selected, local wetlands as part of Hennepin County's wetland monitoring program when Hennepin County provides the program and volunteers are available. The number of volunteers and the number of wetlands monitored will be tracked.

Park Clean Up / Park Activities	Continue to provide a volunteer opportunity for local groups to participate in cleaning up waste materials from our park and trail system through the Parks Department. The number of groups who attend will be tracked.
Conservation Commission	Provide an avenue for residents to provide input to the City Council regarding topics such as stormwater and water quality. The number of volunteers on the Commission and the number of meetings held annually will be tracked.
<b>BMP categories to be implemented</b>	<b>Measurable goals and timeframes</b>
Citizen Assisted Monitoring Program (CAMP)	Provide an opportunity for residents to monitor lakes within the City as part of Metropolitan Council's Metropolitan Lake Monitoring Program. The number of volunteers and the number of lakes monitored will be tracked.
Adopt-a-Street Program	Update and promote the existing program to assist in keeping the streets free of debris and litter. The number of volunteer groups who sign up annually will be tracked.

3. Do you have a process for receiving and documenting citizen input?  Yes  No

If you answered **no** to the above permit requirement, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

4. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

*Leslie Stovring, Environmental Coordinator*

**C. MCM 3: Illicit discharge detection and elimination**

1. The Permit (Part III.D.3.) requires that, within 12 months of the date permit coverage is extended, existing permittees revise their current program as necessary, and continue to implement and enforce a program to detect and eliminate illicit discharges into the small MS4. Describe your current program:

*Our City Code was updated to prohibit illicit discharges and connections. The current program includes providing training opportunities to Utilities, Streets, and Parks and Recreation field employees in a number of areas, including how to identify and take action in case of illicit discharges.*

2. Does your Illicit Discharge Detection and Elimination Program meet the following requirements, as found in the Permit (Part III.D.3.c.-g.)?

- a. Incorporation of illicit discharge detection into all inspection and maintenance activities conducted under the Permit (Part III.D.6.e.-f.) Where feasible, illicit discharge inspections shall be conducted during dry-weather conditions (e.g., periods of 72 or more hours of no precipitation).  Yes  No
- b. Detecting and tracking the source of illicit discharges using visual inspections. The permittee may also include use of mobile cameras, collecting and analyzing water samples, and/or other detailed procedures that may be effective investigative tools.  Yes  No
- c. Training of all field staff, in accordance with the requirements of the Permit (Part III.D.6.g.(2)), in illicit discharge recognition (including conditions which could cause illicit discharges), and reporting illicit discharges for further investigation.  Yes  No
- d. Identification of priority areas likely to have illicit discharges, including at a minimum, evaluating land use associated with business/industrial activities, areas where illicit discharges have been identified in the past, and areas with storage of large quantities of significant materials that could result in an illicit discharge.  Yes  No
- e. Procedures for the timely response to known, suspected, and reported illicit discharges.  Yes  No
- f. Procedures for investigating, locating, and eliminating the source of illicit discharges.  Yes  No
- g. Procedures for responding to spills, including emergency response procedures to prevent spills from entering the small MS4. The procedures shall also include the immediate notification of the Minnesota Department of Public Safety Duty Officer, if the source of the illicit discharge is a spill or leak as defined in Minn. Stat. § 115.061.  Yes  No
- h. When the source of the illicit discharge is found, the permittee shall use the ERPs required by the Permit (Part III.B.) to eliminate the illicit discharge and require any needed corrective action(s).  Yes  No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

*The city will update existing procedures to provide Emergency Response Procedures and written guidelines as required by the permit and will provide training opportunities to seasonal staff in addition to the existing educational opportunities provided within 12 months from when permit coverage is extended.*

- List the categories of BMPs that address your illicit discharge, detection and elimination program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

**If you have more than five categories**, hit the tab key after the last line to generate a new row.

<b>Established BMP categories</b>	<b>Measurable goals and timeframes</b>
Storm Sewer System Map	The storm sewer system base map was developed in 1997 and is updated as new information is identified. The map will continue to be updated as we complete our watershed inventories. The number of stormwater features will be tracked.
Regulatory Control Program	The City does not anticipate revising the existing city code; however we will review the code to ensure that it meets the City's needs to protect stormwater systems from illicit discharges while the stormwater management code section is being updated. The date that the city code update is completed, if needed, will be tracked.
City Clean Up Event	Continue to provide an annual event where residents can bring in items for disposal that are typically not picked up by local waste haulers. The amount of materials disposed of and an estimate of the number of vehicles who enter the event will be tracked.
Illicit Discharge Detection Plan	Evaluate and update the existing Illicit Discharge Detection and Elimination Program to meet new permit requirements within 12 months from when permit coverage is extended. The program will be integrated with the storm sewer inspection and maintenance program outlined in MCM 6. A written plan will be developed to identify, investigate, locate and eliminate illicit discharges. The dates and locations of IDDE inspections, reports of illicit discharges, the number of illicit discharges identified follow-up actions taken, outfalls or other areas where illicit discharges are identified, the number of illegal dumping sites reported to the MPCA, and the actions taken, including the number of follow-up tests (such as dye or smoke tests), will be tracked.

<b>BMP categories to be implemented</b>	<b>Measurable goals and timeframes</b>
Emergency Response Program (ERP)	Develop and implement ERPs to enforce and compel compliance with the Illicit Discharge Ordinance and set up a tracking mechanism in accordance with the permit requirements. The plan will be completed within 12 months from when permit coverage is extended. The date that the ERP is completed will be tracked.
IDDE Employee Education Program	Update and expand the employee education program regarding illegal dumping and illicit discharges and how to report suspected activities to meet the new permit requirements within 12 months from when permit coverage is extended. The number of employees trained will be tracked.
IDDE Public Education Program	Educate the public regarding illegal dumping and illicit discharges and how to report suspected activities using the measures outlined in MCMs 1 and 2. The City will evaluate the current illicit discharge education program and update the program as needed. The number of articles or other educational materials provided will be tracked.
Priority Area Identification	Evaluate the city and identify priority areas likely to have illicit discharges within 12 months from when permit coverage is extended. Based on the results of the evaluation, additional inspections will be scheduled for areas identified as having higher likelihood for illicit discharges. The number of sites identified and inspected will be tracked.

4. Do you have procedures for record-keeping within your Illicit Discharge Detection and Elimination (IDDE) program as specified within the Permit (Part III.D.3.h.)?  Yes  No

If you answered **no**, indicate how you will develop procedures for record-keeping of your Illicit Discharge, Detection and Elimination Program, within 12 months of the date permit coverage is extended:

5. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

*Leslie Stovring, Environmental Coordinator*

**D. MCM 4: Construction site stormwater runoff control**

1. The Permit (Part III.D.4) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement and enforce a construction site stormwater runoff control program. Describe your current program:

*The City requires land alteration permits to be completed for any construction activities that impact one acre or more of land. Measures that were included as part of this permit process include a site plan review, inspection of construction sites, pre-construction meetings (for any site requiring a Land Alteration Permit), and a process to report problems. Applicants are required to submit plans for review and approval.*

2. Does your program address the following BMPs for construction stormwater erosion and sediment control as required in the Permit (Part III.D.4.b.):
- a. Have you established written procedures for site plan reviews that you conduct prior to the start of construction activity?  Yes  No
  - b. Does the site plan review procedure include notification to owners and operators proposing construction activity that they need to apply for and obtain coverage under the MPCA's general permit to *Discharge Stormwater Associated with Construction Activity No. MN R100001*?  Yes  No
  - c. Does your program include written procedures for receipt and consideration of reports of noncompliance or other stormwater related information on construction activity submitted by the public to the permittee?  Yes  No
  - d. Have you included written procedures for the following aspects of site inspections to determine compliance with your regulatory mechanism(s):
    - 1) Does your program include procedures for identifying priority sites for inspection?  Yes  No
    - 2) Does your program identify a frequency at which you will conduct construction site inspections?  Yes  No
    - 3) Does your program identify the names of individual(s) or position titles of those responsible for conducting construction site inspections?  Yes  No
    - 4) Does your program include a checklist or other written means to document construction site inspections when determining compliance?  Yes  No
  - e. Does your program document and retain construction project name, location, total acreage to be disturbed, and owner/operator information?  Yes  No
  - f. Does your program document stormwater-related comments and/or supporting information used to determine project approval or denial?  Yes  No
  - g. Does your program retain construction site inspection checklists or other written materials used to document site inspections?  Yes  No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met.

*Engineering Department staff will evaluate the permit conditions in relation to the new permit requirements, update the program and develop written procdures and checklists as needed within 12 months from when permit coverage is extended.*

3. List the categories of BMPs that address your construction site stormwater runoff control program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). **If you have more than five categories**, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Regulatory Mechanism	Review and update the stormwater management provisions within City Code to meet the new stormwater permit requirements within 12 months from when permit coverage is extended. The date that the city code update is completed will be tracked.
Site Plan Review	Review and update site plan review procedures as needed to meet the new permit requirements within 12 months from when permit coverage is extended. The number of site plans reviewed will be tracked. The information tracked will include project name, location and total acreage disturbed.
Public Input	Review and update procedures for receipt and consideration of public input as needed to meet the new permit requirements within 12 months from when permit coverage is extended. The number of reports from the public will be tracked.
Site Inspection and Enforcement	Review and update procedures for conducting site inspections, including development of a checklist, to meet the new permit requirements within 12 months from when permit coverage is extended. A process for identifying priority sites for inspection will be developed. The number of site inspections conducted by erosion control inspectors will be tracked.
BMP categories to be implemented	Measurable goals and timeframes
Emergency Response Program	Develop and implement ERPs to enforce and compel compliance with the Stormwater Management and Land Alteration Ordinance requirements. For violations that are identified, the City will track persons responsible, the date and location of the observed violation, the corrective actions required, the date and type of enforcement used, referrals to other regulatory agencies (if any) and the date the violation was resolved. The plan will be completed within 12 months from when permit coverage is extended.

4. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:  
Mary Krause, Project Engineer

**E. MCM 5: Post-construction stormwater management**

1. The Permit (Part III.D.5.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement and enforce a post-construction stormwater management program. Describe your current program:

*The City has developed an Ordinance and a stormwater management section in our Developer's Agreement template that include provisions to address post-construction site stormwater runoff. These address long-term maintenance and repair requirements for stormwater control structures that are not under drainage and utility easements.*

2. Have you established written procedures for site plan reviews that you will conduct prior to the start of construction activity?  Yes  No
3. Answer **yes** or **no** to indicate whether you have the following listed procedures for documentation of post-construction stormwater management according to the specifications of Permit (Part III.D.5.c.):
- a. Any supporting documentation that you use to determine compliance with the Permit (Part III.D.5.a), including the project name, location, owner and operator of the construction activity, any checklists used for conducting site plan reviews, and any calculations used to determine compliance?  Yes  No
  - b. All supporting documentation associated with mitigation projects that you authorize?  Yes  No
  - c. Payments received and used in accordance with Permit (Part III.D.5.a.(4)(f))?  Yes  No
  - d. All legal mechanisms drafted in accordance with the Permit (Part III.D.5.a.(5)), including date(s) of the agreement(s) and names of all responsible parties involved?  Yes  No

If you answered **no** to any of the above permit requirements, describe the steps that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met.

*Engineering Department staff will evaluate the permit conditions in relation to the new permit requirements and update the program as needed within 12 months from when permit coverage is extended.*

4. List the categories of BMPs that address your post-construction stormwater management program. Use the first table

for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). **If you have more than five categories**, hit the tab key after the last line to generate a new row.

<b>Established BMP categories</b>	<b>Measurable goals and timeframes</b>
Regulatory Mechanism	Review and update the stormwater management provisions within City Code to meet the new stormwater permit requirements within 12 months from when permit coverage is extended. This will include incorporation of volume, total suspended solids and total phosphorus treatment requirements and limitations. The date that the city code update is completed will be tracked.
Maintenance Plan	Review and update the long-term maintenance provisions within City Code to meet the new stormwater permit requirements within 12 months from when permit coverage is extended. This will include requirements to protect and preserve structural stormwater BMPs and treatment effectiveness of stormwater BMPs. The date that the city code update is completed will be tracked.
Site Plan Review	Review and update site plan review procedures as needed to meet the new permit requirements within 12 months from when permit coverage is extended. The number of site plans reviewed, including items such as project name, location, owner and operator and legal mechanisms drafted (if needed), will be tracked as required.
Local Water Management Plan	Update the existing Local Water Management Plan to integrate the new stormwater permit requirements as needed. The date the plan is submitted to the City Council for approval and any public comments received will be tracked.
<b>BMP categories to be implemented</b>	<b>Measurable goals and timeframes</b>
Stormwater Mitigation Plan	Develop a plan to provide mitigation for Total Suspended Solids and Total Phosphorus treatment for circumstances where it cannot be cost-effectively managed onsite. The plan will be developed within 12 months from when permit coverage is extended. The number of projects where off-site mitigation is used will be tracked.

5. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

*Leslie Stovring, Environmental Coordinator*

**F. MCM 6: Pollution prevention/good housekeeping for municipal operations**

1. The Permit (Part III.D.6.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement an operations and maintenance program that prevents or reduces the discharge of pollutants from the permittee owned/operated facilities and operations to the small MS4. Describe your current program:

*Municipal staff from utility, street and parks departments are provided training opportunities annually for education on how to reduce pollutant runoff from municipal operations. Operations such as street sweeping; pesticide, herbicide and fertilizer usage; street salt storage and usage; and pond maintenance are some of the types of opportunities that have been provided. The City has an inspection program that monitors City owned operating areas and stockpiles.*

2. Do you have a facilities inventory as outlined in the Permit (Part III.D.6.a.)?  Yes  No
3. If you answered **no** to the above permit requirement in question 2, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

*Engineering Department staff will evaluate the permit conditions in relation to the new permit requirements and update the program as needed within 12 months from when permit coverage is extended.*

4. List the categories of BMPs that address your pollution prevention/good housekeeping for municipal operations program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. For an explanation of measurable goals, refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Pond Inventory & Maintenance Assessment	The City has developed an inventory and maintenance plan to evaluate TSS and TP treatment effectiveness for constructed ponds and stormwater wetlands. No changes to the plan are anticipated at this time. The number of stormwater features inventoried and the proposed projects resulting from the assessment will be tracked.
Stockpile and Storage Area Inspection Program	Develop a written procedure to inspect stockpiles and storage and material handling areas quarterly to determine maintenance needs and verify proper functioning of BMPs on City-owned properties. Actions taken to remediate identified problems will be tracked.
Stormsewer Inspection Program	Inspect stormwater ponds, stormwater wetlands and infiltration BMPs that receive public drainage and stormwater outfalls at least once per permit cycle. The database will be updated as needed to clarify which structures should be in the inspection program. The number of ponds, wetlands, outfalls and BMPs inspected will be tracked.
Maintenance Plan	Based on inspection findings, the repair, replacement or maintenance plan will be updated if needed. The number and cost of capital improvement projects completed as a result of the inventory and maintenance assessment will be tracked.
Employee Training Program	Review and update the employee training program to ensure it meets the new permit requirements within 12 months from the date permit coverage is extended. The training will address the importance of protecting water quality and cover the requirements of the permit that are relevant to the job duties of the employee. Training opportunities, including the date and the names of employees in attendance at each opportunity, will be tracked.
Sweeping	Sweep entire city street system a minimum of once annually with a goal of sweeping each spring and fall. During intermittent times, the sweeping of streets and parking lots will focus on priority watersheds. The number of lane miles swept will be tracked.
BMP categories to be implemented	Measurable goals and timeframes
Facilities Inventory	Develop and maintain a Facilities Inventory of all facilities that are owned or operated by the City that contribute pollutants to stormwater discharges within 12 months from the date permit coverage is extended. The number of facilities inventoried and the date the inventory is completed will be tracked.
Facilities and Operations BMP Plan	Develop and implement a plan to prioritize activities and provide BMPs for inventoried facilities and municipal operations where needed to the maximum extent practicable after the Facilities Inventory is completed. The Plan will consider the source of pollutants and the sensitivity of receiving waters. BMPs will be developed to prevent or reduce pollutants from stormwater discharges. The BMP Plan will be completed within 12 months after the Facilities Inventory is complete. The date the plan is completed and the number of BMPs installed or constructed during the permit cycle will be tracked.
Source Water Protection Area (SWPA) Plan	Evaluate the need for development and implementation of BMPs for stormwater discharges that may affect SWPAs within 12 months from when permit coverage is extended. The plan will be completed in conjunction with the Facilities Inventory and will include a map of the source water protection elements as required. The number of BMPs implemented, if needed, will be tracked.
Structural Stormwater BMP Inspections	The City currently has a modified inspection schedule which we will continue to follow and update as needed. The number of structural stormwater BMPs inspected annually will be tracked.

5. Does discharge from your MS4 affect a Source Water Protection Area (Permit Part III.D.6.c.)?  Yes  No
- a. If **no**, continue to 6.
- b. If **yes**, the Minnesota Department of Health (MDH) is in the process of mapping the following items. Maps are available at <http://www.health.state.mn.us/divs/eh/water/swp/maps/index.htm>. Is a map including the following items available for your MS4:
- 1) Wells and source waters for drinking water supply management areas identified as vulnerable under Minn. R. 4720.5205, 4720.5210, and 4720.5330?  Yes  No
- 2) Source water protection areas for surface intakes identified in the source water assessments conducted by or for the Minnesota Department of Health under the federal Safe Drinking Water Act, U.S.C. §§ 300j – 13?  Yes  No
- c. Have you developed and implemented BMPs to protect any of the above drinking water sources?  Yes  No
6. Have you developed procedures and a schedule for the purpose of determining the TSS and TP treatment effectiveness of all permittee owned/operated ponds constructed and used for the collection and treatment of stormwater, according to the Permit (Part III.D.6.d.)?  Yes  No
7. Do you have inspection procedures that meet the requirements of the Permit (Part III.D.6.e.(1)-(3)) for structural stormwater BMPs, ponds and outfalls, and stockpile, storage and material handling areas?  Yes  No
8. Have you developed and implemented a stormwater management training program commensurate with each employee's job duties that:
- a. Addresses the importance of protecting water quality?  Yes  No
- b. Covers the requirements of the permit relevant to the duties of the employee?  Yes  No
- c. Includes a schedule that establishes initial training for new and/or seasonal employees and recurring training intervals for existing employees to address changes in procedures, practices, techniques, or requirements?  Yes  No
9. Do you keep documentation of inspections, maintenance, and training as required by the Permit (Part III.D.6.h.(1)-(5))?  Yes  No

If you answered **no** to any of the above permit requirements listed in **Questions 5 – 9**, then describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

*Engineering Department staff will evaluate the permit conditions in relation to the new permit requirements and update the program as needed within 12 months from when permit coverage is extended.*

10. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

*Leslie Stovring, Environmental Coordinator*

## VI. Compliance Schedule for an Approved Total Maximum Daily Load (TMDL) with an Applicable Waste Load Allocation (WLA) (Part II.D.6.)

- A. Do you have an approved TMDL with a Waste Load Allocation (WLA) prior to the effective date of the Permit?  Yes  No
1. If **no**, continue to section VII.
2. If **yes**, fill out and attach the MS4 Permit TMDL Attachment Spreadsheet with the following naming convention: *MS4NameHere\_TMDL*.

This form is found on the MPCA MS4 website: <http://www.pca.state.mn.us/ms4>.

## VII. Alum or Ferric Chloride Phosphorus Treatment Systems (Part II.D.7.)

- A. Do you own and/or operate any Alum or Ferric Chloride Phosphorus Treatment Systems which are regulated by this Permit (Part III.F.)?  Yes  No
1. If **no**, this section requires no further information.
2. If **yes**, you own and/or operate an Alum or Ferric Chloride Phosphorus Treatment System within your small MS4, then you must submit the Alum or Ferric Chloride Phosphorus

Treatment Systems Form supplement to this document, with the following naming convention: *MS4NameHere\_TreatmentSystem*.

This form is found on the MPCA MS4 website: <http://www.pca.state.mn.us/ms4>.

## VIII. Add any Additional Comments to Describe Your Program

# TMDL Wasteload Allocation Excel Spreadsheet PART II.D.6.a.-e.

Copy and paste from the Master List MS4 TMDL Spreadsheet for your MS4 to the space below.

*Attach this completed form with your SWPPP Document at the time of submittal. At a **minimum**, provide all of the information "\*" items (TMDL Project Name, Type of WLA, Numeric WLA, Unit, Flow Condition, and Pollutant of Concern).*

Permittee name	Preferred ID	TMDL project name*	Waterbody ID	Type of WLA*	Numeric WLA*	Unit*	Percent reduction	Flow condition*	Waterbody name	Pollutant of concern*	Date approved
City of Eden Prairie	MS400015	Nine Mile Creek Chloride TMDL	07020012-518	Categorical	5.164	tons/day	62	NA	Nine Mile Creek	Chloride	11/29/2010

*Flow Condition was not provided.*

# Compliance Schedule PART II.D.6.f.-g.

Is your MS4 currently meeting its WLA for any approved TMDLs?

**NO** (Complete Table 1, Strategies for continued BMP implementation beyond the term of this permit, and Table 2 below)

**YES** (Provide the following information below)

Go to:

[Table 1](#)

Go to:

[Strategies...](#)

Go to:

[Table 2](#)

If YES, indicate the WLAs (may be grouped by TMDL Project) you believe are reasonably being met. For each WLA, list the implemented BMPs and provide a narrative strategy for the long-term continuation of meeting each WLA. PART II.D.6.g.(1)-(2)

### Nine Mile Creek Chloride TMDL - 5.164 tons/day Chloride

The City meets the requirements established by the Nine Mile Creek Watershed District for salt usage in this watershed. Therefore, we will continue to maintain the existing BMPs to ensure they remain sufficient to address any loading generated from our system. Following are measures the City takes to minimize salt usage and impacts:

- Provide training opportunities to all plowing staff on salt usage and application techniques when available through MnDOT and the watershed district. Most of the current staff, and all the street maintenance leads, have received training.
- Pre-treat roadways with a diluted liquid salt brine prior to storm events to reduce salt usage and minimize scattering while allowing for easier removal of snow and ice after the storm event.
- Use electronic monitoring to track amount of salt applied, including when applied, how much is applied and when the application started and stopped.
- Sweep streets a minimum of once annually in the spring to remove salt and sand that remains on the road.
- Monitor and assess stormwater treatment areas for pollutant removal effectiveness.
- Provide educational articles on how to reduce salt usage in City newsletter annually.

### Table 1

Fill in the following table with your Interim Milestones, BMP IDs, and Implementation Dates. Replace "TMDL Project Name & Pollutant" Columns with each TMDL Project Name and the corresponding pollutant. Then put an "X" in the boxes for the TMDL that corresponds with each BMP. PART II.D.6.f.(1)-(2)

#### NOTE:

It is recommended to assign each Interim Milestone (BMP) a BMP ID. You will be required to report on the status of each Interim Milestone and include a BMP ID for all structural BMPs as part of the MS4 Annual Report (see Part III.E.), so including those ID numbers at the time of application may be useful in tracking implementation efforts. If a pond that will be included in the pond inventory (Part III.C.2.) is to be applied toward a WLA, use the same ID for both the pond inventory and TMDL tracking. Non-structural BMPs are not required to have an ID, but it may be useful to assign it an ID for internal MS4 recordkeeping.

MPCA recommends the Implementation Dates align with the submittal of MS4 Annual Reports. Dates selected may not reflect the actual date a BMP is implemented, but shall indicate a BMP will be implemented on that date or before for that reporting year.

Interim Milestone (Best Management Practice)	BMP ID	Implementation Date	TMDL Project Name & Pollutant1	TMDL Project Name & Pollutant2	TMDL Project Name & Pollutant3	TMDL Project Name & Pollutant4	TMDL Project Name & Pollutant5

Strategies for continued BMP implementation beyond the term of this permit. PART II.D.6.f.(3)

**Table 2**  
**Target dates the applicable WLA(s) will be achieved. PART II.D.6.f.(4)**

TMDL Project	Target Date to Achieve WLA

## Public Education and Outreach MS4 EDUCATION TOPIC SURVEY

Please rank these educational topics in order that you feel are of most importance to the community with a number one (1) given to the lowest priority topics and a five (5) given to the most important topics. If there are other issues that you think should be addressed, please add them to the bottom of the last page. This ranking will help to guide the MS4 education plan for the following year.

RANKING	EDUCATIONAL TOPIC
	<ul style="list-style-type: none"> <li>• <b>Illicit Discharge Detection Response Plan (IDDR) - Commercial</b> <i>-Educate commercial businesses on the City's new IDDR plan and about illicit connections, illegal dumping and spills.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Illicit Discharge Detection Response Plan (IDDR) - Residential</b> <i>-Educate citizens on the City's new IDDR plan and about illicit connections, illegal dumping and spills.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Educate the commercial businesses about the benefits of green infrastructure (GI) and low impact development (LID)</b> <i>-Green infrastructure and the use of natural hydrologic features to manage water.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Educate the residential community about the benefits of green infrastructure (GI) and low impact development (LID)</b> <i>-Green infrastructure and the use of natural hydrologic features to manage water.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Impaired creeks/rivers in Eden Prairie (Riley Creek &amp; Minnesota River) &amp; required TMDLs</b> <i>-Provide public education on the impaired creeks/rivers in the community, what it means and what can be done to improve the quality of these waters.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Impaired lakes in Eden Prairie (Bryant, Mitchell, Red Rock, Riley &amp; Staring) &amp; required TMDLs</b> <i>-Provide public education on the impaired lakes in the community, what it means and what can be done to improve the quality of these waters.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Household hazardous waste</b> <i>-Environmental and human health repercussions from improper disposal of household hazardous products can have within the community.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Winter snow and ice management (Commercial)</b> <i>-Provide education to commercial applicators on snow and ice removal and how high levels of chloride can have a negative effect on the environment and about low-impact (natural) alternatives.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Winter snow and ice management (Residential)</b> <i>-Provide education to citizens on snow and ice removal and how high levels of chloride can have a negative effect on the environment and about low-impact (natural) alternatives.</i></li> </ul>

## Public Education and Outreach MS4 EDUCATION TOPIC SURVEY

Please rank these educational topics in order that you feel are of most importance to the community with a number one (1) given to the lowest priority topics and a five (5) given to the most important topics. If there are other issues that you think should be addressed, please add them to the bottom of the last page. This ranking will help to guide the MS4 education plan for the following year.

	<ul style="list-style-type: none"> <li>• <b>Landscaping for water quality rebates</b> <i>-Provide information to citizens on the rebate program for construction of infiltration areas such as rain gardens and restoration of shoreland areas.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Non-point source pollutants – Urban areas</b> <i>- Proper management of yard waste; fertilizers, herbicides and insecticides.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Non-point source pollutants – Urban areas</b> <i>- Proper disposal of oil and grease; garbage/chemical/fluid management; etc.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Non-point source pollutants – Boating activities</b> <i>- Boat maintenance and repair; oil and fuel; solid waste and debris.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Septic system maintenance and/or travel trailer sanitary waste disposal.</b> <i>-Leaking septic tanks and improper disposal of waste from RV's can affect water quality and wildlife habitat.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Low or no phosphorus fertilizer education</b> <i>-Bring awareness to homeowners and citizens about using low or no phosphorus fertilizer to help protect water quality.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Pet waste management</b> <i>-Minimize the impact of pet waste on receiving waters with pet waste stations.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Vulnerability of drinking water</b> <i>-Provide information to citizens on how they can help protect groundwater in the community.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Landscaping for water quality rebates</b> <i>-Provide information to citizens on the rebate program for construction of infiltration areas such as rain gardens and restoration of shoreland areas.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Recognition program for stormwater quality improvements</b> <i>-Increase implementation of stormwater BMPs by recognizing efforts that reduce impacts of stormwater runoff.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Lake Association Education</b> <i>-Provide information to citizens regarding the various lake associations that exist and rebates available for shoreline buffers.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Bluffland management</b> <i>-Provide citizen education on protecting and restoring blufflands.</i></li> </ul>

**Public Education and Outreach  
MS4 EDUCATION TOPIC SURVEY**

Please rank these educational topics in order that you feel are of most importance to the community with a number one (1) given to the lowest priority topics and a five (5) given to the most important topics. If there are other issues that you think should be addressed, please add them to the bottom of the last page. This ranking will help to guide the MS4 education plan for the following year.

	<b>Other Topics of Interest</b>

# ILLICIT DISCHARGE

## Detection and Elimination



The City of Eden Prairie is working to eliminate illegal dumping into its storm sewer system. Minnesota's public waters are sources of drinking water and provide recreational opportunities such as swimming, boating and fishing, which can all be negatively affected by the pollutants stormwater carries.



Damage to a stream after rinsing blue paint into a storm drain.

### NEED MORE INFORMATION?

To learn about proper disposal methods for liquids such as paint, visit [hennepin.us/greendisposalguide](http://hennepin.us/greendisposalguide).

### Illicit Discharge

**Illicit discharge** is any discharge to the storm sewer system that is harmful to the health or welfare of people, the environment, wildlife or surface waters. Illicit discharges include items such as:

- Sediment washing from construction sites
- Chemical or oil spills
- Sewage from broken sewer lines or overflow from private septic systems
- Pesticides, herbicides, wash water from cleaning up paint and household cleaners



Illicit discharges could be **intermittent** — only occurring a few minutes per day or a few days per year, **continuous** — occurring almost daily or **transitory** — only occurring once.

**Which activities are not considered illicit discharges?** Water line flushing, residential car washing or draining swimming pools that are dechlorinated (left to rest for seven or more days after treatment), firefighting and lawn watering are not considered illicit.

### How Does a Small Amount Affect the Environment?

It only takes a very small amount of many types of chemicals to harm fish, plants and other aquatic organisms. For example, just 1 teaspoon of mercury is enough to contaminate more than 13 Olympic-sized swimming pools of drinking water. And most contractors know that rinsing concrete equipment into a lake or stream can kill fish. This is because the liquid can dramatically change the pH of water, making it very alkaline.

Most of these chemicals enter our water systems through improper or accidental disposal outside.

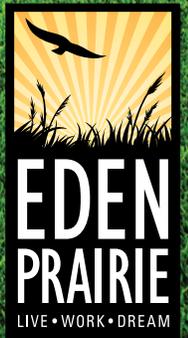
### What Do I Do if I Suspect an Illicit Discharge is Present?

If you notice illegal or suspicious dumping into a storm sewer inlet or curb ditch, you should report the problem in one of the following ways:

- Call the City's Engineering Division at **952-949-8330**
- Call **911** if you suspect the issue requires immediate attention
- Use the **EP SEE CLICK FIX** app that is downloadable to your mobile device or visit [edenprairie.org/EPSECLICKFIX](http://edenprairie.org/EPSECLICKFIX)



# PET WASTE AND WATER POLLUTION



Dogs in Eden Prairie produce up to 4 tons of waste each day. Unfortunately, pet waste left on the ground washes into storm drains and waterways, exposing humans, pets and wildlife to harmful bacteria and other contaminants.



## NEED HELP MANAGING PET WASTE?

There are many pet waste removal services available which can be found online. For more information, call the City's Engineering Division at **952-949-8330**.

## What is the City's policy on pet waste?

Eden Prairie's City Code states that pet owners cannot leave waste on public or private property without permission from the owner. While it is not illegal to leave pet waste in your own yard, the City asks that you pick up after your pooch to reduce the movement of bacteria into water or into areas where it can be stepped on.

## How does pet waste in my yard pollute water?

When pet waste is left on a lawn and is later rained on, it leaches bacteria, viruses and parasites (such as worms and giardia) into storm water, which can threaten the health of humans and animals. Pet waste also contains nutrients that promote weed and algae growth in lakes and rivers. This is the same as when too much fertilizer is used – it turns waterbodies into a mucky, green color. Picking up dog waste helps keep our recreation areas clean, safe and beautiful.



## What about all the other animals?

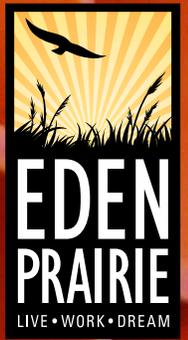
It is true that squirrels, geese and other wildlife also contribute to water pollution. However, these animals tend to spread out waste across the landscape, whereas dog waste tends to be concentrated in yards, pens and along sidewalks or paths. Cats usually bury their waste, so it does not get into waterways as easily.

## How do I properly dispose of pet waste?

When nature calls, the best option is to flush pet waste down the toilet where it will be treated at the sewage treatment plant just like human waste. You can always just pick it up in a plastic bag and throw it in the garbage.



# STORMWATER MANAGEMENT



The City of Eden Prairie encourages residents to help the City and local watershed districts manage stormwater and protect our waterways.

Over time, more impervious surfaces, such as roads, rooftops and parking lots, have been built around the City. These surfaces do not allow rain to absorb into the ground, resulting in larger amounts of water flowing more quickly to a downstream creek, wetland, pond or lake than it would in a natural prairie or wooded landscape.

Large rainstorms can lead to flooding and erosion in downstream channels. Stormwater is also a leading transporter of pollutants from our streets. Homeowners can help protect valuable property and enhance water quality at the same time by using the methods listed below.

Best Management Practices (BMP)	Downstream Benefits	Water Quality Benefits	Groundwater Benefits	
Rain gardens or vegetated ditches	Reduces the amount and speed of runoff	Filters the runoff and allows plants to consume excess fertilizers	Recharges groundwater, if infiltrated	
Rain barrels	Reduces amount of runoff	Reuse of stormwater	Conserves water	
Redirecting downspouts from impervious surfaces to vegetated areas	Allows infiltration and reduces the speed of runoff	Allows filtering of runoff to remove pollutants	Cleans surface water before it infiltrates to groundwater	
Pervious pavements or pavers in place of asphalt or concrete	Allows infiltration and reduces the speed of runoff	Allows filtering of runoff to remove pollutants	Cleans surface water before it infiltrates to groundwater	

## REBATES MAY BE AVAILABLE

To learn about stormwater management rebates, visit [edenprairie.org/waterrebates](http://edenprairie.org/waterrebates)

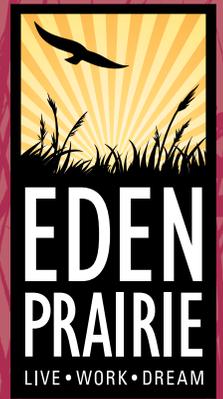
If watershed district rules require you to design and implement a **Stormwater Best Management Practice (BMP)** on your property, contact your watershed district for more information regarding which BMPs meet that requirement. Rebate and cost-sharing programs may be available through the City or watershed district. To protect drinking water, there may be restrictions on the types of BMPs that can be used to recharge groundwater.

Contact the Engineering Division at **952-949-8330** before designing a rain garden or other infiltrating BMP. The **Minnesota Pollution Control Agency's Stormwater Manual** ([stormwater.pca.state.mn.us](http://stormwater.pca.state.mn.us)) is a great resource and has more information on design standards and additional BMPs.

For more useful stormwater management information, visit [edenprairie.org/stormwater](http://edenprairie.org/stormwater).

# Working Together

## TO PROTECT STORMWATER PONDS



### Stormwater ponds and wetlands are designed to intercept and treat stormwater.

Algae blooms or aquatic plants in ponds and lakes need nutrients to grow. Pollutants or nutrients entering a pond through stormwater runoff can lead to large algae blooms, excess plant growth or even hurt wildlife.



An overabundance of plant and algae growth may inhibit a stormwater pond's function and degrade the pond's water quality. More importantly, however, the degradation of a stormwater pond results in polluting the watershed, or drainage area, around a lake, creek, wetland or pond. This negatively affects water quality, which has an adverse effect on plant and animal life, and decreases the recreational potential for lakes and creeks.

### Property Owner Responsibility

- Pick up or rake up trash, leaves and grass from yards, streets and curbs.
- Never dispose of yard waste (or anything else) into ponds and storm drains – the waste contains phosphorus, which causes plants and algae to grow.
- Use biodegradable soaps for outdoor cleaning or car washing
- Sweep driveways and sidewalks instead of hosing them off.
- Pick up pet waste and dispose of it in the trash.
- Maintain healthy sod and grass to limit erosion. Re-seed or re-sod all bare areas to keep stormwater from washing soil particles, which also contain phosphorus, into a storm sewer or pond.

### City Responsibility

The City does not treat stormwater ponds or wetlands for algae, weeds, odors or other aesthetic problems, however the City is responsible for the following tasks:

- Maintenance of the "hydraulic and treatment function" of water resources that are located within City-owned property, drainage or utility easements.
- Removal of sediment accumulation, obstructions and debris that impede the flow of water, and clearing clogged stormwater pipes.

### Pollutants that should not be washed into our ponds include:

- Lawn-care products such as fertilizers or pesticides
- Animal debris or waste
- Lawn clippings
- Oils, greases and automotive additives
- Dust and dirt from construction, streets or rainfall
- Wind-blown chemicals

### CITY RESOURCES

#### Utilities Division

Assistance with repairs  
952-949-8530

#### Engineering Division

Drainage concerns  
Boundary locations  
952-949-8330

#### Environmental Coordinator

Vegetation management  
permit application  
Report dumping of pollutants  
such as motor oil or paint  
952-949-8327

### WEB-BASED RESOURCES

#### Department of Natural Resources

[dnr.state.mn.us/waters](http://dnr.state.mn.us/waters)

#### Department of Agriculture

[mda.state.mn.us/protecting](http://mda.state.mn.us/protecting)

#### Hennepin County

[hennepin.us](http://hennepin.us)

#### University of Minnesota Extension

[extension.umn.edu](http://extension.umn.edu)

#### Blue Thumb

[bluethumb.org](http://bluethumb.org)



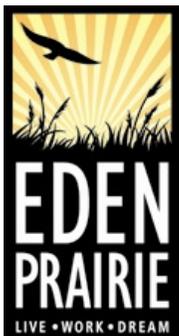
For more information about protecting our environment in Eden Prairie, visit [edenprairie.org/livinggreen](http://edenprairie.org/livinggreen).

Engineering Division & Public Works Department

# Enforcement Response Procedures

for

## MS4 Permit Violations



City of Eden Prairie

2015



Under the terms of the General NPDES/SDS Permit MNR040000, the City of Eden Prairie is required to develop and implement enforcement authority for construction activities that take place within the boundaries of the Municipal Separate Storm Sewer System (MS4). The purpose of this Enforcement Response Plan (ERP) is to communicate how enforcement tools can be used to achieve compliance. The Enforcement Response Plan also specifies criteria by which City personnel can determine the enforcement action most appropriate to instances of non-compliance. This plan outlines the City procedures that can be followed when construction stormwater, illicit discharge or post-construction violations are discovered. This plan is a guide; any of the enforcement responses may be used at the City's discretion. The City may also choose to pursue an enforcement case by skipping intermediate steps.

## **I. Description of Each Type of Enforcement Response**

### **A. Verbal Warnings**

1. Verbal warnings must specify the nature of the violation the required corrective actions and the time frame for correction.
2. Verbal warning may be given at the discretion of the inspector when it appears the condition can be corrected by the violator within a reasonable time.

### **B. Written Notices**

#### **1. Written Warning**

- a) A written warning, either by email or letter, must specify the nature of the violation, the required corrective action time frame for correction and a follow-up inspection date.

#### **2. Notice of Violation (NOV)**

- a) The NOV must specify the nature of the violation, the required corrective action and a follow-up inspection date.
- b) The NOV should require the party committing the violation to submit a Response Plan for the satisfactory correction of the violation and prevention of future violations, including a timeline for specific required actions that will be taken.
- c) The NOV Response Plan must be submitted to the City's Environmental Coordinator.
- d) Submitting the NOV Response Plan does not relieve the party committing the violation of any violations that occurred either before or after the receipt of the NOV. Monetary penalties (civil and administrative penalties) may be assessed for NOV's at the City's discretion.

### **C. Stop Work Orders**

The City of Eden Prairie Engineering or Building Division may issue a stop work order or an order to cease and desist for any person who has violated or continues to violate City Code Chapter 5, Section 5.75 or Chapter 11, Section 11.75, or any permit or order issued hereunder.

1. The violator must comply with the order and must take appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation; except for required measures to clean up the violation, including terminating the discharge and installing appropriate control measures.

2. Monetary penalties (civil and administrative penalties) will be assessed with the cease and desist order, if applicable.

#### D. Citations with Administrative Penalties

1. Consent Order – The purpose of a consent order is to allow for an expedited decision to be made without the time and expense that would be spent on an official administrative hearing to resolve the issue at hand.
  - a) The City will enter into consent orders, assurances of voluntary compliance or other similar documents establishing an agreement with the person responsible for the noncompliance, if needed.
  - b) A consent order will include specific corrective actions to be taken to correct the noncompliance along with a specified time period to finish the corrective actions.
  - c) A consent order has the same force and effect as administrative orders such as the compliance order and the cease and desist order.
2. Compliance Order – The purpose of a compliance order is to remedy a non-compliant behavior or action.
  - a) When the City finds that any person continues to violate the City’s ordinance(s), a permit issued under the ordinance or an order issued hereunder, a compliance order may be issued to the violator directing that, following a specific time period, adequate structures or devices be installed and/or procedures implemented and properly operated.
  - b) Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the construction of appropriate structures, installation of devices, self-monitoring and management practices.
  - c) Monetary penalties (civil and administrative penalties) will be assessed with the compliance order.

#### E. Suspension, Revocation or Modification of Permit

1. The City may suspend, revoke or modify the permit authorizing the land development project or any other project of the applicant or other responsible person within the City if the permit was issued in error or on the basis of incorrect information, or if the work is in violation of any provision of this Section or any Ordinance or Regulation.
2. A suspended, revoked or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the Notice of Violation or has otherwise cured the violation(s) described therein, provided such permit may be reinstated upon such conditions as the City may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violation(s).

#### F. Additional Measures

1. Civil Penalties

- a) The City may declare that any person violating the provisions of this chapter may be assessed a civil penalty by the City.
- b) The City would consider the following in assessing civil penalties for violations:
  - (1) The harm done to the public health or the environment;
  - (2) Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;
  - (3) The economic benefit gained by the violator;
  - (4) The amount of effort put forth by the violator to remedy this violation;
  - (5) Any unusual or extraordinary enforcement costs incurred by the municipality;
  - (6) The amount of penalty established by ordinance or resolution for specific categories of violations; and
  - (7) Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.

## 2. Recovery of Damages and Costs

In addition to civil penalties, the City may recover:

- a) All damages proximately caused by the violator to the City, which may include reasonable expenses incurred in investigating violations of, and enforcing compliance with, this chapter, or any other actual damages caused by the violation.
- b) The costs of the City's maintenance of stormwater facilities when the user of such facilities fails to maintain them as required by this chapter.

## 3. Financial Security

- a) The City may act against a financial security, if one has been obtained, to recover costs or take corrective actions as required to abate violations.

## 4. Legal Action/Other Remedies

- a) The City may bring legal action to enjoin the continuing violation of this chapter. Pursuant to the City's ordinance, the City may, through the City Attorney, petition the appropriate court(s) for issuance of preliminary or permanent injunctions to restrain or compel activities by an owner.

## II. NPDES Permit Referrals

- A. For a project site involving a construction activity or an industrial stormwater discharge where the discharge should be covered by a state NPDES permit, and the site does not have a state NPDES permit, the City would notify the MPCA about this discharge. The following information should be supplied to the MPCA:
  - 1. Construction project or industrial facility location;
  - 2. Name of owner and/or operator;
  - 3. Estimated project size or type of industrial activity (including SIC code if known); and

4. Records of communication with the owner or operator regarding filing requirements.
- B. Where the City has used progressive enforcement to achieve compliance with this chapter and in the judgment of the City has not been successful, the City may refer the violation to the MPCA. For the purposes of this provision, “progressive enforcement” shall mean two (2) follow-up inspections and two (2) warning letters. The following information must be supplied to the MPCA:
1. Construction project or industrial facility location;
  2. Name of owner or operator;
  3. Estimated project size or type of industrial activity (including SIC code if known); and
  4. Records of communication with the owner or operator regarding the violation, including responses from the owner and/or operator.

### **III. Recordkeeping & Tracking**

- A. All non-compliance instances must be tracked either electronically or using paper files. This tracking must include all records and documents related to City ordinance violations at the site and should be stored in the project file.
- B. The minimum required documentation must include the following items:
1. Name of owner/operator;
  2. Location of construction project or industrial facility;
  3. Description of violation;
  4. Required schedule for returning to compliance;
  5. Description of enforcement responses used, including escalated responses if repeat violations occur or violations are not resolved in a timely manner;
  6. Accompanying documentation of enforcement response (e.g., notices of noncompliance, notices of violation, etc.);
  7. Any referrals to different departments or agencies; and
  8. Date violation was resolved.
- C. For best management practices (BMPs) on public property or within public rights-of-way, the City must document that appropriate maintenance and/or repairs have been completed (e.g., using photos, maintenance logs, contractor invoices).
- D. The City must keep any closed files related to enforcement for a minimum of three (3) years consistent with the MS4 General Permit conditions. However, file retention time may be longer if required by law.

### **IV. Enforcement Action Matrices (EAM)**

- A. The EAM for noncompliance with Construction Requirements are summarized in Table 1.

**Table 1. Enforcement Action Matrix for Noncompliance with Construction Requirements.**

	TYPE OF VIOLATION					
<p><b>Enforcement Measures For Use</b> (Increasing in Severity Moving Down the Chart)</p> 	<p><b>Failure to Obtain Land Alteration Permit Prior to Starting Work</b></p>	<p><b>Minor Violations (Failure to Install, Maintain or Upgrade Measures on Erosion and Sediment Control Plan)</b></p>	<p><b>Minor Violations (Failure to Install, Maintain or Upgrade Measures on Erosion and Sediment Control Plan for a Priority Area)</b></p>	<p><b>Major Violation (Failure to Install, Maintain or Upgrade Measures on Erosion and Sediment Control Plan that Resulted in a Sediment Release from the Project Site)</b></p>	<p><b>Repeat Violation by a Party (Same Site)</b></p>	<p><b>Repeat Violation by a Party (Different Site than initial Noncompliance Site)</b></p>
	<p>Cease and Desist Order or Consent Order</p>	<p>Verbal and/or Written Warning</p>	<p>Verbal and/or Written Warning</p>	<p>Notice Of Violation and/or Verbal or Written Warning</p>	<p>Notice Of Violation and/or Verbal or Written Warning</p>	<p>Notice Of Violation and/or Verbal or Written Warning</p>
		<p>Notice Of Violation</p>	<p>Notice Of Violation</p>	<p>Compliance Order or Consent Order</p>	<p>Compliance Order or Consent Order</p>	<p>Compliance Order or Consent Order</p>
	<p>Legal Action</p>	<p>Cease and Desist Order or Consent Order</p>	<p>Cease and Desist Order or Consent Order</p>	<p>Suspension, Revocation or Modification of Permit</p>	<p>Suspension, Revocation or Modification of Permit</p>	<p>Suspension, Revocation or Modification of Permit</p>
		<p>Suspension, Revocation or Modification of Permit</p>	<p>Suspension, Revocation or Modification of Permit</p>	<p>Legal Action</p>	<p>Legal Action</p>	<p>Legal Action</p>
		<p>Legal Action</p>	<p>Legal Action</p>			

This plan is a guide; any of the enforcement responses may be used at the City’s discretion and the City may choose to escalate an enforcement case by skipping intermediate steps. Penalties (Civil, Recovery of Damages and Costs, Etc.) may be assessed as described in the stormwater ordinance and as allowed by law at the City’s discretion.

B. The EAM for Failure to Remove Illicit Discharges is summarized in Table 2.

**Table 2. Enforcement Action Matrix for Failure to Remove Illicit Discharges.**

	TYPE OF VIOLATION		
	<b>First Failure to Remove Illicit Discharge</b>	<b>Repeat Violation by a Party (Same Site)</b>	<b>Repeat Violation by a Party (Different Site than initial Noncompliance Site)</b>
<p><b>Enforcement Measures For Use</b> (Increasing Severity Moving Down the Chart)</p> 	Verbal and/or Written Warning	Notice Of Violation and Verbal and/or Written Warning	Notice Of Violation and Verbal Warning and/or Written Warning
		Compliance Order or Consent Order	
	Notice Of Violation	Cease and Desist Order or Consent Order	Compliance Order or Consent Order
	Compliance Order or Consent Order	Legal Action	Cease and Desist Order or Consent Order
	Cease and Desist Order or Consent Order		Legal Action
	Legal Action		

This plan is a guide; any of the enforcement responses may be used at the City's discretion and the City may choose to escalate an enforcement case by skipping intermediate steps. Penalties (Civil, Recovery of Damages and Costs, Etc.) may be assessed as described in the stormwater ordinance and as allowed by law at the City's discretion.

C. The EAM for Noncompliance with Post-Construction Requirements is summarized in Table 3.

**Table 3. Enforcement Action Matrix for Noncompliance with Post-Construction Requirements**

	TYPE OF VIOLATION		
	First Post-Construction Noncompliance Issue	Repeat Violation by a Party (Same Site)	Repeat Violation by a Party (Different Site than initial Noncompliance Site)
<p><b>Enforcement Measures For Use</b> (Increasing Severity Moving Down the Chart)</p> 	Verbal and/or Written Warning	Notice Of Violation and Verbal and/or Written Warning	Notice Of Violation and Verbal Warning and/or Written Warning
		Compliance Order or Consent Order	
	Notice Of Violation	Cease and Desist Order or Consent Order	Compliance Order or Consent Order
	Compliance Order or Consent Order	Legal Action	Cease and Desist Order or Consent Order
	Cease and Desist Order or Consent Order		Legal Action
	Legal Action		

This plan is a guide; any of the enforcement responses may be used at the City’s discretion and the City may choose to escalate an enforcement case by skipping intermediate steps. Penalties (Civil, Recovery of Damages and Costs, Etc.) may be assessed as described in the stormwater ordinance and as allowed by law at the City’s discretion.

# City of Eden Prairie Stormwater Inventory, Inspection and Maintenance Plan

Revised April 2015



The City of Eden Prairie will identify and maintain the City's stormwater management system to achieve treatment required by state law and regulations before release to receiving waters of the State. The City completed this Stormwater Facility Inspection and Maintenance Plan to fulfill the requirements of the Schedule of Compliance (SOC) signed January 28, 2010.

## 1.0 BACKGROUND

The City adopted a Local Water Management Plan (LWMP) in 2004 to provide a summary of the City's water resource management goals, strategies and policies and to establish a budget for the stormwater utility fund from 2005-2014. The LWMP was revised in December of 2008 after the Nine Mile Creek Watershed District completed their Water Management Plan update. The Capital Improvement Program budget was revised in June 2010 to provide a plan for 2011-2015 projects.

The LWMP included a set of Maintenance Guidelines that were added to the CIP and implemented by Public Works staff in 2004. These guidelines included:

- Stormwater Pond Inspections - Ponds to be inspected on a rotating schedule every 3 to 5 years. Known "hot spots" were to be identified and inspected as-needed. An inspection checklist was developed to document the inspection results.
- Street and Parking Lot Sweeping – Sweeping to be done annually or as needed in critical areas such as new construction sites. Streets to be swept once following snowmelt. Street maintenance areas (such as seal coated streets) to be swept after maintenance is completed.
- Catch Basin Inspection, Cleaning and Repair – Catch basins to be inspected on a rotating schedule every 6 to 7 years based on the seal coat and overlay rotation for roads.
- Sump Catch Basin Inspection, Cleaning and Repair – Sump catch basins to be inspected annually and cleaned as needed to prevent encroachment of sediment and debris or when sumps are ½ full or more.
- Sediment Removal – To occur as needed based on the results of the inspection program.
- Televising, Jetting and Repair of Storm Sewers and Culverts – To be performed based on the results of the annual inspections or as needed at the discretion of the City.

These requirements were developed prior to implementation of the City's Stormwater Pollution Prevention Plan and were used as a guideline to develop the inspection and maintenance program that is followed today. The procedures the City will use going forward are provided in this Plan.

## 2.0 GIS INFORMATION / DEFINITIONS (SWPPP BMP 3A-1 / PART V.G.3.A)

The City has a number of water bodies, stormwater facilities and stormwater infrastructure that are included in our inspection and maintenance program. The City is currently transferring this data into

our GIS system (ArcView) in order to allow the city to more efficiently track our stormwater management system.

Please note, the layers provided are in most cases plotted based on the use of aerial photography, visual observations and 2-foot contour (LIDAR) data. The shapes, locations or sizes may not be accurately represented in every case. The data is updated as more information is made available.

The current layers and the features within each GIS layer include:

### 2.1 Infiltration BMP Layer

- Filtration basins – A shallow basin or sand filter with engineered or amended soil and an under drain system. The basin detains stormwater and allows it to infiltrate through the soil, sand or engineered media. Treated stormwater is directed to the receiving water via the under drain system. The basin may be landscaped.
- Infiltration basins – A shallow basin in permeable soils that detain and infiltrate stormwater. There is rarely an under drain system unless needed to provide maintenance access.
- Depressions – This includes shallow depressions at the end of a stormwater pipe or flared end section that acts as a stormwater infiltration area but was not designed or constructed.

### 2.2 Constructed Ponds Layer

- Dry retention basins – A shallow, dry basin with an outlet at the invert of the basin. Dry retention basins are constructed to attenuate peak discharges and temporarily detain runoff to promote sedimentation.
- Wet detention basins – A shallow basin that maintains a permanent pool of water by using an elevated outlet control structure. Stormwater is treated through sedimentation and biological uptake of pollutants.
- Swales, filter strips and ditches - Linear channels that are vegetated to assist in decreasing runoff velocity and promote infiltration and physical filtration. Some may incorporate rock checks to reduce the slope of the channel. These are included in this layer if it is known to be a man-made feature in an area where there were no wetlands historically.

### 2.3 Stormwater Wetlands Layer

- Stormwater wetlands – A natural wetland or creek segment that has been modified to receive and treat stormwater discharges. Stormwater is treated primarily through biological uptake.
- Swales, filter strips or ditches – Linear channels that are vegetated to assist in decreasing runoff velocity and promote infiltration and physical filtration. Some may incorporate rock checks to reduce the slope of the channel. These are included in this layer if it is known to be within an area that was historically wetland or if it is not known if it is a man-made feature at the time it was mapped.

## 2.4 Lakes Layer

- Lakes – Larger bodies of water or deepwater aquatic habitats that have been defined as lakes by the City and/or Minnesota Department of Natural Resources. Each lake has been found to have a number of stormwater inlets.

## 2.5 Mitigation Wetlands Layer

- Mitigation wetlands – A wetland constructed for replacement of wetlands lost due to construction or alteration of the landscape. These wetlands typically have stormwater discharges routed to the basin to maintain hydrology.

## 2.6 Plotted Layers

The layers indicated as “plotted” are located by the use of visual observations, aerial photography review and LIDAR data. All of these locations are approximate. As the points are found and GPS'd they are added to the master storm layers (Section 2.7).

- Plotted Inlets – An outfall into a water body or stormwater basin. This may be a piped inlet or an overflow channel.
- Plotted Outlets – The point of discharge from a water body or stormwater basin. This may be a piped outlet or a channel.
- Plotted Storm Lines – These are stormwater pipes or overland flow channels within the stormwater system.

## 2.7 Master Storm Layers

The Master Storm layers are generated after a field location and survey is completed with GPS. Some GPS points are labeled as “MIA” to indicate that a structure is present based on review of the development plans but was not located in the field at the time of the GPS survey. This would include submerged structures that would not typically be accessible during a field inventory.

- Master Storm Points – There are a number of structures included in this layer, including catch basins, control structures, flared ends, overland inlets, pond inlets (outfalls), pond outlets, storm manholes, sump manholes, surge basin inlets and water quality structure. These are structures that have been located and surveyed using GPS. Information is added as it is surveyed where data is available. The attribute table includes type, elevation, installation date if known, as-built number if available, and invert elevation if it is noted on the as-built.
- Master Storm Lines - If the connection points have been surveyed with GPS and the stormwater line locations are verified using as-builts or construction plans, the lines are included in this layer. The attribute table includes data such as type, pipe size, date installed and invert elevation if known.

### **3.0 ANNUAL INSPECTION PROGRAM (SWPPP BMP 6B-3 / PART V.G.6.B.3)**

Stormwater facilities should be routinely inspected to ensure they continue to function as designed. The guidelines set forth below were developed to provide City staff with practical tools to inspect and maintain the stormwater infrastructure.

#### 3.1 Water Body Inspections

The annual inspection program includes inspection of 20% of known outfalls, sediment basins and/or ponds that are under City ownership and/or drainage and utility easements. The City's current Water Body Inspection Worksheet is attached to this letter for reference. The basic inspection requirements include observations for items such as:

- Trash, debris, animal burrows, algae, vegetation density, vandalism and odors
- Obstructions of inlets, outlets and pipes by trash, debris or vegetation growth
- Cracks or deterioration of inlets, outlets and pipes
- Malfunctioning valves, gates, locks or access hatches, if present
- Inadequate outlet protection
- Distressed aquatic or shoreline vegetation
- Overgrowth of weeds, grasses or woody plants that are blocking effective stormwater flow
- Excessive erosion or sedimentation
- Depth of sediment, if any
- Cracks or settling in the embankment or berms
- Potential spills or releases of hazardous substances, illegal dumping or illicit discharges.

All potential releases or evidence of illicit discharges are to be reported to the Fire Department and/or Utilities staff immediately. If a hazardous chemical spill or release is identified, the inspector must first call 911 immediately. The incident should be reported to the State Duty Officer if required as soon as possible.

#### 3.2 Structure Inspections

Regular inspections are also done for catch basins, manholes and closed conduits (see Section 4.6). Many of these are conducted during seal coat or overlay projects. Seal coat projects are typically every 7 to 8 years and overlay projects every 14 to 16 years. Structures are inspected on the following schedule.

- Catch basins - Catch basin castings and grates are checked for debris and repair needs on a rotating schedule based on seal coat and/or overlay rotation for roads or as needed during flood events.
- Sump catch basins and sump manholes – The City has switched to salt-only for most winter operations. As such, the need for cleaning sumps has decreased. Each sump is inspected a minimum of once every three to four years to determine if the catch basin needs to be repaired or pumped. Sumps within a planned development are also checked within one year after completion of a development to determine if cleaning is required.

- Closed conduits - Video inspections are conducted as needed or as complaints are received.
- Pumped outlets / lift stations - If an outlet is pumped, an inspection of the pumping equipment is conducted annually.
- Manholes – Manholes are checked for damage or missing block and mortar on a rotating schedule based on seal coat and/or overlay rotation for roads.

### 3.3 Reporting & Record-Keeping

All documentation on scheduled inspections and any recommendations for maintenance are submitted to the Department of Public Works for review. Observations made at the time of inspection are entered into the City's MS4 Database which was completed for BMP 6b-6 and work orders are prepared as needed for maintenance or repairs.

### **4.0 MAINTENANCE PROGRAM (SWPPP BMP 6B-5 / PART V.G.6.B.5 & SOC PART 7.3)**

Results of the inspection program (Section 3) are used to determine routine and emergency maintenance needs. The budget for 2015-2024 includes \$3,171,000 for maintenance and repairs, including those associated with drainage or road projects and general stormwater improvements. Emergency repairs would include items such as imminent structure failure or a suspicious discharge that would require that the responsible party be notified to take immediate action to remedy the problem. Routine maintenance is to be performed as needed based on the following criteria. Additional maintenance needs, such as pond dredging, will be scheduled in accordance with Section 6.0 of this plan (SOC Part 7.3).

#### 4.1 Detention Ponds / Retention Ponds / Stormwater Wetlands

Ponding areas and stormwater wetlands provide storage for surface water runoff and are managed to allow for free flow of stormwater through the system. The basins also reduce peak stormwater flows, promote settling of suspended pollutants and reduce velocities downstream of the outlet structure. The basin may also promote biological uptake of pollutants if vegetated. If problems are identified during the inspection a Work Order would be prepared in accordance with the following guidelines.

- Mow grass side slopes if required to maintain safe sight distances for traffic or pedestrians to a maximum height of 8" a minimum of once per year.
- Clean out sediment around inlets and outlets when accumulation reaches more than twelve (12) inches and re-seed as needed.
- Cleanout pond sediment accumulation in accordance with Section 6 of this Plan. Sediment would also be cleaned out as needed during road reconstruction or drainage improvement projects.
- Stabilize and re-seed banks near inlet when erosion gullies are more than one foot deep.
- Remove vegetation that obstructs flow.
- Correct bank erosion if significant contribution to sediment within the pond or it is greater than one foot deep.

#### 4.2 Infiltration Basins

Infiltration basins use natural filtering ability of the soil to remove pollutants from stormwater runoff. If problems are identified during the inspection a Work Order would be prepared in accordance with the following guidelines.

- Replace surface soil or vegetation as needed to maintain a layer of permeable soil or a dense cover of non-woody vegetation in the base of the infiltration area.
- Correct any structural deficiencies that interfere with the function of the basin.
- Remove undesirable vegetation, such as woody vegetation.

#### 4.3 Swales / Filter Strips / Ditches

Swales or ditches are constructed to direct or convey stormwater runoff. They should be planted with vegetation that will maintain the structure and resist erosion. If problems are identified during the inspection a Work Order would be prepared in accordance with the following guidelines.

- Cleanout sediment when it blocks culverts or obstructs the pipe or flow of stormwater.
- Stabilize and re-seed when erosion gullies are more than one foot deep.
- Mow to remove vegetation that obstructs flow and to maintain desirable vegetation.

#### 4.4 Inlet / Outlet Structures

These structures are used to regulate storm water flow, including discharge from detention basins into receiving waterways or an offsite storm sewer system. They can also remove pollutants such as suspended solids, nutrients and metals from stormwater runoff. If problems are identified during the inspection a Work Order would be prepared in accordance with the following guidelines.

- Remove any trash, debris or vegetation that impedes the flow of stormwater.
- Remove sediment if accumulation reaches more than twelve (12) inches or if it blocks the flow of water through the water body.
- Stabilize and re-seed banks near structures when erosion gullies are more than one foot deep.

#### 4.5 Sump Catch Basins / Sump Manholes

Sump catch basins and sump manholes are constructed with a sump structure for collection of sediment and debris. If problems are identified during the inspection a Work Order would be prepared in accordance with the following guidelines.

- Clean when the structure is more than  $\frac{3}{4}$  full.
- Replace damaged or missing block and mortar when identified if the damage is impeding or short-circuiting the function of the catch basin.

#### 4.6 Closed Conduits / Catch basins / Manholes

Closed conduits are conveyances designed to carry storm water runoff and include culverts, closed drains, and pipes. Catch basins are below ground structures designed to collect and convey water into the storm sewer system and are typically located in roadways and boulevards within a development. The manholes are present to allow access to a closed conduit. If problems are identified during the inspection a Work Order would be prepared in accordance with the following guidelines.

- Clean or repair closed conduits, catch basins and manholes as needed.
- Clean problem areas identified during the inspection as needed.

#### **5.0 TREATMENT EFFECTIVENESS EVALUATION – INSPECTIONS (SOC Part 7.2.b)**

Schedule of Compliance (SOC) Part 7.2.b includes a requirement for submittal of a plan to assess the treatment effectiveness of the stormwater basins and ponds within the City's stormwater system (SOC evaluation). The first step for this plan included a Request for Proposal that was reviewed by the MPCA and approved by the City Council on April 20, 2010. Information for the treatment effectiveness evaluation will be collected independently of the program described in Section 3 above. However, this will include a visual inventory of each basin evaluated during the field visit.

The City's current stormwater inventory includes more than 900 constructed ponds, wetlands, mitigation wetlands, infiltration BMPs and creek segments that receive stormwater. For the purposes of the SOC evaluation the City was divided up into a number of subwatersheds centering on lakes or creeks. Stormwater ponding areas (constructed ponds, infiltration BMPs and stormwater wetlands) that are either within a drainage easement, on public land or receive public drainage will be evaluated. When the SOC evaluation is completed the entire city will be included in the assessment program (See Table 1).

The RFP developed for the scope of work for 2009-10 is attached to this Plan. The current scope of work for the SOC evaluation includes analysis of not only individual water basins but also of the impact of the system on the receiving water to assist with overall planning and prioritization of resources within these areas. Key elements of the SOC evaluation will include the following.

- Review of as-built and/or grading plans, if available.
- Use of survey equipment to estimate sediment depth.
- Comparison of existing conditions with as-built information.
- Calculation of the pond volumes for constructed stormwater ponds that includes both the water quality volume and permanent pool volume based on pond geometry and inlet; outlet (invert or outlet control); emergency overflow; overflow spillway; and/or flood elevations.
- Calculation of the load-based removal efficiency (%).
- Determination of which ponds need sediment removal (based on sedimentation of 50% or more of the original volume reduction capacity).
- Analysis of the treatment effectiveness of ponds which are located within the study area to determine whether opportunities exist to upgrade functionality of the ponds in areas where additional treatment may benefit the lake and/or creek.

The program will be evaluated at the end of each year to determine if changes to the scope of work are needed.

Portions of the City were previously evaluated by two of the City's Watershed Districts (Nine Mile Creek and Riley-Purgatory-Bluff Creek Watershed Districts) for development of Use Attainability Analyses (UAAs) and are currently undergoing a number of water quality improvement projects. These areas are given a lower priority in the list.

Staring Lake was selected as the first project area due to the work currently being done by the Riley-Purgatory-Bluff Creek Watershed District (RPBCWD) and the fact that no UAA was completed for the watershed. The District initiated a carp population study within Staring Lake in 2010. The City's work will serve to supplement the water quality improvements that will be realized by reducing the carp population. Additionally, Wenck will analyze each selected ponding area to determine if opportunities exist to enlarge or upgrade the functionality of ponding areas where additional treatment may benefit the lake or Purgatory Creek.

The proposed schedule summarized in Table 1 below is for 2014-2023. As the program moves forward, the City will evaluate budget needs to complete the project annually.

Table 1. Treatment Effectiveness Evaluation Schedule

<b>Year</b>	<b>Watershed</b>	<b>Pollutant or Stressor *</b>		<b>Comments</b>
2014-15	Mitchell Lake	Nutrients / Eutrophication		Will update the inventory in partnership with the Watershed District.
2017-2018	Purgatory Creek	Not listed		To evaluate system for those areas not within a lake watershed.
2017	Round Lake	Not listed		Will update the inventory in partnership with the Watershed District.
2018-19	Grass and Rice Lakes	Not listed		Minnesota River floodplain lakes. Will work with the Watershed District to evaluate lake needs and evaluate the stormwater system.
2016	Riley / Rice Marsh Lakes	Nutrients / Eutrophication		Will update the inventory in partnership with the Watershed District.
2022	Lake Smetana	Not listed		Will update the inventory in partnership with the Watershed District.
2020	Birch Island Lakes	Not Listed		Will update the inventory in partnership with the Watershed District.
2021	Bryant Lake	Bryant Lake - Nutrients / Eutrophication		Will update the inventory in partnership with the Watershed District
2023	Anderson Lakes	Not Listed		Includes Northwest and Southwest Anderson Lakes. Will update the inventory in partnership with the Watershed District.

\* Mercury impairments not included in the pollutant or stressor column

After the first round of the City is completed, the program will be evaluated to determine what is required for future inspections. For example, certain areas may be re-evaluated on a 10-year basis as outlined in Table 1 based on operational characteristics while other areas may only be inspected once every 20 years based upon factors such as a low amount of sedimentation experienced at that location.

## **6.0 TREATMENT EFFECTIVENESS EVALUATION - PRIORITIZATION (SOC Part 7.2.b)**

The Treatment Effectiveness Evaluation has the potential to result in a number of deficiencies or repair requirements that would be in addition to the routine maintenance requirements identified in Section 4. To address this potential, a budget has been established to address these issues through 2015.

\*\* Implementation schedule for work identified in the Inspection Program, as required in SOC Subd. 7(3). Future maintenance plans will be established based on the needs identified in the Inspection Program.

To address maintenance needs identified after the assessment is completed; the following will be evaluated to assist in prioritizing project needs in relation to budgetary constraints.

- Funding availability.
- Results of the City's Inspection Program (Section 3.0).
- Location within the watershed's treatment train.
- Programs currently in place.
- Ongoing projects being conducted or planned by the Watershed Districts.
- Impaired Water status of the receiving water.
- Steps needed to alleviate or prevent future water management problems.
- Potential downstream impacts.
- Watershed characteristics.
- Pending or expected TMDLs and TMDL implementation activities.
- Sediment contaminant analysis.

Specific projects within each subwatershed analyzed will be selected when the prioritization analysis is completed. Maintenance needs that are identified but not selected at the time of the prioritization analysis will be reviewed during the next budget cycle.

If you have any questions regarding this Plan, please contact Leslie Stovring, Environmental Coordinator, at 952-949-8327 or [lstovring@edenprairie.org](mailto:lstovring@edenprairie.org).

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Ace Daycare	8098 Glen La	Purgatory Creek	143	BMP - Permeable pavement could be used, or a cut in the pavement that lets water flow into a rain garden.
Ace Daycare (building)	8098 Glen La	Purgatory Creek	222	No BMP is warranted at this time.
Ace Daycare (lot)	8098 Glen La	Purgatory Creek	143 & 222	BMP - Permeable pavement could be used, or a cut in the pavement that lets water flow into a rain garden.
Art Center	7650 Equitable Drive	Purgatory Creek	103	No BMP is warranted at this time.
Art Center (lot)	7650 Equitable Drive	Purgatory Creek	103	No BMP is warranted at this time. Site has a constructed pond.
Birch Island Park	6225 Eden Prairie Road	Ninemile Creek	581	BMP - If there are pollutants from the adjacent road, a curb cut and rain garden could be added.
Birch Island Woods	6410 Indian Chief Road	Ninemile Creek		No BMP is warranted at this time.
Birch Island Woods (lot)	6410 Indian Chief Road	Ninemile Creek	578	No BMP is warranted at this time. Site already has a BMP (impervi
Bluffs West 1	10458 Devonshire	Purgatory Creek	444	No BMP is warranted at this time.
Bluffs West 2	10292 Edinburgh Circle	Eagle Creek - Minnesota River	445	No BMP is warranted at this time.
Building 51	11800 Technology Dr	Purgatory Creek	133	No BMP is warranted at this time.
Camp Edenwood	6350 Indian Chief Road	Ninemile Creek	581 & 524	No BMP is warranted at this time.
Camp Edenwood (barn)	6350 Indian Chief Road	Ninemile Creek	524	No BMP is warranted at this time.
Camp Edenwood (Birch Hall)	6350 Indian Chief Road	Ninemile Creek	524	No BMP is warranted at this time.
Camp Edenwood (Birchwood)	6350 Indian Chief Road	Ninemile Creek	581	No BMP is warranted at this time.
Camp Edenwood (Boulay)	6350 Indian Chief Road	Ninemile Creek	524	No BMP is warranted at this time.

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Camp Edenwood (Holasek House)	6350 Indian Chief Road	Ninemile Creek	524	No BMP is warranted at this time.
Camp Edenwood (Lions Den)	6350 Indian Chief Road	Ninemile Creek	524	No BMP is warranted at this time.
Camp Edenwood (Main Meeting Building)	6350 Indian Chief Road	Ninemile Creek	524	No BMP is warranted at this time.
Camp Edenwood (Maintenance Building)	6350 Indian Chief Road	Ninemile Creek	524	No BMP is warranted at this time.
Camp Edenwood (South Lodging)	6350 Indian Chief Road	Ninemile Creek	581	No BMP is warranted at this time.
Cardinal Creek	12828 Gerard Drive	Ninemile Creek	590	No BMP is warranted at this time.
Carmel Park	11610 Tyrell Drive	Ninemile Creek	500, 496, 508, 502	BMP - Ensure that fertilizer or pesticides don't enter the storm water system.
Carmel Park (lot)	11610 Tyrell Drive	Ninemile Creek	502	BMP - The parking lot could be repaved with permeable pavement.
City Center	8080 Mitchell Road	Purgatory Creek	29	Site already has a BMP.
City Center (lot)	8080 Mitchell Road	Purgatory Creek	29	BMP - There are a couple areas in the lower lot where rain gardens could be constructed in the median
Community Center	16700 Valley View Road (55346)	Purgatory Creek	410, 404	BMP - Runoff from the roof top could be better directed to flow into the constructed pond behind the building, especially when the new addition is complete.
Community Center (lot)	16700 Valley View Road	Purgatory Creek	410	BMP - There are several areas where rain gardens could be constructed in the median
Community Garden Plots (Pioneer Park)	8940 Sutton Road	Purgatory Creek	225, 338	No BMP is warranted at this time.
Community Garden Plots (Pioneer Trail)	13180 Pioneer Trail	Purgatory Creek	445	No BMP is warranted at this time.
Complete Nutrition	8020 Den Road	Ninemile Creek	232	No BMP is warranted at this time. It would be difficult to add rain gardens on this site due to the size of the trees.
Creekwood Park (lot)	12341 Sunnybrook Road	Purgatory Creek	446	BMP - Permeable pavers could be added to the parking lot.
Creekwood Park	12341 Sunnybrook Road	Purgatory Creek	446	BMP - Permeable pavers could be added to the parking lot.

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Crestwood Park	9780 Dell Road	Riley Creek	452	Site already has wetlands for controlling water runoff.
Crestwood Park (lot)	9780 Dell Road	Riley Creek	452	Site already has wetlands for controlling water runoff.
Crestwood Park (shelter)	9780 Dell Road	Riley Creek	452	Site already has wetlands for controlling water runoff.
Cummins-Phipps-Grill Home	13600 Pioneer Trail	Purgatory Creek	602	No BMP is warranted at this time.
Dorenkemper House	9090 Riley Lake Road	Riley Creek	400	No BMP is warranted at this time.
Eden Lake Park	11700 Anderson Lakes Parkway	Purgatory Creek	237, 248	No BMP is warranted at this time.
Eden Lake Park (lot)	11700 Anderson Lakes Parkway	Purgatory Creek	237	No BMP is warranted at this time.
Eden Prairie Art Center	7650 Equitable Drive	Purgatory Creek	-	-
Eden Prairie Community Center	16700 Valley View Road	Purgatory Creek	410, 404	Site already has a constructed pond.
Eden Valley Park	16600 Duck Lake Trail	Purgatory Creek	324, 317, 186	No BMP is warranted at this time.
Eden Valley Park (lot)	16600 Duck Lake Trail	Purgatory Creek	324	No BMP is warranted at this time.
Edenbrook	6655 Dell Road	Purgatory Creek	344	No BMP is warranted at this time.
Edenbrook (lot)	6655 Dell Road	Purgatory Creek	344	No BMP is warranted at this time.
Edenvale	7300 Edenvale Boulevard	Purgatory Creek	344	BMP - Check water quality at the outlets from the neighborhoods to see the impact of the neighborhoods on the quality of storm water.
Edenvale Park	7200 Edenvale Blvd	Purgatory Creek	224	No BMP is warranted at this time.
Edenvale Park (shelter)	7200 Edenvale Boulevard	Purgatory Creek	203	No BMP is warranted at this time.

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Edgewood	6950 Edenvale Boulevard	Purgatory Creek	224	No BMP is warranted at this time.
Edgewood (lot)	6950 Edenvale Boulevard	Purgatory Creek	224	No BMP is warranted at this time. The lot is gravel and slopes away from the street.
Encore Boutique	8022 Den Road	Ninemile Creek	232	No BMP is warranted at this time. It would be difficult to add rain gardens on this site due to the size of the trees.
Fire Station 1	14800 Scenic Heights Rd	Purgatory Creek	27 & 31	No BMP is warranted at this time. Any pollutants in the building are mitigated by catch basins and special holding tanks.
Fire Station 2	12100 Sunnybrook Rd	Purgatory Creek	446	BMP - Gutters and a rain garden could be added, repaving parking lot and sloping it into a rain garden would be another option.
Fire Station 3	7350 Eden Prairie Rd	Purgatory Creek	410	Site already has a wetland for retaining storm water runoff.
Fire Station 4	17920 Linwood Ct.	Purgatory Creek	430	Site already has a BMP.
Flying Cloud Ballfields	15219 Pioneer Trail	Riley Creek	457 & 3	The site already has a series of rain gardens that handle storm water.
Flying Cloud Dog Park	7171 Flying Cloud Dr	Ninemile Creek	552	No BMP is warranted at this time.
Flying Cloud Dog Park (lot)	7171 Flying Cloud Dr	Ninemile Creek	552	BMP - Pervious pavement could used. There is already a ditch covered in prairie grass that allows most the water to infiltrate before reaching the wetland.
Flying Cloud Fields (east lot)	15219 Pioneer Trail	Riley Creek	457	Site already has a series of rain gardens that collect storm water.
Flying Cloud Fields (lot)	15219 Pioneer Trail	Riley Creek	457	Site already has a series of rain gardens that collect storm water.
Flying Cloud Fields (south lot)	15219 Pioneer Trail	Riley Creek	457	Site already has a series of rain gardens that collect storm water.
Flying Cloud Fields (west lot)	15219 Pioneer Trail	Riley Creek	457	Site already has a series of rain gardens that collect storm water.
Flying Cloud Fields -Expansion (lot)	15219 Pioneer Trail	Purgatory Creek	3	Site already has a series of rain gardens that collect storm water.

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Forest Hills Park	13900 Holly Road	Ninemile Creek	580	The site already has catch basins around the park that lead to a wetland
Forest Hills Park (lot)	13900 Holly Road	Ninemile Creek	580	The lot already has a small wetland that treats storm water before entering the larger wetland.
Forest Hills Park (shelter)	13900 Holly Road	Ninemile Creek	580	No BMP is warranted at this time.
Franlo Park	10245 Franlo Road	Purgatory Creek	444, 601	BMP - Fertilizer, herbicide and lawn mowing routines should be evaluated for the field closest to the road to ensure that no pollutants are carried into the street during a rain event.
Franlo Park (east lot)	10245 Franlo Road	Purgatory Creek	601	BMP - A rain garden could be created in the median of the parking lot.
Franlo Park (west lot)	10245 Franlo Road	Purgatory Creek	444	BMP - A rain garden could be created in the median of the parking lot.
Frederick Miller Spring	9995 Spring Road	Riley Creek	450	BMP - Lay down erosion blankets to reinforce the trail to prevent the soil from being washed away.
Hidden Ponds Park	18300 Twilight Trail	Purgatory Creek	289	BMP - Check inlets and outlets on a scheduled basis. Check quality of water in the wetlands.
Hidden Ponds Park (lot)	18300 Twilight Trail	Purgatory Creek	289	No BMP is warranted at this time.
High Trail Estates	16940 Honeysuckle Lane	Purgatory Creek	324	No BMP is warranted at this time.
Holasek Hill	6395 Pinnacle Drive	Ninemile Creek	486	BMP - Most BMP's would be difficult to implement at this site. Caution should be given to using fertilizers, herbicides (if they're used here) and grass clippings from running off into the street.
Homeward Hills Park	12000 Silverwood Drive	Purgatory Creek	445	BMP - Ensure that any fertilizer or herbicides aren't running off the athletic fields onto the pavement. Ensure that the buffer between the park and wetland is adequate width.
Homeward Hills Park (east lot)	9970 Homeward Hills Road	Purgatory Creek	445	No BMP is warranted at this time.
Homeward Hills Park (west lot)	12000 Silverwood Drive	Purgatory Creek	445	BMP - There could be a curb cut and rocks laid down to help direct the flow into the wetland.
Homewood Hills Park (barn)	12000 Silverwood Drive	Purgatory Creek	445	No BMP is warranted at this time.
Human Services at EP Center	8251 Flying Cloud Drive, Suite 130	Purgatory Creek	N/A	N/A
J. R. Cummins Homestead	13600 Pioneer Trail	Purgatory Creek	602	No BMP is warranted at this time.
James A. Brown	11449 Landing Road	Eagle Creek - Minnesota River	457	No BMP is warranted at this time.

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Lower Purgatory Creek	Riverview Road	Purgatory Creek	457, 444	<p>No BMP is warranted at this time.</p> <p>BMP - Storm water control needed in vicinity of fuel station. Reevaluate the protocol for washing vehicles near storm drains, temporary storage of recycleables and storage of animal carcasses near storm drains.</p> <p>BMP - Sediment runoff into adjacent wetland and has started to fill roughly half of it. Controls are recommended.</p>
Maintenance Facility	15150 Technology Drive	Purgatory Creek	34	
Maintenance Outdoor Storage	9811 Flying Cloud Drive	Riley Creek	457	
Maintenance Outdoor Storage (building)	9811 Flying Cloud Drive	Riley Creek	457	No BMP needed
Maintenance Outdoor Storage (lot)	9811 Flying Cloud Drive	Riley Creek	457	BMP - Sediment runoff into adjacent wetland and has started to fill roughly half of it. Controls are recommended.
Miller Park	17590 Linwood Court	Purgatory Creek	269, 270, 274, 279, 281	BMP - Review the herbicide and fertilizer procedures.
Miller Park (baseball shelter)	16600 Miller Parkway East	Purgatory Creek	269	<p>BMP - Clear drains - sediment from the baseball fields is clogging most drains.</p> <p>BMP - A several inch wide channel could be cut into the pavement to intercept water before flowing into the lake. A metal grate could be placed over to preserve it's structure and functionality. The drain could empty out into an adjacent rain garden.</p> <p>BMP - A rain garden could be created in the median area between the parking lot and the road.</p> <p>No BMP is warranted at this time. Storm water is already handled by the adjacent wetland.</p> <p>BMP - A curb cut and rain garden could be created to allow for water infiltration.</p> <p>BMP - A smaller infiltration BMP could be created to handle water from this lot. Otherwise, there's a wetland that handles almost all the storm water from the park.</p> <p>BMP - Storm water is already handled by a wetland, however the space between the parking lots could be used to create rain gardens. The drains are already positioned in suitable way.</p> <p>BMP - A curb cut and rain garden could be created to allow for water infiltration.</p>
Miller Park (boat ramp/picnic lot)	16900 E. Miller Parkway	Purgatory Creek	439 & 269	
Miller Park (field 12 lot)	16900 Miller Parkway West	Purgatory Creek	269	
Miller Park (field 13 lot)	16900 E. Miller Parkway	Purgatory Creek	269	
Miller Park (field 4-7 overflow lot)	16900 E. Miller Parkway	Purgatory Creek	439 & 269	
Miller Park (field 8 lot)	16900 E. Miller Parkway	Purgatory Creek	269	
Miller Park (fields 1-3 and 4-7 lot)	16900 E. Miller Parkway	Purgatory Creek	269	
Miller Park (fields 9-11 lot)	16900 Miller Parkway West	Purgatory Creek	269	

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Miller Park (ice shelter)	8405 Shoreline Drive	Purgatory Creek	274	No BMP is warranted at this time.
Miller Park (lot)	16900 Miller Parkway	Purgatory Creek	269, 270, 274, 279, 281	BMP - Check water quality of 17-31-A and ensure outlets and inlets are clear.
Miller Park (picnic area lot)	16900 Miller Parkway West	Purgatory Creek	269	BMP - A rain garden could be created in the median area between the parking lot and the road.
Miller Park (play area lot)	16900 Miller Parkway West	Purgatory Creek	269	BMP - A rain garden in the median wouldn't work here but permeable pavement could.
Miller Park (rink lot)	8405 Shoreline Drive	Purgatory Creek	274	BMP - Check inlets and outlets on a scheduled basis. Check quality of water in the wetlands.
Miller Park (softball shelter)	16900 Miller Parkway	Purgatory Creek	269	No BMP is warranted at this time.
Mitchell Marsh	North of Highway 5, east of Dell Road	Purgatory Creek	361, 363, 364	BMP - Sample water quality of the marsh and secondary wetlands to see if there's any water quality issues.
Municipal Liquor 1	16508 West 78th Street	Purgatory Creek	603	This site is not city property
Municipal Liquor 2	8018 Den Road	Ninemile Creek	232	No BMP is warranted at this time. It would be difficult to add rain gardens on this site due to the size of the trees.
Municipal Liquor 3	968 Prairie Center Drive	Purgatory Creek	88	This site is not city property.
Nesbitt Preserve Park	8641 Center Way	Ninemile Creek	595	BMP - Water quality in the wetlands should be examined to measure the impact the neighborhoods are having on it. Caution should be used when applying fertilizer or herbicides onto the athletic fields to ensure the wetlands aren't effected.
Nesbitt Preserve Park (shelter)	8641 Center Way	Ninemile Creek	595	No BMP is warranted at this time.
Nine-Mile Creek	flows into Bryant and into Smetana Lakes	Ninemile Creek		BMP - Storm water could be sampled from the wetlands at different locations to determine the overall water quality as it enters either Smetana or Bryant lake.
Outdoor Center	13765 Staring Lake Parkway	Purgatory Creek	158	No BMP is warranted at this time.
Outdoor Center (building)	13765 Staring Lake Pkwy	Purgatory Creek	158	No BMP is warranted at this time.

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Outdoor Center (lot)	13765 Staring Lake Pkwy	Purgatory Creek	158	No BMP is warranted at this time.
Overlook	9514 Grey Widgeon Place	Purgatory Creek	446	No BMP is warranted at this time. BMP - Caution should be used when applying fertilizer or herbicides onto the athletic fields to ensure the wetlands aren't effected.
Pheasant Woods Park	8420 Mitchell Road	Purgatory Creek	643	
Pheasant Woods Park (lot)	8420 Mitchell Road	Purgatory Creek	643	No BMP is warranted at this time. BMP - The wetlands water quality should be studied to see the impact of the neighborhoods on them.
Pioneer Park	8950 Eden Prairie Road	Purgatory Creek	255	BMP - The catch basin could be replaced with a large rain garden.
Pioneer Park (lot)	8950 Eden Prairie Road	Purgatory Creek	255	
Pleasant Hill Cemetary (lot)	12390 Pioneer Trail	Purgatory Creek	446	No BMP is warranted at this time.
Pleasant Hill Cemetery	12390 Pioneer Trail	Purgatory Creek	446	No BMP is warranted at this time.
Prairie Bluff	10092 Indigo Dr.	Riley Creek	450	No BMP is warranted at this time.
Prairie Bluff Conservation Area (lot)	10092 Indigo Drive	Riley Creek	457	No BMP is warranted at this time. A BMP would be too difficult to implement on this site.
Prairie Bluff Conservation Area (shelter)	10092 Indigo Drive	Riley Creek	457	BMP - There's a ditch on the eastern side of the building where storm water flows into.
Prairie East Park	10379 Balsam Way	Purgatory Creek	601	No BMP is warranted at this time.
Prairie View Park	17255 Peterborg Road (Bldg. 17255)	Purgatory Creek	321, 402	BMP - Ensure that grass clippings from the lawn aren't entering the street.
Prairie View Park (shelter)	17401 Peterborg Road	Purgatory Creek	402, 327	No BMP is warranted at this time
Preserve Park (east lot)	8641 Center Way	Ninemile Creek	595	No BMP is warranted at this time
Preserve Park (west lot)	8641 Center Way	Ninemile Creek	595	No BMP is warranted at this time
Purgatory Creek Park	13001 Technology Drive	Purgatory Creek	119	BMP - Review if/how herbicides or pesticides are used on the site.
Purgatory Creek Park (building)	13001 Technology Drive	Purgatory Creek	119	BMP - Review if/how herbicides or pesticides are used on the site.

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Purgatory Creek Park (building)	13001 Technology Drive	Purgatory Creek	119	BMP - Site already has a adjacent storm water ditch. Caution should be taken when using pesticides or herbicides around the drain in the lawn.
Purgatory Creek Park (lot)	13001 Technology Drive	Purgatory Creek	119	BMP - Another rain garden could be created.
Purgatory Creek Park (shelter)	13001 Technology Drive	Purgatory Creek	119	No BMP is warranted at this time.
Red Rock	15440 Village Woods Drive	Purgatory Creek	338	No BMP is warranted at this time.
Red Rock Park	15416 Boulder Pointe Road	Purgatory Creek	338, 6	BMP - A strip of prairie grasses could be planted along the perimeter that would intercept storm water runoff from the park. BMP - A several inch wide channel could be cut into the pavement to intercept water before flowing into the lake. A metal grate could be placed over to preserve it's structure and functionality. The drain could empty out into an adjacent rain garden.
Red Rock Park (boat ramp/lot)	15416 Boulder Pointe Road	Purgatory Creek	338	BMP - A several inch wide channel could be cut into the pavement to intercept water before flowing into the lake. A metal grate could be placed over to preserve it's structure and functionality. The drain could empty out into an adjacent rain garden.
Red Rock Park (lot)	15416 Boulder Pointe Road	Purgatory Creek	338	
Rice Marsh Lake Park	8266 Erin Bay	Purgatory Creek	360, 436	No BMP is warranted at this time.
Rice Marsh Lake Park (lot)	8266 Erin Bay	Purgatory Creek	436	BMP - The site has potential for a rain garden in the northern corner of the lot.
Richard T Anderson Conservation Area (lower lot)	18700 Flying Cloud Drive	Riley Creek	457	No BMP is warranted at this time.
Richard T Anderson Conservation Area (upper lot)	18700 Flying Cloud Drive	Riley Creek	457	No BMP is warranted at this time.
Richard T. Anderson	18700 Flying Cloud Drive	City of Shakopee - Minnesota River	457	No BMP is warranted at this time.
Riley Creek Woods	9795 Canopy Trail	Riley Creek	449	No BMP is warranted at this time.

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Riley Creek Woods (lot)	9795 Canopy Trail	Riley Creek	449	BMP - Permeable pavement is a good consideration. A small cut in the pavement could be used to redirect storm water into a rain garden.
Riley Lake (boat ramp/building)	9300 Riley Lake Road	Riley Creek	400	BMP - A several inch wide channel could be cut into the pavement to intercept water before flowing into the lake. A metal grate could be placed over to preserve it's structure and functionality. The drain could empty out into an adjacent rain garden.
Riley Lake (shack)	9271 Riley Lake Road	Riley Creek	400	No BMP is warranted at this time.
Riley Lake Park	9180 Riley Lake Road	Riley Creek	400, 396, 397	BMP - Check the water quality of 19-43-B and 19-43-A due to how much water they handle from the Bear Path. Consider adding an intermediate point between the catch basins and the lake near the boat ramp.
Riley Lake Park (barn lot)	9100 Riley Lake Road	Riley Creek	396	No BMP is really needed, however there seems to be a ditch in the middle of the lot that receives some of the storm water. Perhaps when the lot is resurfaced it can be better directed into the ditch. BMP - See boat ramp. A several inch wide channel could be cut into the pavement to intercept water before flowing into the lake. A metal grate could be placed over to preserve it's structure and functionality. The drain could empty out into an adjacent rain garden.
Riley Lake Park (boat lot)	9300 Riley Lake Road	Riley Creek	400	BMP - See boat ramp. A several inch wide channel could be cut into the pavement to intercept water before flowing into the lake. A metal grate could be placed over to preserve it's structure and functionality. The drain could empty out into an adjacent rain garden.
Riley Lake Park (lot)	9100 Riley Lake Road	Riley Creek	396	No BMP is warranted at this time.
Riley Lake Park (overflow lot)	9100 Riley Lake Road	Riley Creek	396	BMP - Permeable pavement could be used, otherwise a couple rain gardens could be created.
Riley Lark Park (shelter)	9100 Riley Lake Road	Riley Creek	400	No BMP is warranted at this time.
Riley-Jacques Barn	9096 Riley Lake Road	Riley Creek	396	Existing BMP - Storm water hitting the barn won't have a negative impact on any storm water systems. The nearby parking lot already has a rain garden.
Riley-Jacques Farm	9100 Riley Lake Road	Riley Creek	400	No BMP is warranted at this time.
Riley-Jacques House	9100 Riley Lake Road	Riley Creek	400	No BMP is warranted at this time.
Round Lake Park	16691 Valley View Road	Purgatory Creek	411	BMP - Check quality of constructed ponds and wetlands that surround the lake.
Round Lake Park (boat house)	16691 Valley View Road	Purgatory Creek	411	No BMP is warranted at this time.

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Round Lake Park (lot)	16691 Valley View Road	Purgatory Creek	411	No BMP is warranted at this time.
Round Lake Park (rink shelter)	16691 Valley View Road	Purgatory Creek	411, 413	No BMP is warranted at this time.
Round Lake Park (shelter)	7500 Constitution Ave	Purgatory Creek	411	BMP - Inspect drains surrounding the shelter to ensure they're clear of debris
Rustic Hills Park	17465 Rustic Hills Drive	Purgatory Creek	344	No BMP is warranted at this time. BMP - A large rain garden could be created between the parking lot and the road. The catch basins along the northern road could be altered to allow water to empty into the garden and re-enter the drains at the northwestern corner of the parcel. It would require the rain garden to slope and several trees would have to be removed.
School District Transportation	8055 Wallace Road	Purgatory Creek	32	BMP - A large rain garden could be created between the parking lot and the road. The catch basins along the northern road could be altered to allow water to empty into the garden and re-enter the drains at the northwestern corner of the parcel. It would require the rain garden to slope and several trees would have to be removed.
School District Transportation (lot)	8055 Wallace Road	Purgatory Creek	32	
Senior Center	8950 Eden Prairie Road	Purgatory Creek	338	No BMP is warranted at this time.
Senior Center	8950 Eden Prairie Road	Purgatory Creek	338	No BMP is warranted at this time. BMP - If it were necessary to add a rain garden due to pollution concerns, the end parking stall near the drain could be removed and a rain garden constructed so that water redirects and overflow goes into the storm drain.
Senior Center (lot)	8950 Eden Prairie Road	Purgatory Creek	337, 338	
Smetana Lake Park	7620 Smetana Lane	Ninemile Creek	564	No BMP is warranted at this time. BMP - A small trench could be cut in the pavement to capture water and let it flow into a rain garden before it enters the lake.
Smetana Lake Park (east lot)	7700 Smetana Lane	Ninemile Creek	564	
Smetana Lake Park (west lot)	7620 Smetana Lane	Ninemile Creek	564	BMP - Permeable pavement or a rain garden could be added.
Smith-Douglas-Moore (lot)	8107 Eden Prairie Road	Purgatory Creek	327	Existing BMP - Site already has a constructed pond BMP.

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Smith-Douglas-Moore House	8107 Eden Prairie Road	Purgatory Creek	327	Existing BMP - Site already has a constructed pond BMP.
Smith-Douglas-Moore Homestead	8107 Eden Prairie Road	Purgatory Creek	327	Existing BMP - Site already has a constructed pond BMP.
Staring Lake Park	14800 Pioneer Trail	Purgatory Creek	158	BMP - The road and neighborhoods to the north and west could be addressed and measures could be taken to ensure the water coming off isn't negatively impacting it.
Staring Lake Park (amphitheater)	14800 Pioneer Trail	Purgatory Creek	158	No BMP is warranted at this time. BMP - If a BMP was necessary to mitigate the pollutants from cars, the parking lot could be regraded and put rain gardens in the grass between segments of the parking lot. Or there could be a rain garden that handles water flowing through the storm pipe before it enters the lake.
Staring Lake Park (east lot)	13800 Pioneer Trail	Purgatory Creek	158	
Staring Lake Park (main lot)	14800 Pioneer Trail	Purgatory Creek	158	No BMP is warranted at this time.
Staring Lake Park (shelter)	14800 Pioneer Trail	Purgatory Creek	158	No BMP is warranted at this time.
Staring Lake Park (west lot)	14674 Staring Lake Parkway	Purgatory Creek	158	No BMP is warranted at this time.
Sterling Field	17800 Sterling Terrace	Purgatory Creek	401	No BMP is warranted at this time.
Timber Creek	6395 Ginger Drive	Purgatory Creek	170, 176, 177	No BMP is warranted at this time.
Topview	7231 Gerard Drive	Ninemile Creek	590	No BMP is warranted at this time.
Water Tower	Unassigned	Purgatory Creek	289	No BMP is warranted at this time.
Water Tower	Baker Road	Purgatory Creek	486	No BMP is warranted at this time.
Water Tower	6395 Pinnacle Drive	Ninemile Creek	133	No BMP is warranted at this time.

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Water Treatment Plant	14100 Technology Drive	Purgatory Creek	156, 109, 108, 107	No BMP is warranted at this time.
Water Treatment Plant (lot)	14100 Technology Drive	Purgatory Creek	156, 109, 108, 107	No BMP is warranted at this time.
Well 02	14100 Technology Drive	Purgatory Creek	107	Existing BMP - Site already has storm water controlled with the constructed pond.
Well 03	7575 Mitchell Rd	Purgatory Creek	103	No BMP is warranted at this time. There is already a wide buffer of trees and foliage around the wetland. Storm water already stays on site.
Well 04	7665 Commerce Way	Purgatory Creek	42	No BMP is warranted at this time.
Well 05	7575 Corporate Way	Purgatory Creek	41	No BMP is warranted at this time.
Well 06	14900 Valley View Rd	Purgatory Creek	44	No BMP is warranted at this time.
Well 07	Unassigned	Purgatory Creek	226 & 227	No BMP is warranted at this time.
Well 08	7200 Edenvale Blvd	Purgatory Creek	203	Existing BMP - The site already has a rain garden.
Well 09	Unassigned	Purgatory Creek	203	BMP - Prairie grasses could be added in the ditch to aid in faster infiltration of storm water.
Well 10	6950 Edenvale Blvd	Purgatory Creek	224	No BMP is warranted at this time.
Well 11	15150 Technology Dr	Purgatory Creek	32	Existing BMP - The site already has a rain garden. Existing BMP - The site has had native prairie grasses planted, they will allow for easier infiltration of storm water and reduce runoff. In addition a rain garden was added along the driveway to eliminate runoff from the driveway.
Well 12	8080 Mitchell Rd	Purgatory Creek	29	BMP - A BMP would be difficult to implement on the site. A speed bump or small cut in the driveway could be added that would channel storm water into a rain garden.
Well 13	7940 Wallace Rd	Purgatory Creek	35	

City of Eden Prairie  
Stormwater Facilities Inventory  
Table 1 - Summary of BMP Considerations

Facility	Address	Watershed	Sub-Watershed(s)	BMP Considerations
Well 14	14500 Lone Oak Rd	Purgatory Creek	36	No BMP is warranted at this time.
Well 15	14615 Lone Oak Rd	Purgatory Creek	29	Existing BMP - The site has been seeded with prairie grass which will control excessive storm water flowing off the grass and into the street. Continue monitoring restoration efforts.
Well 16	8420 Mitchell Rd	Purgatory Creek	643	No BMP is warranted at this time.
Westgate	Ontario Boulevard	Purgatory Creek	216	BMP - A sample of storm water could be taken at the southeastern outlet and other locations to see the effectiveness of the constructed pond and peripherally storm water control systems. BMP - Caution should be used when applying fertilizer or herbicides onto the athletic fields to ensure the wetlands aren't effected.
Willow Park	7402 Butterscotch Road	Purgatory Creek	72 & 73	
Willow Park (lot)	7402 Butterscotch Road	Purgatory Creek	72	No BMP is warranted at this time.
Wyndham Knoll Park	6525 Dell Road	Purgatory Creek	305	No BMP is warranted at this time.
Wyndham Knoll Park (lot)	6525 Dell Road	Purgatory Creek	305	No BMP is warranted at this time.

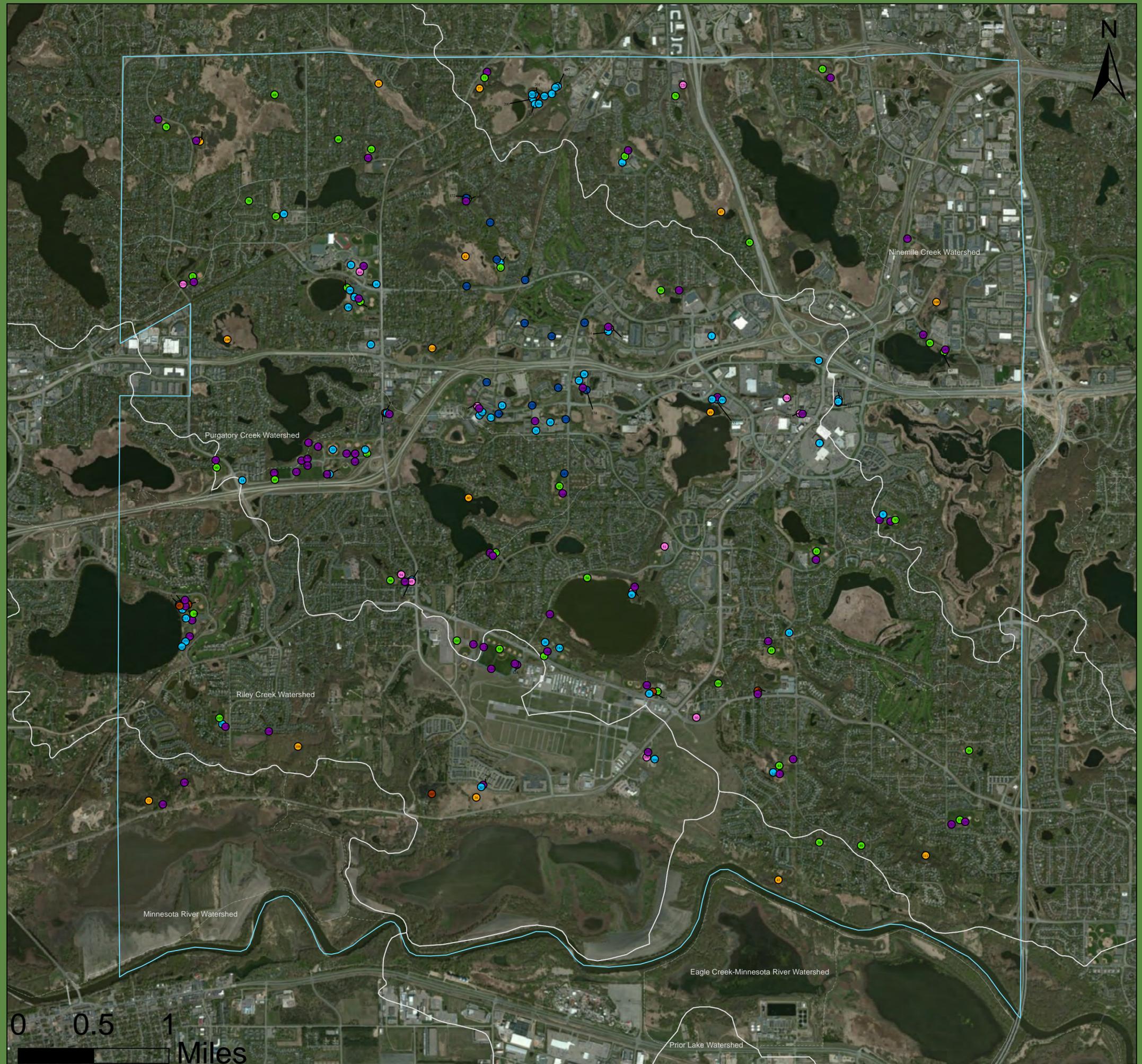
**ATTACHMENT 1**

**MAPS OF FACILITY INVENTORY LOCATIONS**

# Eden Prairie Stormwater Map



- Building
- Conservation Area
- Historic Site
- Park
- Municipal Well
- Parking Lot
- Special Use Site
- ▭ EPBoundary
- ▭ Watershed
- ▭ Sub-Watershed



# Eden Prairie Stormwater Map Buildings



- Building
- Conservation Area
- Historic Site
- Park
- Municipal Well
- Parking Lot
- Special Use Site
- ▭ EP Boundary
- ▭ Watershed
- ▭ Sub-Watershed



# Buildings

FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
0	Parks & Rec Building	Crestwood Park Shelter	9780 Dell Road	1700	0		Riley Creek	3011622130018	1 story residential/commercial blend	
1	Administration Building	Municipal Liquor 3	968 Prairie Center Drive	4284	0	1989	Purgatory Creek	1011622440010	Leased Space, Strip Mall	
2	Parks & Rec Building	Riley-Jacques House	9100 Riley Lake Road	0	0		Riley Creek	1911622420008	2 story residential, historical, Tenant	
3	Parks & Rec Building	Riley-Jacques Barn	9096 Riley Lake Road	4379	0		Riley Creek	1911622420008	2 story barn, historical	
4	Parks & Rec Building	Dorenkemper House	9090 Riley Lake Road	1235	0		Riley Creek	1911622420008	2 story residential, historical	
5	Parks & Rec Building	Senior Center	8950 Eden Prairie Road	16800	3.75	1958/1978	Purgatory Creek	2011622140001	2 story office	
6	Parks & Rec Building	Nesbitt Preserve Park Shelter	8641 Center Way	1100	0	1978	Ninemile Creek	2411622220019	1 story residential/commercial blend	
7	Administration Building	Human Services at EP Center	8251 Flying Cloud Drive, Suite 130	3111	0	2004	Purgatory Creek	1411622420011	Leased Space, Office	
8	Parks & Rec Building	Miller (Ice) Park Shelter	8405 Shoreline Drive	1700	0		Purgatory Creek	1711622310002	1 story residential/commercial blend	
9	Parks & Rec Building	Smith-Douglas-Moore House	8107 Eden Prairie Road	3000	0		Purgatory Creek	1711622140006	2 story residential, historical, Dunn Bros.	
10	Administration Building	City Center	8080 Mitchell Road	230000	0	1978/1981	Purgatory Creek	1611622140004	East remodeled 1994, 2 story office	
11	Administration Building	Encore Boutique	8022 Den Road	0	0		Ninemile Creek	1411622140028	Tenant	
12	Administration Building	Complete Nutrition	8020 Den Road	0	0		Ninemile Creek	1411622140028	Tenant	
13	Administration Building	Municipal Liquor 2	8018 Den Road	13051	0	1997	Ninemile Creek	1411622140028	City Owned, 1 story flex (Strip Mall)	
14	Parks & Rec Building	Art Center	7650 Equitable Drive	5484	4.52	1995	Purgatory Creek	1011622330034	1 story specialty	
15	Parks & Rec Building	Round Lake Park Shelter	7500 Constitution Ave	4000	0		Purgatory Creek	0811622420012	1 story residential/commercial blend	

FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
16	Administration Building	Fire Station 3	7350 Eden Prairie Rd	9000	2.02	1978/1988	Purgatory Creek	0811622130003	1+ story specialty	
17	Parks & Rec Building	Edenvale Park Shelter	7200 Edenvale Boulevard	1700	0	2007	Purgatory Creek	0911622240003	1 story residential/commercial blend	
18	Administration Building	Fire Station 4	17920 Linwood Ct.	11700	0	2007	Purgatory Creek	1811622440081	1+ story specialty	
19	Parks & Rec Building	Prairie View Park Shelter	17401 Peterborg Road	1700	0	2007	Purgatory Creek	0811622220002	1 story residential/commercial blend	
20	Parks & Rec Building	Miller (Softball) Park Shelter	16900 Miller Parkway	2915	0		Purgatory Creek	1711622310002	1 story residential/commercial blend	
21	Parks & Rec Building	Community Center	16700 Valley View Road (55346)	172000	42.4	1980/1992/2008	Purgatory Creek	0811622420012	2 story specialty, pool, ice rink	
22	Parks & Rec Building	Miller (Baseball) Park Shelter	16600 Miller Parkway East	3000	0		Purgatory Creek	1711622420001	1 story residential/commercial blend	
23	Administration Building	Municipal Liquor 1	16508 West 78th Street	5250	0	1976	Purgatory Creek	0811622430042	Leased Space, Strip Mall	
24	Administration Building	Maintenance Facility	15150 Technology Drive	88000	7.77	1964/1997	Purgatory Creek	1611622130010	1 story office/warehouse	
25	Administration Building	Fire Station 1	14800 Scenic Heights Rd	20000	0	1999	Purgatory Creek	1611622140003	1+ story specialty	
26	Parks & Rec Building	Staring Lake Park Shelter	14800 Pioneer Trail	3000	0		Purgatory Creek	2111622440002	1 story residential/commercial blend	
27	Administration Building	Water Treatment Plant	14100 Technology Drive	222000	10	1973/1998	Purgatory Creek	1511622220006	2+ story specialty, water treatment	
28	Administration Building	Utilities Garage (WTP)	14100 Technology Drive	9534	3.9	1983	Purgatory Creek	1511622220006	Removed all but current garage	
29	Parks & Rec Building	Forest Hills Park Shelter	13900 Holly Road	1700	0	2007	Ninemile Creek	0311622310002	1 story residential/commercial blend	
30	Parks & Rec Building	Outdoor Center	13765 Staring Lake Pkwy	4000	14.6	1930's	Purgatory Creek	2211622310001	1 story residential, historical cabin	
31	Parks & Rec Building	Cummins-Phipps -Grill Home	13600 Pioneer Trail	2200	0		Purgatory Creek	2711622210001	2 story residential, historical	
32	Parks & Rec Building	Purgatory Creek Park Shelter	13001 Technology Drive	680	0		Purgatory Creek	1511622140003	1 story residential/commercial blend	
33	Administration Building	Fire Station 2	12100 Sunnybrook Rd	9000	3.28	1988	Purgatory Creek	2311622340016	1+ story specialty	

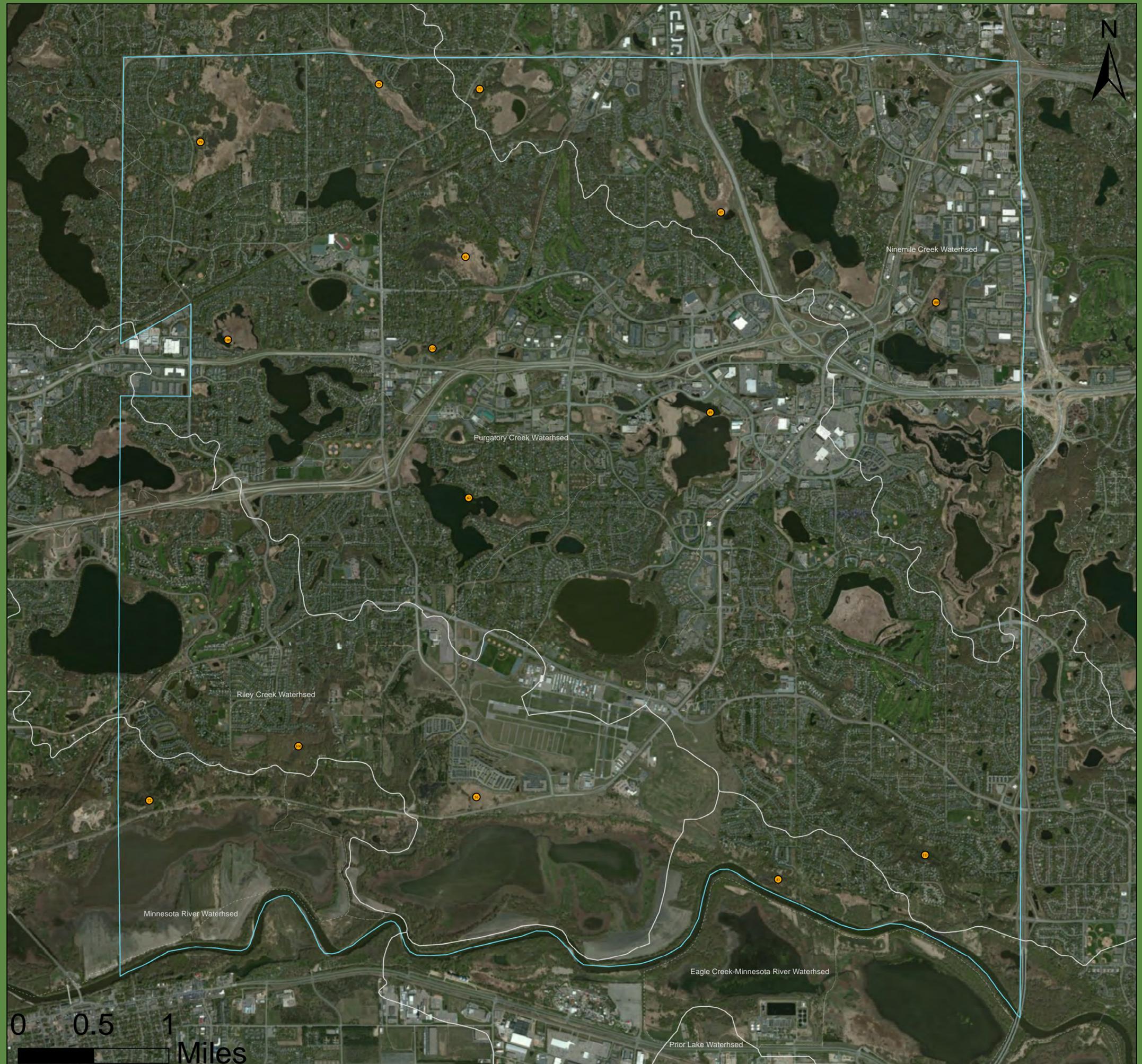
FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
34	Parks & Rec Building	Homewood Hills Barn	12000 Silverwood Drive	7424	0	1989	Purgatory Creek	2611622310030	2 story barn, historical	
35	Administration Building	Building 51	11800 Technology Dr	8800	0	1978	Purgatory Creek	1411622120029	1+ story specialty	
101	Parks & Rec Building	Riley Lake guard shack	9271 Riley Lake Road	0	0		Riley Creek	1911622340005	1 Story	
102	Parks & Rec Building	Riley Lake boat ramp bldg	9300 Riley Lake Road	0	0		Riley Creek	1911622340002	1 Story	
184	Parks & Rec Building	Staring Lake Park Amphitheater	14800 Pioneer Trail	0	0		Purgatory Creek	2111622440002	1 Story	
188	Parks & Rec Building	Round Lake Park Rink Shelter	16691 Valley View Road	0	0		Purgatory Creek	0811622420012	1 Story	
190	Parks & Rec Building	Round Lake Park Boat House	16691 Valley View Road	0	0		Purgatory Creek	0811622420012	1 Story	
191	Parks & Rec Building	Purgatory Creek Park (Building)	13001 Technology Drive	0	0		Purgatory Creek	1511622140003	1 Story	
192	Parks & Rec Building	Purgatory Creek Park (Building)	13001 Technology Drive	0	0		Purgatory Creek	1511622140003	1 Story	
197	Parks & Rec Building	Camp Edenwood	6350 Indian Chief Road	0	0		Ninemile Creek	0411622120002		
198	Parks & Rec Building	Camp Edenwood	6350 Indian Chief Road	0	0		Ninemile Creek	0411622120002		
199	Parks & Rec Building	Camp Edenwood	6350 Indian Chief Road	0	0		Ninemile Creek	0411622120002		
200	Parks & Rec Building	Camp Edenwood	6350 Indian Chief Road	0	0		Ninemile Creek	0411622120002		
201	Parks & Rec Building	Camp Edenwood	6350 Indian Chief Road	0	0		Ninemile Creek	0411622120002		
202	Parks & Rec Building	Camp Edenwood	6350 Indian Chief Road	0	0		Ninemile Creek	0411622120002		
203	Parks & Rec Building	Camp Edenwood	6350 Indian Chief Road	0	0		Ninemile Creek	0411622120002		
204	Parks & Rec Building	Camp Edenwood	6350 Indian Chief Road	0	0		Ninemile Creek	0411622120002		
205	Parks & Rec Building	Camp Edenwood	6350 Indian Chief Road	0	0		Ninemile Creek	0411622120002		
207	Parks & Rec Building	Prairie Bluff Conservation Area (shelter)	10092 Indigo Drive	0	0		Riley Creek	2811622340103	1 Story	
209	Parks & Rec Building	Maintenance Outdoor Storage	9811 Flying Cloud Drive	0	0		Riley Creek	2711622420002	1 Story	
211	Parks & Rec Building	Riley Lark Park (shelter)	9100 Riley Lake Road	0	0		Riley Creek	1911622420008	1 Story	
213	Administration Building	School District Transportation	8055 Wallace Rd	0	0		Purgatory Creek	1611622240010	1 Story Garage	

FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
214	Administration Building	School District Transportation	8055 Wallace Rd	0	0		Purgatory Creek	1611622240010	1 Story Garage	
215	Administration Building	School District Transportation	8055 Wallace Rd	0	0		Purgatory Creek	1611622240010	1 Story Office	

# Eden Prairie Stormwater Map Conservation Areas



- Building
- Conservation Area
- Historic Site
- Park
- Municipal Well
- Parking Lot
- Special Use Site
- ▭ EPBoundary
- ▭ Watershed
- ▭ Sub-Watershed



# Conservation Areas

FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
36	Conservation Area	Prairie Bluff	10092 Indigo Dr.	0	0		Riley Creek	2811622330005		
41	Conservation Area	James A. Brown	11449 Landing Road	0	0		Eagle Creek - Minnesota River	3511622240062		
47	Conservation Area	Cardinal Creek	12828 Gerard Drive	0	0		Ninemile Creek	0211622330001		
49	Conservation Area	Purgatory Creek	13001 Technology Drive	0	0		Purgatory Creek	1511622140004		
60	Conservation Area	Red Rock	15440 Village Woods Drive	0	0		Purgatory Creek	1611622340005		
72	Conservation Area	Richard T. Anderson	18700 Flying Cloud Drive	0	0		City of Shakopee - Minnesota River	3011622330002		
75	Conservation Area	Timber Creek	6395 Ginger Drive	0	0		Purgatory Creek	0511622140062		
77	Conservation Area	Birch Island Woods	6410 Indian Chief Road	0	0		Ninemile Creek	0411622210004		
79	Conservation Area	Edenbrook	6655 Dell Road	0	0		Purgatory Creek	0611622420001		
83	Conservation Area	Edenvale	7300 Edenvale Boulevard	0	0		Purgatory Creek	0911622240009		
106	Conservation Area	Riley Creek Woods	9795 Canopy Trail	0	0		Riley Creek	2911622320001		
108	Conservation Area	Nine-Mile Creek	flows into Bryant and into Smetana Lakes	0	0		Ninemile Creek	1211622310018		
109	Conservation Area	Mitchell Marsh	north of Highway 5, east of Dell Road	0	0		Purgatory Creek	0711622430069		
110	Conservation Area	Westgate	Ontario Boulevard	0	0		Purgatory Creek	0911622330022		
111	Conservation Area	Lower Purgatory Creek	Riverview Road	0	0		Purgatory Creek	3611622240029		

# Eden Prairie Stormwater Map Historic Sites



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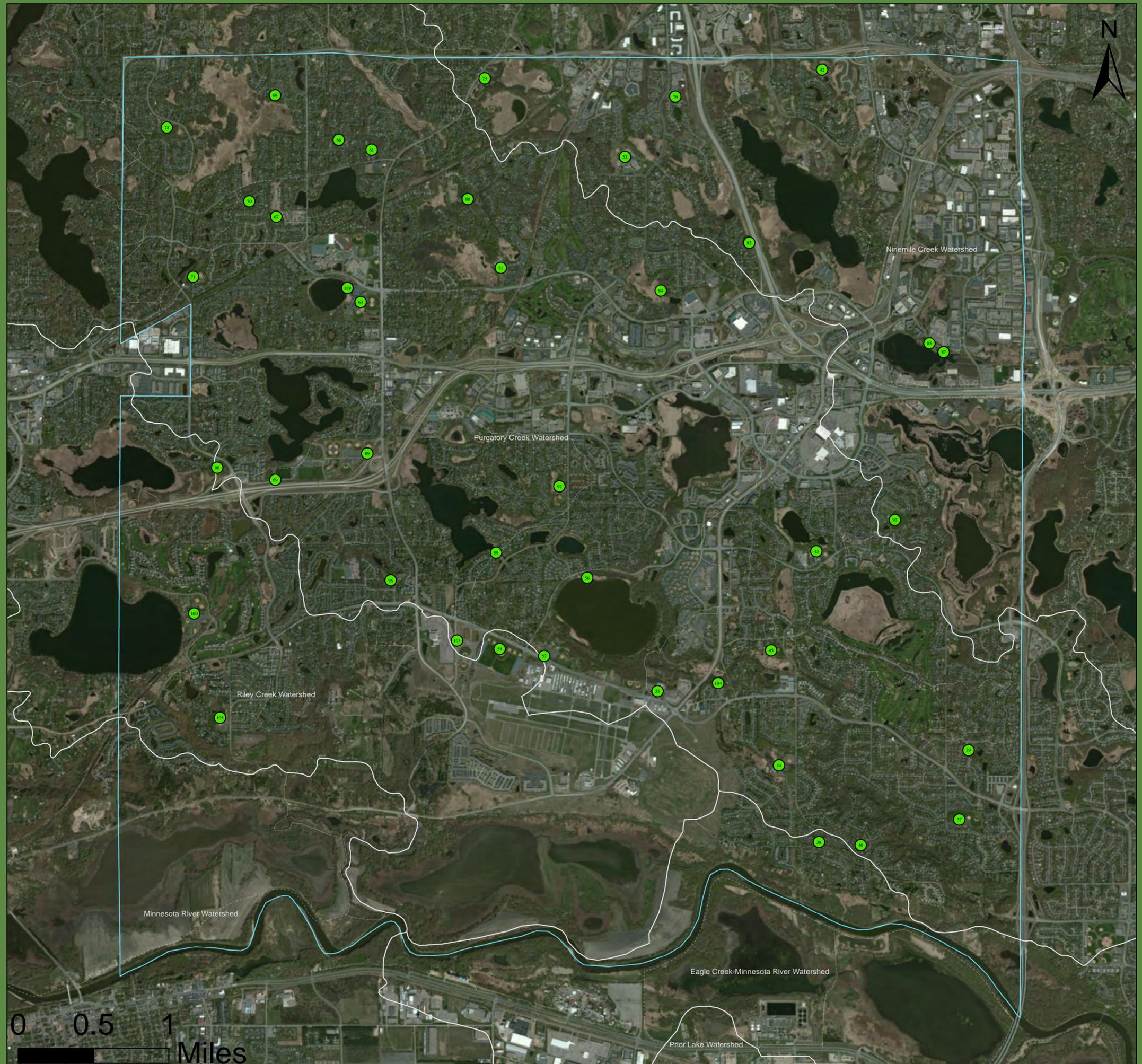
# Historic Sites

FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
46	Historic Site	Pleasant Hill Cemetery	12390 Pioneer Trail	0	0		Purgatory Creek	2611622220001		
52	Historic Site	J. R. Cummins Homestead	13600 Pioneer Trail	0	0		Purgatory Creek	2711622210001		
74	Historic Site	Camp Edenwood	6350 Indian Chief Road	0	0		Ninemile Creek	0411622120002		
88	Historic Site	Smith-Douglas-More Homestead	8107 Eden Prairie Road	0	0		Purgatory Creek	1711622140006	2 Stories	
97	Historic Site	Dorenkemper House	9090 Riley Lake Road	0	0		Riley Creek	1911622420008	2 Stories	
98	Historic Site	Riley-Jacques Farm	9100 Riley Lake Road	0	0		Riley Creek	1911622420008		
99	Historic Site	Riley-Jacques Barn	9100 Riley Lake Road	0	0		Riley Creek	1911622420008	2 Stories	
107	Historic Site	Frederick Miller Spring	9995 Spring Road	0	0		Riley Creek	2811622330005		

# Eden Prairie Stormwater Map Parks



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# Parks

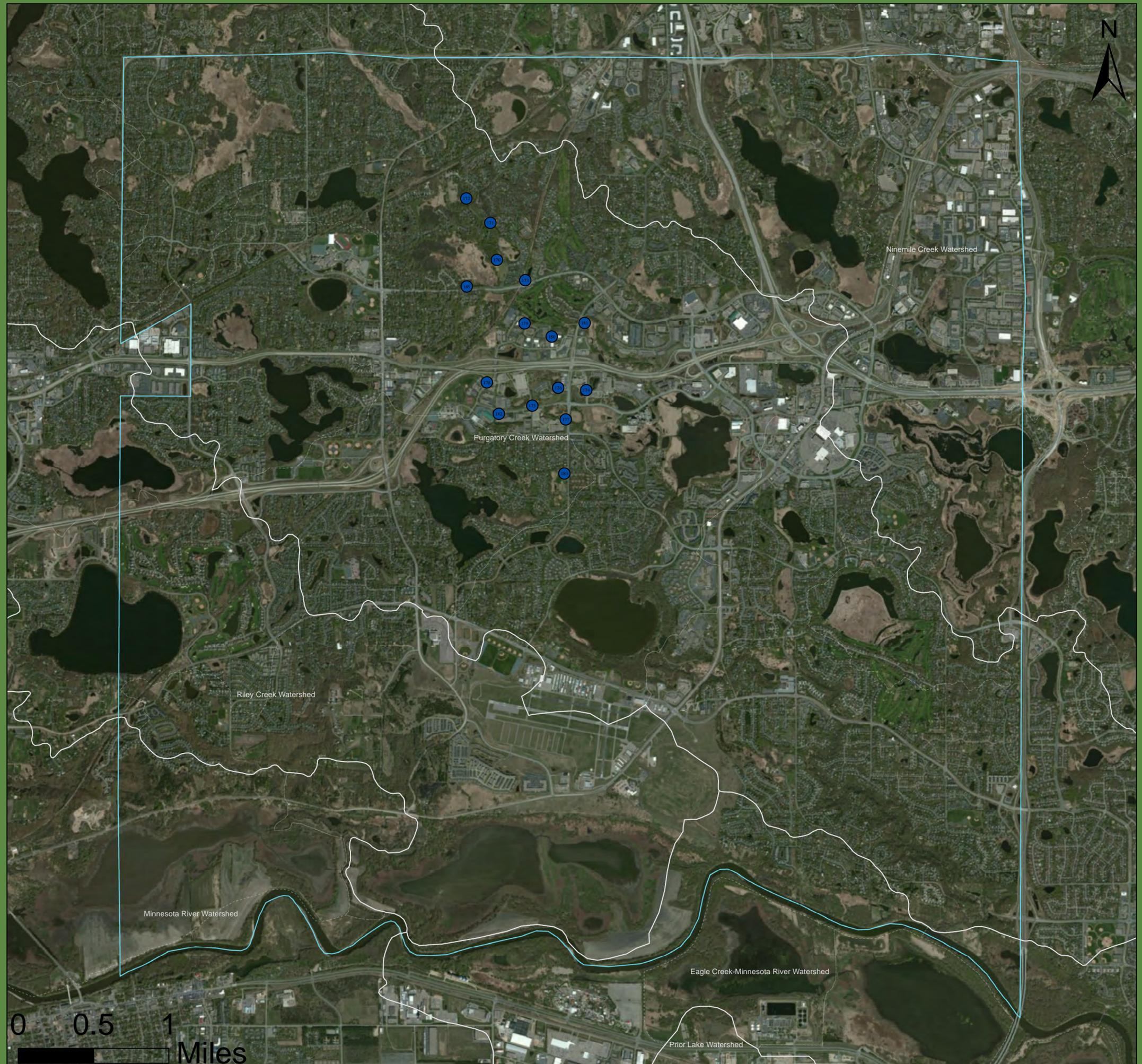
FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
37	Neighborhood Park	Franlo Road Park	10245 Franlo Road	0	0		Purgatory Creek	3611622120037		
38	Mini Park	Bluffs West 2	10292 Edinburgh Circle	0	0		Eagle Creek - Minnesota River	3511622120083		
39	Neighborhood Park	Prairie East Park	10379 Balsam Way	0	0		Purgatory Creek	2511622420115		
40	Mini Park	Bluffs West 1	10458 Devonshire	0	0		Purgatory Creek	3511622140038		
42	Neighborhood Park	Carmel Park	11610 Tyrell Drive	0	0		Ninemile Creek	0211622120070		
43	Neighborhood Park	Eden Lake Park	11700 Anderson Lakes Parkway	0	0		Purgatory Creek	2311622130001		
44	Neighborhood Park	Homeward Hills Park	12000 Silverwood Drive	0	0		Purgatory Creek	2611622310030		
45	Neighborhood Park	Creekwood Park	12341 Sunnybrook Road	0	0		Purgatory Creek	2311622340005		
53	Neighborhood Park	Forest Hills Park	13900 Holly Road	0	0		Ninemile Creek	0311622310002		
55	Neighborhood Park	Staring Lake Park (east entrance)	13800 Pioneer Trail	0	0		Purgatory Creek	2711622130017		
56	Neighborhood Park	Staring Lake Park (boat ramp)	14695 Staring Lake Parkway	0	0		Purgatory Creek	2211622230001		
57	Neighborhood Park	Staring Lake Park (main entrance)	14800 Pioneer Trail	0	0		Purgatory Creek	2111622440002		
58	Neighborhood Park	Flying Cloud Ballfields	15219 Pioneer Trail	0	0		Riley Creek	2111622430001		
59	Neighborhood Park	Red Rock Lake Park	15416 Boulder Pointe Road	0	0		Purgatory Creek	2111622130008		
61	Neighborhood Park	Eden Valley Park	16600 Duck Lake Trail	0	0		Purgatory Creek	0511622420047		
63	Neighborhood Park	Round Lake Park	16691 Valley View Road	0	0		Purgatory Creek	0811622420012		
66	Mini Park	High Trail Estates	16940 Honeysuckle Lane	0	0		Purgatory Creek	0511622310032		
67	Neighborhood Park	Prairie View Park	17255 Peterborg Road (Bldg. 17255)	0	0		Purgatory Creek	0811622220002		
68	Neighborhood Park	Rustic Hills Park	17465 Rustic Hills Drive	0	0		Purgatory Creek	0511622230053		

FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
69	Neighborhood Park	Miller Park (west entry)	17590 Linwood Court	0	0		Purgatory Creek	1711622320002		
70	Mini Park	Sterling Field	17800 Sterling Terrace	0	0		Purgatory Creek	0611622440039		
71	Neighborhood Park	Hidden Ponds Park	18300 Twilight Trail	0	0		Purgatory Creek	0711622130026		
73	Neighborhood Park	Birch Island Park	6225 Eden Prairie Road	0	0		Ninemile Creek	0411622210006		
76	Mini Park	Holasek Hill	6395 Pinnacle Drive	0	0		Ninemile Creek	0311622120442		
78	Neighborhood Park	Wyndham Knoll Park	6525 Dell Road	0	0		Purgatory Creek	0611622240049		
80	Mini Park	Edgewood	6950 Edenvale Boulevard	0	0		Purgatory Creek	0411622340001		
81	Neighborhood Park	Edenvale Park	7200 Edenvale Blvd	0	0		Purgatory Creek	0911622240003		
82	Mini Park	Topview	7231 Gerard Drive	0	0		Ninemile Creek	1111622220014		
84	Neighborhood Park	Willow Park	7402 Butterscotch Road	0	0		Purgatory Creek	1011622420005		
85	Neighborhood Park	Smetana Lake Park	7620 Smetana Lane	0	0		Ninemile Creek	1211622340014		
87	Neighborhood Park	Smetana Lake Park (boat ramp)	7700 Smetana Lane	0	0		Ninemile Creek	1211622340014		
89	Neighborhood Park	Miller Park (east entry)	8208 Eden Prairie Road	0	0		Purgatory Creek	1711622420001		
90	Neighborhood Park	Rice Marsh Lake Park	8266 Erin Bay	0	0		Purgatory Creek	1811622420002		
92	Neighborhood Park	Pheasant Woods Park	8420 Mitchell Road	0	0		Purgatory Creek	1611622440032		
93	Neighborhood Park	Nesbitt Preserve Park	8641 Center Way	0	0		Ninemile Creek	2411622220019		
96	Neighborhood Park	Pioneer Park	8950 Eden Prairie Road	0	0		Purgatory Creek	2011622140006		
100	Neighborhood Park	Riley Lake Park	9180 Riley Lake Road	0	0		Riley Creek	1911622420008		
103	Neighborhood Park	Flying Cloud Expansion Entry	9311 Mitchell Rd.	0	0		Purgatory Creek	2111622340001		
104	Mini Park	Overlook	9514 Grey Widgeon Place	0	0		Purgatory Creek	2711622110041		
105	Neighborhood Park	Crestwood Park	9780 Dell Road	0	0		Riley Creek	3011622130018		
189	Neighborhood Park	Round Lake Park (boat ramp)	16691 Valley View Road	0	0		Purgatory Creek	0811622420012		

# Eden Prairie Stormwater Map Municipal Wells



- Building
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- Park
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- Parking Lot
- Special Use Site
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- ▭ Watershed
- ▭ Sub-Watershed



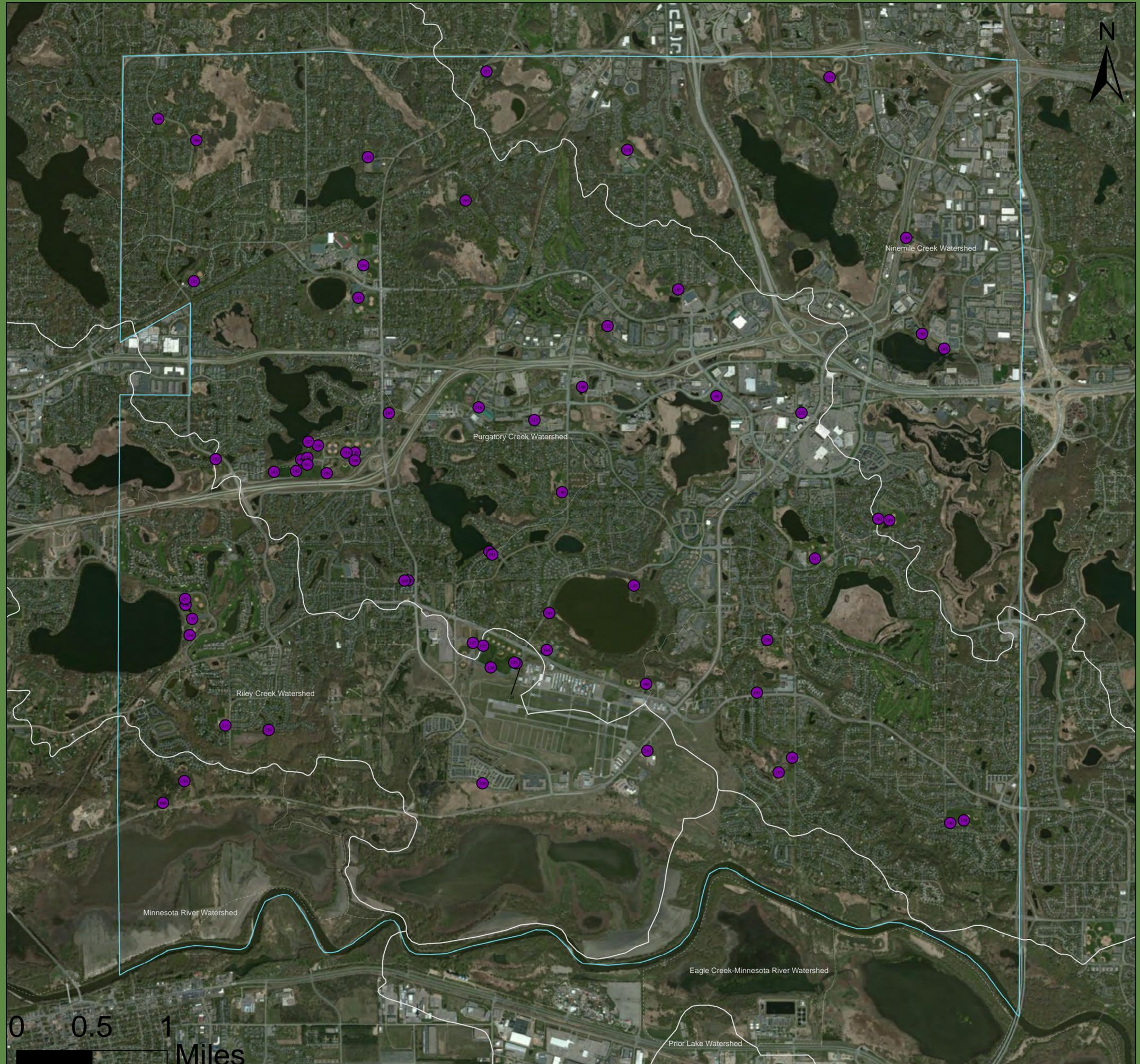
# Municipal Wells

FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
169	Municipal Well	Well 07	Unassigned	0	0		Purgatory Creek	0911622240007		
170	Municipal Well	Well 08	7200 Edenvale Blvd	0	0		Purgatory Creek	0911622240003		
171	Municipal Well	Well 09	Unassigned	0	0		Purgatory Creek	0911622210027		
172	Municipal Well	Well 10	6950 Edenvale Blvd	0	0		Purgatory Creek	0411622340001		
173	Municipal Well	Well 06	14900 Valley View Rd	0	0		Purgatory Creek	0911622130059		
174	Municipal Well	Well 02	14100 Technology Drive	0	0		Purgatory Creek	1511622220006		
175	Municipal Well	Well 15	14615 Lone Oak Rd	0	0		Purgatory Creek	1611622110007		
176	Municipal Well	Well 14	14500 Lone Oak Rd	0	0		Purgatory Creek	1611622110012		
177	Municipal Well	Well 12	8080 Mitchell Rd	0	0		Purgatory Creek	1611622140004		
178	Municipal Well	Well 13	7940 Wallace Rd	0	0		Purgatory Creek	1611622210032		
179	Municipal Well	Well 05	7575 Corporate Way	0	0		Purgatory Creek	0911622420003		
180	Municipal Well	Well 04	7665 Commerce Way	0	0		Purgatory Creek	0911622440041		
181	Municipal Well	Well 03	7575 Mitchell Rd	0	0		Purgatory Creek	1011622330037		
182	Municipal Well	Well 11	15150 Technology Dr	0	0		Purgatory Creek	1611622130010		
183	Municipal Well	Well 16	8420 Mitchell Rd	0	0		Purgatory Creek	1611622440032		

# Eden Prairie Stormwater Map Parking Lots



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# Parking Lots

FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
48	Parking Lot	Purgatory Creek Park (lot)	13001 Technology Drive	0	0		Purgatory Creek	1511622140003	55 Parking Spots	
112	Parking Lot	Art Center (lot)	7650 Equitable Drive	0	0		Purgatory Creek	1011622330034	27 Parking Spots	
113	Parking Lot	Birch Island Woods (lot)	6410 Indian Chief Road	0	0		Ninemile Creek	0411622210006	8 Parking Spots	
114	Parking Lot	Carmel Park (lot)	11610 Tyrell Drive	0	0		Ninemile Creek	0211622120070	11 Parking Spots	
115	Parking Lot	Crestwood (lot)	9780 Dell Road	0	0		Riley Creek	3011622130018	53 Parking Spots	
116	Parking Lot	Community Center (lot)	16700 Valley View Road	0	0		Purgatory Creek	0811622420012	488 Parking Spots	
120	Parking Lot	Creekwood (lot)	12341 Sunnybrook Road	0	0		Purgatory Creek	2311622340009	10 Parking Spots	
121	Parking Lot	Eden Lake (lot)	11700 Anderson Lakes Parkway	0	0		Purgatory Creek	2311622130001	41 Parking Spots	
122	Parking Lot	Eden Valley (lot)	16600 Duck Lake Trail	0	0		Purgatory Creek	0511622420047	16 Parking Spots	
123	Parking Lot	Flying Cloud Fields (lot)	15219 Pioneer Trail	0	0		Riley Creek	2811622120001	682 Parking Spots	
124	Parking Lot	Flying Cloud Fields East (lot)	15219 Pioneer Trail	0	0		Riley Creek	2811622120001	306 Parking Spots	
125	Parking Lot	Flying Cloud Fields West (lot)	15219 Pioneer Trail	0	0		Riley Creek	2111622340001	190 Parking Spots	
126	Parking Lot	Flying Cloud Fields South (lot)	15219 Pioneer Trail	0	0		Riley Creek	2811622210001	186 Parking Spots	
127	Parking Lot	Flying Cloud Fields -Expansion (lot)	15219 Pioneer Trail	0	0		Purgatory Creek	2111622340001	125 Parking Spots	
128	Parking Lot	Forest Hills Park (lot)	13900 Holly Road	0	0		Ninemile Creek	0311622310002	56 Parking Spots	
129	Parking Lot	Franlo Park East (lot)	10245 Franlo Road	0	0		Purgatory Creek	3611622120037	52 Parking Spots	
130	Parking Lot	Franlo Park West (lot)	10245 Franlo Road	0	0		Purgatory Creek	3611622120037	51 Parking Spots	
131	Parking Lot	Hidden Ponds (lot)	18300 Twilight Trail	0	0		Purgatory Creek	0711622130026	62 Parking Spots	
132	Parking Lot	Homeward Hills East (lot)	9970 Homeward Hills Road	0	0		Purgatory Creek	2611622340036	40 Parking Spots	
133	Parking Lot	Homeward Hills West (lot)	12000 Silverwood Drive	0	0		Purgatory Creek	2611622340036	57 Parking Spots	
134	Parking Lot	Miller Park (lot)	16900 Miller Parkway	0	0		Purgatory Creek	1711622420001	916 Parking Spots	

FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
135	Parking Lot	Miller Park Fields 1-3 and 4-7 (lot)	16900 E. Miller Parkway	0	0		Purgatory Creek	1711622420001	360 Parking Spots	
136	Parking Lot	Miller Park Field 4-7 (overflow lot)	16900 E. Miller Parkway	0	0		Purgatory Creek	1711622310002	47 Parking Spots	
137	Parking Lot	Miller Park Boat Ramp/Picnic (lot)	16900 E. Miller Parkway	0	0		Purgatory Creek	1711622310003	30 Parking Spots	
138	Parking Lot	Miller Park Picnic Area (lot)	16900 Miller Parkway West	0	0		Purgatory Creek	1711622310003	66 Parking Spots	
139	Parking Lot	Miller Park Play Area (lot)	16900 Miller Parkway West	0	0		Purgatory Creek	1711622310003	95 Parking Spots	
140	Parking Lot	Miller Park Field 8 (lot)	16900 E. Miller Parkway	0	0		Purgatory Creek	1711622420001	86 Parking Spots	
141	Parking Lot	Miller Park Fields 9-11 (lot)	16900 Miller Parkway West	0	0		Purgatory Creek	1711622310003	185 Parking Spots	
142	Parking Lot	Miller Park Field 12 (lot)	16900 Miller Parkway West	0	0		Purgatory Creek	1711622320004	43 Parking Spots	
143	Parking Lot	Miller Park Field 13 (lot)	16900 E. Miller Parkway	0	0		Purgatory Creek	1711622320002	54 Parking Spots	
144	Parking Lot	Dog Park – Flying Cloud Dr. (lot)	7171 Flying Cloud Dr	0	0		Ninemile Creek	1211622210007	9 Parking Spots	
145	Parking Lot	Outdoor Center (lot)	13765 Staring Lake Pkwy	0	0		Purgatory Creek	2211622310001	37 Parking Spots	
146	Parking Lot	Pheasant Woods Park (lot)	8420 Mitchell Road	0	0		Purgatory Creek	1611622440032	20 Parking Spots	
148	Parking Lot	Pioneer Park (lot)	8950 Eden Prairie Road	0	0		Purgatory Creek	2011622140001	47 Parking Spots	
149	Parking Lot	Preserve Park (east lot)	8641 Center Way	0	0		Ninemile Creek	2411622220019	35 Parking Spots	
150	Parking Lot	Preserve Park (west lot)	8641 Center Way	0	0		Ninemile Creek	2411622220019	93 Parking Spots	
151	Parking Lot	Red Rock Park (lot)	15416 Boulder Pointe Road	0	0		Purgatory Creek	2111622130008	14 Parking Spots	
152	Parking Lot	Red Rock (boat ramp lot)	15416 Boulder Pointe Road	0	0		Purgatory Creek	2111622130008	6 Parking Spots	
153	Parking Lot	Rice Marsh Park (lot)	8266 Erin Bay	0	0		Purgatory Creek	1811622420002	31 Parking Spots	
154	Parking Lot	Riley Creek Woods (lot)	9795 Canopy Trail	0	0		Riley Creek	2911622230062	10 Parking Spots	
155	Parking Lot	Riley Lake Park (lot)	9100 Riley Lake Road	0	0		Riley Creek	1911622420008	198 Parking Spots	
156	Parking Lot	Riley Lake Park Boat (lot)	9300 Riley Lake Road	0	0		Riley Creek	1911622420008	16 Parking Spots	

FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
157	Parking Lot	Riley Lake Park Barn (lot)	9100 Riley Lake Road	0	0		Riley Creek	1911622420008	40 Parking Spots	
158	Parking Lot	Riley Lake Park Overflow (lot)	9100 Riley Lake Road	0	0		Riley Creek	1911622420008	15 Parking Spots	
159	Parking Lot	Richard T Anderson Conservation Area (upper lot)	18700 Flying Cloud Drive	0	0		Riley Creek	3011622340002	8 Parking Spots	
160	Parking Lot	Richard T Anderson Conservation Area (lower lot)	18700 Flying Cloud Drive	0	0		Riley Creek	3011622330002	20 Parking Spots	
161	Parking Lot	Round Lake Park (lot)	16691 Valley View Road	0	0		Purgatory Creek	0811622420012	279 Parking Spots	
162	Parking Lot	Senior Center (lot)	8950 Eden Prairie Road	0	0		Purgatory Creek	2011622140001	54 Parking Spots	
163	Parking Lot	Smetana Lake Park (lot)	7700 Smetana Lane	0	0		Ninemile Creek	1211622340014	6 Parking Spots	
164	Parking Lot	Staring Lake Park (main lot)	14800 Pioneer Trail	0	0		Purgatory Creek	2111622440002	209 Parking Spots	
165	Parking Lot	Staring Lake Park (west lot)	14674 Staring Lake Parkway	0	0		Purgatory Creek	2111622410003	47 Parking Spots	
166	Parking Lot	Staring Lake Park (east lot)	13800 Pioneer Trail	0	0		Purgatory Creek	2711622210001	86 Parking Spots	
167	Parking Lot	Willow Park (lot)	7402 Butterscotch Road	0	0		Purgatory Creek	1011622420004	26 Parking Spots	
168	Parking Lot	Wyndham Knoll Park (lot)	6525 Dell Road	0	0		Purgatory Creek	0611622240049	21 Parking Spots	
185	Parking Lot	Smetana Lake Park (lot)	7620 Smetana Lane	0	0		Ninemile Creek	1211622340014	6 Parking Spots	
186	Parking Lot	Water Treatment Plant (lot)	14100 Technology Drive	0	0		Purgatory Creek	1511622220009	55 Parking Spots	
187	Parking Lot	Smith-Douglas-Moore (lot)	8107 Eden Prairie Road	0	0		Purgatory Creek	1711622140006	36 Parking Spots	
193	Parking Lot	Pleasant Hill Cemetary (lot)	12390 Pioneer Trail	0	0		Purgatory Creek	2611622220002	8 Parking Spots	
194	Parking Lot	Miller Park Rink (lot)	8405 Shoreline Drive	0	0		Purgatory Creek	1711622310002	36 Parking Spots	
195	Parking Lot	Edgewood (lot)	6950 Edenvale Boulevard	0	0		Purgatory Creek	0411622340001	6 Parking Spots Gravel	
196	Parking Lot	Edenbrook (lot)	6655 Dell Road	0	0		Purgatory Creek	0611622420001	8 Parking Spots	
206	Parking Lot	Prairie Bluff Conservation Area (lot)	10092 Indigo Drive	0	0		Riley Creek	2811622340103	6 Parking Spots	
210	Parking Lot	Maintenance Outdoor Storage	9811 Flying Cloud Drive	0	0		Riley Creek	2711622420002		

FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
216	Parking Lot	(lot) School District Transportation	8055 Wallace Rd	0	0		Purgatory Creek	1611622240009	50 Parking Spots	
217	Parking Lot	(lot) City Center (lot)	8080 Mitchell Road	0	0		Purgatory Creek	1611622140004	350 Parking Spots	
222	Parking Lot	(lot) Ace Daycare (lot)	8098 Glen La	0	0		Purgatory Creek	1411622130038	15 Parking Spots	

# Eden Prairie Stormwater Map Special Use Sites



- Building
- Conservation Area
- Historic Site
- Park
- Municipal Well
- Parking Lot
- Special Use Site
- EP Boundary
- Watershed
- Sub-Watershed



# Special Use Sites

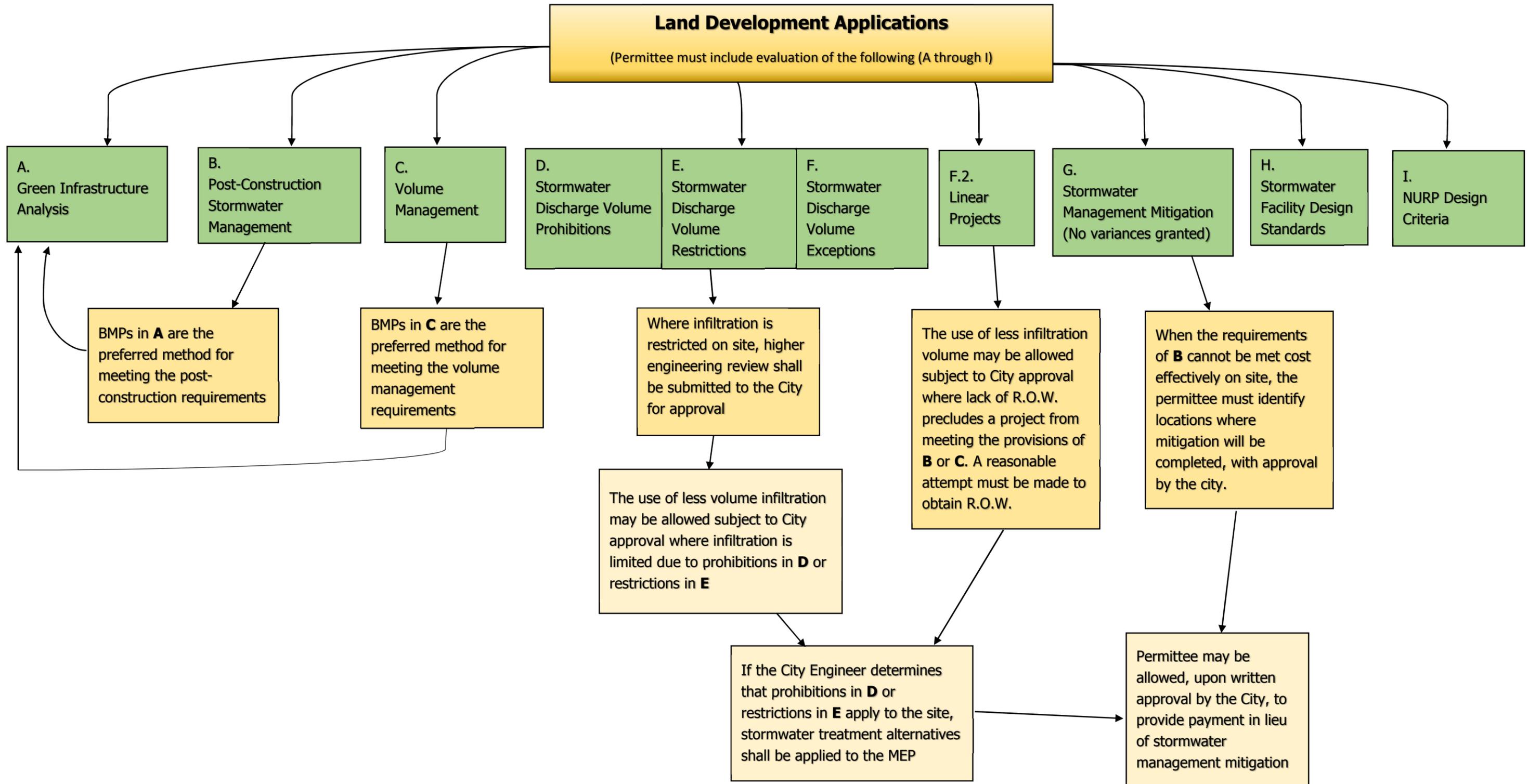
FID_	Facility Type	Facility	Address	Sq_ft	Acreage	Year_Built	Watershed	PID	Comments	Operations
50	Special Use Site	Community Garden Plots (Pioneer Trail)	13180 Pioneer Trail	0	0		Purgatory Creek	2711622140001		
51	Special Use Site	Oak Point Pool	13400 Staring Lake Parkway	0	0		Purgatory Creek	2211622130004		
54	Special Use Site	Outdoor Center	13765 Staring Lake Parkway	0	0		Purgatory Creek	2211622310001		
64	Special Use Site	Eden Prairie Community Center	16700 Valley View Road	0	0		Purgatory Creek	0811622420012		
86	Special Use Site	Eden Prairie Art Center	7650 Equitable Drive	0	0		Purgatory Creek	1011622330034		
94	Special Use Site	Community Garden Plots (Pioneer Park)	8940 Sutton Road	0	0		Purgatory Creek	2011622140006		
95	Special Use Site	Senior Center	8950 Eden Prairie Road	0	0		Purgatory Creek	2011622140001		
208	Special Use Site	Maintenance Outdoor Storage	9811 Flying Cloud Drive	0	0		Riley Creek	2711622420002		
212	Special Use Site	School District Transportation Department	8055 Wallace Road	0	0		Purgatory Creek	1611622240009		
218	Special Use Site	Water Tower	Unassigned	0	0		Purgatory Creek	1411622240022		
219	Special Use Site	Water Tower	Unassigned	0	0		Purgatory Creek	0711622310010		
220	Special Use Site	AST	6395 Pinnacle Drive	0	0		Ninemile Creek	0311622120443		
221	Special Use Site	Ace Daycare	8098 Glen La	0	0		Purgatory Creek	1411622130038	1 Story	

**ATTACHMENT 2**

**CD CONTAINING ELECTRONIC DELIVERABLES**

- 1. EXCEL SPREADSHEET OF FACILITY INVENTORY SUMMARY**
- 2. DETAILED FACILITY INVENTORY – EVERNOTE FORMAT**
- 3. DETAILED FACILITY INVENTORY – HTML FORMAT**

# STORMWATER MANAGEMENT AND MITIGATION FLOWCHART



# MS4 Annual Assessment

## Municipal Stormwater Permit Program

The Annual SWPPP Assessment shall be performed prior to completion of each Annual Report. Use this form to evaluate program compliance, appropriateness of BMP practices, and progress towards identified measurable goals. Note: This annual assessment shall be done to comply with the requirements of NPDES/SDS Permit MN R100001.

### Annual Review Assessment

MS4 Community: \_\_\_\_\_ Year: \_\_\_\_\_

Reviewer Name(s): \_\_\_\_\_ Review date: \_\_\_\_\_

Yes No N/A

- Was an annual public meeting held in the past year to receive public comment?  
   Was the number of people in attendance at the annual meeting recorded?

- Was the storm sewer inventory map updated?  
   Was the facility inventory map updated?

#### Annual Employee Training

- Did training include the importance of protecting water quality?  
   Did training include illicit discharge detection and elimination?  
   Did training cover the requirements of the permit relevant to the job duties of the employee?  
   Did training include a schedule that establishes initial training for new and/or seasonal employees, and recurring training intervals for existing employees to address changes in procedures, practices, techniques, or requirements?  
   Was a list of topics covered, names of employees in attendance and date of event held documented?

#### Inspection Documentation

- Were all structural stormwater BMPs inspected?  
   Were at least 20% of all ponds and outfalls inspected?  
   Were 100% all ponds and outfalls inspected at least once during the 5-year permit cycle?  
   Were all stockpiles, storage and material handling areas inspected on a quarterly basis?  
   Was documentation kept for all inspections conducted?

#### Illicit Discharge Detection & Elimination

- Were there any reports of illicit discharges discovered or received?  
   Was the discovery documented and corrective actions taken?

#### Construction & Post-Construction Stormwater Management

- Were there any projects => 1 acre that required a SWPPP?  
   For projects requiring a SWPPP was the SWPPP checklist filled out during the site plan review process?  
   For projects requiring a SWPPP was the Construction Stormwater Inspection Checklist used to inspect the site during construction?  
   Are there any changes that need to be made to the SWPPP based upon how the community manages MCMs 1-6?  
   Does the MS4 have an approved TMDL with a Waste Load Allocation?  
   Does the MS4 own or operate any Alum or Ferric Chloride Phosphorus Treatment Systems?

Comments or Actions To Be Taken:

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# SWPPP and Subdivision / Non-Residential Lot Grading Review Checklist

## SWPPP Checklist Construction Stormwater Permit Program

**Note: The SWPPP being reviewed shall comply with the requirements of NPDES/SDS Permit MN R100001.**

### Review Information

Applicant: \_\_\_\_\_ Project name: \_\_\_\_\_  
 Application date: \_\_\_\_\_ Reviewer name: \_\_\_\_\_

SWPPP contains a combination of:	Notes												
<table border="0" style="width: 100%;"> <tr> <td style="width: 5%;"><b>Yes</b></td> <td style="width: 5%;"><b>N/A</b></td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Narrative</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Plan sheets</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Standard detail sheets (where appropriate)</td> </tr> </table>	<b>Yes</b>	<b>N/A</b>		<input type="checkbox"/>	<input type="checkbox"/>	Narrative	<input type="checkbox"/>	<input type="checkbox"/>	Plan sheets	<input type="checkbox"/>	<input type="checkbox"/>	Standard detail sheets (where appropriate)	_____ _____ _____ _____
<b>Yes</b>	<b>N/A</b>												
<input type="checkbox"/>	<input type="checkbox"/>	Narrative											
<input type="checkbox"/>	<input type="checkbox"/>	Plan sheets											
<input type="checkbox"/>	<input type="checkbox"/>	Standard detail sheets (where appropriate)											

### SWPPP Information (does the Narrative contain the following)

- | Yes                      | N/A                      |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Describe the nature of the construction activity?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Address the potential for a discharge of sediment and/or other potential pollutants from the site?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Propose erosion prevention and sediment control Best Management Practices (BMPs) to control the discharge of sediment and/or other potential pollutants (IV.F) from the site.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Identify the person knowledgeable and experienced who will oversee the implementation of the SWPPP; the installation, inspection, and maintenance of the BMPs.  |
| <input type="checkbox"/> | <input type="checkbox"/> | Identify the entity (name or title) responsible for performing future Operations and Maintenance (O&M) of the permanent stormwater management system?   |
| <input type="checkbox"/> | <input type="checkbox"/> | List the chain of responsibility for SWPPP implementation for all operators on the site?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Identify the training requirements are satisfied.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Include the designs and calculations for BMPs.  |
| <input type="checkbox"/> | <input type="checkbox"/> | Describe installation timing for all Erosion Sediment Control (ESC) Best Management Practices (BMPs)?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Describe procedures to amend the SWPPP and establish additional temporary ESC BMPs as necessary for site conditions?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Describe final stabilization methods for all exposed areas? (may be in narrative or on plan sheets)   |
| <input type="checkbox"/> | <input type="checkbox"/> | Identify stormwater management measures needed to mitigate impacts identified as a result of environmental, historical, archaeological, or rare species reviews conducted for the project?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Identify additional measures being taken to protect Drinking Water Supply Management Areas?   |
| <input type="checkbox"/> | <input type="checkbox"/> | If site discharges to special water or impaired reach, identify any site areas discharging to the special or impaired reach?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Methods used to minimize soil compaction and preserve topsoil must be described.  |
| <input type="checkbox"/> | <input type="checkbox"/> | Identify construction areas that are adjacent to and drain to Public Waters for which the Minnesota Department of Natural Resources (DNR) has promulgated "work in waters restrictions" during specified fish spawning time frames. |
| <input type="checkbox"/> | <input type="checkbox"/> | In designing the stormwater controls, the SWPPP must account for expected amount, frequency, intensity, and duration of precipitation.  |
| <input type="checkbox"/> | <input type="checkbox"/> | In designing the stormwater controls, the SWPPP must account for nature of stormwater runoff and run-on at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features.          |
| <input type="checkbox"/> | <input type="checkbox"/> | In designing the stormwater controls, the SWPPP must account for the range of soil particle sizes expected to be present on the site.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Identify any specific chemicals and the chemical treatment systems that may be used for enhancing the sedimentation process on the site, and how compliance will be achieved with the permit requirements.                          |
| <input type="checkbox"/> | <input type="checkbox"/> | For design requirements or SWPPP components where Permittee determines that compliance with the requirement is infeasible; the SWPPP must document that determination and the substitute BMPs.                                      |

Comments: \_\_\_\_\_

**Do plan sheets identify the following:**

- | Yes                      | N/A                      |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Existing and final grades.  |
| <input type="checkbox"/> | <input type="checkbox"/> | Locations and types of all temporary and permanent (including infiltration areas) ESC BMPs.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Stormwater flow directions and surface water divides for all pre- and post-construction drainage areas.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Impervious areas (Pre- and Post-Construction).  |
| <input type="checkbox"/> | <input type="checkbox"/> | Soil types.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Locations of potential pollutant-generating activities.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Locations of areas not to be disturbed (buffer zones).  |
| <input type="checkbox"/> | <input type="checkbox"/> | Tabulated quantities of all erosion prevention and sediment control BMPs.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Location of areas where construction will be phased to minimize duration of exposed soil areas.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Areas of steep (3:1 or greater slope).  |
| <input type="checkbox"/> | <input type="checkbox"/> | Locations of all wetlands, surface waters, and storm ponds that will receive pre- or post-construction site runoff. (If they do not fit on the plan sheets, use an arrow to note the direction and distance). |

Comments: \_\_\_\_\_

**Standard plates or specifications:**

- | Yes                      | N/A                      |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Are standard plates or specifications included where appropriate? |

**Part III - Stormwater Discharge Design Requirements**

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- | Yes                      | N/A                      |  |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
|--------------------------|--------------------------|--|-----|-----|--|--------------------------|--------------------------|---|--------------------------|--------------------------|---------------------------------------|--------------------------|--------------------------|---|--------------------------|--------------------------|--|--------------------------|--------------------------|--|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|---------------------------------------|--------------------------|--------------------------|---|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | For any stormwater flow that will be channelized at the site, the stormwater controls must be designed to control both peak flowrates and total stormwater volume to minimize erosion at outlets and to minimize downstream channel and streambank erosion.  |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
| <input type="checkbox"/> | <input type="checkbox"/> | Are <b>Temporary Sediment Basins</b> required on site? (10 acres draining to common location or 5 acres App. A)  |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
|                          |                          | If Yes, are they:  |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
|                          |                          | <table border="0"><thead><tr><th>Yes</th><th>N/A</th><th></th></tr></thead><tbody><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Adequately sized – 2-year, 24-hour storm, minimum 1,800 feet<sup>3</sup>/acre; <b>or</b> no calculative minimum 3,600ft<sup>3</sup>/acre?</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Designed to prevent short circuiting?</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Are outlets designed to remove floating debris?</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Are outlets designed to allow complete drawdown?</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Are outlets designed to withdraw water from the surface?</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Do outlets have energy dissipation?</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Have a stabilized emergency spillway?</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Sediment Basins must be situated outside of surface waters and any natural buffers.</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>If compliant temporary sediment basin is not feasible due to site limitations, equivalent sediment controls described.</td></tr></tbody></table> | Yes | N/A |  | <input type="checkbox"/> | <input type="checkbox"/> | Adequately sized – 2-year, 24-hour storm, minimum 1,800 feet <sup>3</sup> /acre; <b>or</b> no calculative minimum 3,600ft <sup>3</sup> /acre? | <input type="checkbox"/> | <input type="checkbox"/> | Designed to prevent short circuiting? | <input type="checkbox"/> | <input type="checkbox"/> | Are outlets designed to remove floating debris? | <input type="checkbox"/> | <input type="checkbox"/> | Are outlets designed to allow complete drawdown? | <input type="checkbox"/> | <input type="checkbox"/> | Are outlets designed to withdraw water from the surface? | <input type="checkbox"/> | <input type="checkbox"/> | Do outlets have energy dissipation? | <input type="checkbox"/> | <input type="checkbox"/> | Have a stabilized emergency spillway? | <input type="checkbox"/> | <input type="checkbox"/> | Sediment Basins must be situated outside of surface waters and any natural buffers. | <input type="checkbox"/> | <input type="checkbox"/> | If compliant temporary sediment basin is not feasible due to site limitations, equivalent sediment controls described. |
| Yes                      | N/A                      |  |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
| <input type="checkbox"/> | <input type="checkbox"/> | Adequately sized – 2-year, 24-hour storm, minimum 1,800 feet <sup>3</sup> /acre; <b>or</b> no calculative minimum 3,600ft <sup>3</sup> /acre?  |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
| <input type="checkbox"/> | <input type="checkbox"/> | Designed to prevent short circuiting?  |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
| <input type="checkbox"/> | <input type="checkbox"/> | Are outlets designed to remove floating debris?  |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
| <input type="checkbox"/> | <input type="checkbox"/> | Are outlets designed to allow complete drawdown?   |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
| <input type="checkbox"/> | <input type="checkbox"/> | Are outlets designed to withdraw water from the surface?   |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
| <input type="checkbox"/> | <input type="checkbox"/> | Do outlets have energy dissipation?  |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
| <input type="checkbox"/> | <input type="checkbox"/> | Have a stabilized emergency spillway?  |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
| <input type="checkbox"/> | <input type="checkbox"/> | Sediment Basins must be situated outside of surface waters and any natural buffers.  |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |
| <input type="checkbox"/> | <input type="checkbox"/> | If compliant temporary sediment basin is not feasible due to site limitations, equivalent sediment controls described.   |     |     |  |                          |                          |   |                          |                          |                                       |                          |                          |   |                          |                          |  |                          |                          |  |                          |                          |                                     |                          |                          |                                       |                          |                          |   |                          |                          |  |

Comments: \_\_\_\_\_

Yes	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<b>Permanent Stormwater Management System</b>

- | Yes                      | N/A                      |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Is calculation of new impervious surface included in SWPPP?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Is the project located in and complying with Municipal Separate Storm Sewer Systems (MS4) Permit permanent treatment in lieu of the permanent treatment requirements of this permit?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Are calculations for permanent stormwater management system included (water quality volume of one inch of runoff to be retained on site)?   |
| <input type="checkbox"/> | <input type="checkbox"/> | If infiltration is prohibited, other methods of volume reduction are considered.  |
| <input type="checkbox"/> | <input type="checkbox"/> | If infiltration is prohibited, the remainder of the water quality volume is treated by a wet sedimentation basin, filtration system, regional ponding or equivalent methods prior to the discharge of stormwater to surface waters. |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the proximity to bedrock preclude the installation of any of the permanent stormwater management practices?  |

If yes, has effort been made to provide some treatment using alternatives?

- | Yes                      | N/A                      |                    |
|--------------------------|--------------------------|--------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Grassed swales     |
| <input type="checkbox"/> | <input type="checkbox"/> | Filtration systems |
| <input type="checkbox"/> | <input type="checkbox"/> | Smaller ponds      |
| <input type="checkbox"/> | <input type="checkbox"/> | Grit chambers      |

**Which method of permanent stormwater treatment has been selected?**

Yes N/A

- Infiltration or filtration (infiltration basins, infiltration trenches, rainwater gardens, sand filters, organic filters, bioretention areas, and enhanced swales, dry storage ponds with underdrain discharge, off-line retention areas, and natural depressions).

Yes N/A

- Is infiltration/filtration appropriate to the site and land uses?
- Has the system been designed to maintain pre-existing conditions (e.g., do not breach a perched water table that is supporting a wetland)?
- Requirements to avoid excavation of the infiltration system until drainage area constructed and stabilized?
- Are rigorous sediment and erosion controls planned to keep sediment and runoff away from the system?
- Is a pretreatment device planned?
- Is the filtration system designed to remove at least 80% of total suspended solids?
- Is the system sufficient to infiltrate or filter the appropriate water quality volume of one inch?
- Can water quality volume be discharged through the infiltration/filtration system in 48 hours or less?
  - Additional flows must bypass and be routed through stabilized discharge point.
- Is there a way to visually verify the system is operating as designed?
- Has appropriate testing been conducted to ensure a minimum of three feet of separation to the seasonal water table and/or bedrock?
- Are calculations/computer model results included to demonstrate the design and adequacy of the infiltration or filtration system?
- Is adequate maintenance access provided?
- Is there a maintenance plan that identifies who will perform future maintenance?
- Infiltration is prohibited when the infiltration system will receive discharges from or be constructed in:
  - Areas where vehicle fueling and maintenance occur.
  - Areas with less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.
  - Areas where industrial facilities are not authorized to infiltrate industrial stormwater under an National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Industrial Stormwater Permit issued by the MPCA.
  - Areas where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating stormwater.
  - Areas of predominately Hydrological Soil Group D (clay) soils unless allowed by a local unit of government with a current MS4 Permit.
  - Areas within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features unless allowed by a local unit of government with a current MS4 permit.
  - Areas within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13., unless allowed by a local unit of government with a current MS4 Permit.
  - Areas where soil infiltration rates are more than 8.3 inches per hour unless soils are amended to slow the infiltration rate below 8.3 inches per hour or as allowed by a local unit of government with a current MS4 Permit.

Comments: \_\_\_\_\_

Yes N/A

**Wet sedimentation basin:**

Yes N/A

- Permanent volume of 1800 feet below outlet pipe for each acre draining.
- Minimum depth of 3 feet; maximum depth of 10 feet.
- Configured so scour or resuspension is minimized.
- Water quality volume is one inch (or remainder of volume not reduced) of runoff from new impervious surfaces.
- Basin outlets designed to discharge at less than 5.66 cubic feet per second (cfs) per acre of pond.
- Basin outlets designed to prevent short circuiting.
- Basin outlets designed to prevent discharge of floatables.
- Stabilized emergency overflow.
- Is adequate maintenance access provided?
- Location is outside of surface waters and any permanent natural buffers established under Appendix A.C.3
- Designed to avoid draining water from wetlands (unless the impact to the wetland is in compliance with the requirements of Appendix A.D).

Yes N/A

**Regional ponds:**

Yes N/A

- Is written authorization from owner of regional pond included in SWPPP?
- Is there no significant degradation of waterways between project and regional pond?
- Does regional pond design conform to the permit requirements for wet sedimentation basin?

**Record Retention Requirements must be addresses in the SWPPP:**

- The SWPPP including, all changes to it, and inspections and maintenance records must be kept at the site during construction by the Permittee(s) who has operational control of that portion of the site.

Comments: \_\_\_\_\_  
\_\_\_\_\_

## Part IV - Construction Activity Requirements

Yes N/A

**Addresses erosion prevention measures:**

Yes N/A

- Areas delineated on plans that are not to be disturbed or are areas where disturbance will be minimized.
- Areas of steep slopes will minimize disturbance or other techniques to minimize destabilization of steep slopes.
- Has appropriate construction phasing been implemented?
- Do exposed soils have erosion protection/cover initiated immediately and finished within 14 days (or 7 days Appendix A)?
- For DNR Public waters with "work in water restrictions" during specified fish spawning time frames, all exposed soil areas that are adjacent to and drain to these waters must complete the stabilization activities within 24 hours during the restriction period.
- Design includes stormwater conveyance channels to route water around unstabilized areas on the site and to reduce erosion, unless infeasible?
- Are wetted perimeters of ditches stabilized within 200 feet of surface water within 24 hours?
- Temporary or permanent ditches or swales that are being used as a sediment containment system during construction must be stabilized within 24 hours after no longer being used as a sediment containment system.
- Do pipe outlets have energy dissipation within 24 hours of connecting?
- Discharges from stormwater controls are directed to vegetated areas of the site (including any natural buffers) unless infeasible.

Comments: \_\_\_\_\_  
\_\_\_\_\_

Yes N/A

**Addresses sediment control measures:**

Yes N/A

- Are sediment control practices established on down gradient perimeters and upgradient of any buffer zones?
- Are all inlets protected?
- Do stockpiles have sediment control and directed to be placed in areas away from surface waters or natural buffers?
- Do construction site entrances minimize street tracking?
- Plans to minimize soil compaction and, unless infeasible to preserve topsoil.
- 50 foot natural buffers preserved or (if not feasible) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth disturbances and drains to the surface water.

Comments: \_\_\_\_\_  
\_\_\_\_\_

Yes N/A

**Addresses dewatering and basin draining:**

Yes N/A

- Is there a plan in place for dewatering to prevent nuisance conditions, erosion, or inundation of wetlands?
- If using filters with backwash water, either haul the backwash water away for disposal, return the backwash water to the beginning of the treatment process, or incorporate the backwash water into the site in a manner that does not erode into runoff.

Yes N/A

**Addresses inspections and maintenance:**

Yes N/A

- Identifies the person who will oversee the BMP inspection and maintenance?
- Inspections performed once every 7 days.
- Inspections performed within 24 hours of a rain event greater than 0.5 in/24 hours.
- Inspection and Maintenance records include:

Yes N/A

- Date and time of inspection.
- Name of person(s) conducting inspections.
- Finding of inspections, including the specific location where corrective actions are needed.
- Corrective actions taken (including dates, times, and party completing maintenance activities).
- Date and amount of rainfall events greater than 0.5 in/24 hours.
- Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, or by a weather station that is within one mile or by a weather reporting system.
- Requirements to observe, describe, and photograph any discharge that may be occurring during the inspection.

Yes N/A

**Maintenance performed**

Yes N/A

- All discovered nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs within 24 hours after discovery, or as soon as field conditions allow.
- Silt fence repaired/replaced/supplemented when nonfunctional, or one-half full; within 24 hours.
- Sediment basins drained and sediment removed when reaches one-half storage volume; within 72 hours.
- Sediment removed from surface waters within seven days.
- Construction site exits inspected, tracked sediment removed within 24 hours.
- All infiltration areas must be inspected for sediment from ongoing construction activity and that equipment is not being driven across the infiltration area.

Comments: \_\_\_\_\_  
\_\_\_\_\_

Yes N/A

**Addresses pollution prevention management measures:**

Yes N/A

- Storage, handling, and disposal of construction products, materials, and wastes.
- Fueling and maintenance of equipment or vehicles; spill prevention and response.
- Vehicle and equipment washing.
- No engine degreasing allowed on site.
- Containment of Concrete and other washout waste.
- Portable toilets are positioned so that they are secure.

Comments: \_\_\_\_\_  
\_\_\_\_\_

Yes N/A

**Addresses final stabilization:**

Yes N/A

- Stabilization by uniform perennial vegetative cover (70% density of its expected final growth).
- The permanent stormwater management system is constructed, meets all requirements, and is operating.
- Drainage ditches stabilized.
- All temporary synthetic and structural BMPs removed.
- Clean out sediment from conveyances and sedimentation basins (return to design capacity).
- If residential – temporary erosion protection and down gradient perimeter control has been completed and distribute homeowner factsheet.
- Submit Notice of Termination (NOT) to the MPCA.

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Requirements of Appendix A**

Yes N/A

Does this site drain to a discharge point on the project that is within one mile of a Special or Impaired Water?

Yes	N/A	Which type of special water?	BMP category
<input type="checkbox"/>	<input type="checkbox"/>	Wilderness Areas	C.1, C.2, C.3
<input type="checkbox"/>	<input type="checkbox"/>	Mississippi River	C.1, C.2, C.3
<input type="checkbox"/>	<input type="checkbox"/>	Scenic or Recreational river	C.1, C.2, C.3
<input type="checkbox"/>	<input type="checkbox"/>	Lake Superior	C.1, C.2, C.3
<input type="checkbox"/>	<input type="checkbox"/>	Lake Trout Lakes	C.1, C.2, C.3
<input type="checkbox"/>	<input type="checkbox"/>	Trout Lakes	C.1, C.2, C.3
<input type="checkbox"/>	<input type="checkbox"/>	Scientific and Natural areas	C.1, C.2, C.3
<input type="checkbox"/>	<input type="checkbox"/>	Trout Streams	C.1, C.2, C.3,C.4
<input type="checkbox"/>	<input type="checkbox"/>	Calcareous fens	C.1, C.2

Yes	N/A	Impaired water	BMP category
<input type="checkbox"/>	<input type="checkbox"/>	TMDL and/or WLA not yet approved	C.1, C.2
<input type="checkbox"/>	<input type="checkbox"/>	Approved TMDL and WLA	BMPs in TMDL

TMDL = Total Maximum Daily Loads  
WLA = Waste Load Allocations

**BMP category Requirement**

Yes N/A

- C.1 Stabilization initiated immediately and all soils protected in seven days/provide temp basin for five acres draining to common location.
- C.2 Treat water quality volume of one inch of runoff by retaining on site unless not feasible due to site conditions (See Part III.D.1. design requirements).
- C.3 Maintain buffer zone of 100 linear feet from Special Water.
- C.4 Temperature controls.

Comments: \_\_\_\_\_  
\_\_\_\_\_

Does this site have a discharge with the potential for adverse impact to wetlands:

Yes N/A

- Has the wetland mitigation sequence (avoid, minimize, mitigate) been followed/satisfied by?
  - Impact activity is permitted by either the Wetlands Conservation Act, DNR, or U.S. Army Corps of Engineers.
  - Compliance with 7050.0186 is documented to the MPCA and approved.

Comments: \_\_\_\_\_  
\_\_\_\_\_

# Subdivision and Non-Residential Lot Grading Review Checklist

## GENERAL

- NPDES permit including SWPPP is referred to on plan.
- Completed grading permit application form.
- Final grading plan is signed by a licensed professional.
- Submitted and signed Drainage Report.
- Owner name(s) and addresses listed on Grading Plan.
- Plan is 1"=50' or larger scale. North arrow shown.
- Plan is drawn in two-foot contours. All finished contours and adequate existing contours are labeled.
- Existing contours are dashed and proposed are solid.
- Directional arrows are shown for proposed drainage.
- Details of terrain and drainage are provided for areas adjacent to the proposed grading.
- Existing public and private utilities are shown.
- Boundaries of drainage areas shown (in drainage report).
- Soil types shown (in drainage report).
- Areas not to be disturbed clearly defined.
- All receiving waters, including wetlands, within 1 mile shown or identified, including impaired waters.
- Property limits are shown. Streets are labeled. Lot & block information. Street address shown, if known.
- Proposed sidewalk shown for commercial/industrial sites.
- County/MNDOT permit obtained for work in their ROW.
- The following areas are tabulated for residential (acres):
  - Total platted area (site area).
  - Total area disturbed.
  - Total developable area (excluding floodway, natural steep slopes, & wetlands).
- The following areas are tabulated for non-residential (acres):
  - Total project area.
  - Total impervious areas of project, existing & proposed.
  - Tabulation of total and impervious area by tax parcel.
- Schedule of BMP installation shown.
- BMP details included.
- Concrete washout management BMP addressed on plan.
- Dewatering activities discharge to treatment facility.
- All storm sewer inlets, existing and proposed have inlet protection/temporary sediment control that remains until up-slope areas are stabilized.
- Maximum unbroken 3:1 or steeper slope of 75 feet horlz.
- Control elevations for drainage ways are provided.
- Minimum slope of small drainage swales is 2%.
- Drainage easements for flow from more than 1 acre or 4 lots are seeded and protected with erosion control blankets or sodded. Blanket category specified per Mn/DOT 3885.2. Plan depicts required blanket locations.
- Temporary stockpiles include additional sediment control and temporary cover after 14 days.
- Percent of slope is shown for streets and drainage swales.
- Fill & cut property line setbacks are >2' for cut slope ht. >10' or fill slope ht.>4' and setback is dimensioned on the plans.
- All proposed lot corner elevations are shown.
- Proposed elevations of garage and lowest floor, ground at front and rear of building, along with the structure type are indicated on the plan.
- Top of foundation is minimum 6" above the ground.
- Grade 1' below top of foundation is 10' from building.
- Free board to structures, floor elevation or the grade adjacent to the building is at least 1' above any overflow elevation, and at least 2' above any 100-year water level, whichever is greater and min. 1' above FEMA flood elev.
- Drainage flows away from structures at min. 2%.
- Temporary or permanent diversion swales, stabilized with turf mat, pipe, riprap, are used at the top of slopes exceeding 4:1, when applicable.
- Minimum lot slopes for vegetated areas are 2% minimum.
- All exposed soil stabilized in 14 days.
- Soil within 1 mile of special & impaired waters -7 days.
- Temporary or permanent cover is indicated for all disturbed areas. Temporary seeding specifies seed mix including disk anchored mulch on all slopes > 200' or >5%.
- Permanent cover specifies 4" min. topsoil, seed mix and disk anchored mulch, or 4" min. topsoil and sod.
- Slopes steeper than 4: 1 and 4: 1 slopes longer than 30' are seeded and protected with erosion control blankets or sodded and staked. Blanket category specified per Mn/DOT 3885.2. Plan depicts required blanket locations.
- Statement that slopes steeper than 4: 1 are stable from land-sliding and surface erosion. Geotechnical report for slopes >3:1.
- For sites where temporary or permanent cover will not be complete by November 15; plan indicates adequate measures to control spring erosion & sedimentation.

## SITE GRADING, SEDIMENT & EROSION CONTROL

- Down-slope sediment control scheduled before grading.
- Adjacent property protected from drainage and sediment.
- Stabilized vehicle exit(s) are provided, minimize number.
- Silt fences are provided; in concentrated flow areas is "high flow, heavy duty" type specified.

# Subdivision and Non-Residential Lot Grading Review Checklist

## DRAINAGE SWALES & EASEMENTS

- Drainage and Utility easements are shown and labeled on the plan.
- Drainage easements are provided where concentrated flow is received from more than 1 adjacent lot and also where concentrated flow is received from more than 1 acre of adjacent property.
- 100-year flow is contained in an easement.
- Minimum drainage easements for flows from 1 acre or less or 4 lots or less are a minimum 20' wide. Ditch is a minimum of 2' deep with a 4' bottom and 4:1 slopes up to the easement line. 100-year runoff contained in easement.
- Stormwater management areas are platted as outlots. A facility that will serve only the lot on which it is located may be in a drainage easement on that lot.
- Emergency overflow with the high point elevation and direction of overflow are clearly marked on plans.
- Emergency overflow swale meets minimum drainage easement standards noted above.
- Easement documents are signed and submitted with recording fee or included in plat.

## OUTLETS & ENERGY DISSIPATION

- Velocity computations are provided for drainage easements where concentrated flow from more than 2 acres or 8 lots is directed.
- Where 10-year velocities exceed 5 ft/sec. permanent turf reinforcement mats are installed. Mats per Mn/DOT 3888.2 or manufacturer and product is specified. Plan depicts blanket locations and cross sections.
- Ditches within 200' of surface water or Property line stabilized in 24 hrs after connection.
- Discharge direction of flow generally 45 degrees or less to the flow direction of receiving ditch or stream.
- Discharges to rear property lines shall generally be piped to at least the rear property line.
- Where discharge pipe velocities are > 10 fps, or less, riprap and filter volumes are indicated in accordance with MnDOT Standard Plates.
- Where discharge pipe velocities are > 10 fps, energy dissipater is provided along with riprap and filter.
- Discharges on slopes steeper than 10% shall not be allowed unless discharge is into existing drainage ditch.
- Evaluation of downstream adequacy provided (capacity and stability).

## TEMPORARY SEDIMENT BASINS

- Principal and emergency spillway designed per BMP storm frequency standards.
- Fenced if slopes exceed 4:1.
- Plan requires any permanent or temporary sediment ponds to be constructed before other construction starts.
- For areas draining less than 10 acres alternative sediment control (5 acres within 1 mile of impaired waters).
  - Multiple lines of silt fence.
  - Small basins.
  - Vegetative strips (full permanent vegetation before upslope excavation).

## PERMANENT PONDS

- Entire drainage/service area shown (in drainage report).
- 50 scale or larger grading plan with pond cross-section.
- Where possible, provide a forebay at the inlet; locate inlet and outlet at opposite ends of pond; and provide length to width ratio >3.
- Inlets are at or below normal water level.
- 10:1 bench is provided for first 1' of depth below the normal water elevation.
- 4:1 max slope from normal water elevation to 100-year water elevation.
- 3:1 max slope below normal water elevation.
- Normal Water Elevation is shown.
- 100-year high water elevation is shown.
- Energy dissipation at outlet piping.
- Areas less than 1 acre not draining to a pond managed by:
  - Grassed swales
  - Small ponds
  - Grit chambers
  - Other \_\_\_\_\_
- Emergency overflow spillway is provided to accommodate 100-yr event. High point elevation and direction of overflow are marked on plans.
- Emergency overflow spillway is located to protect adjacent property and large fill sections.
- 100-yr runoff which is designed to flow to the pond does not bypass the pond; unmodeled 100-yr flow does not enter the pond.
- Minimum 10' width at top of dam (if dam is <15' high).
- Minimum 8' wide maintenance access and turn-around for maintenance vehicles is shown on a slope  $\leq$  15%, cross slope  $\leq$  6%.

## Subdivision and Non-Residential Lot Grading Review Checklist

- Seed mix Mn/DOT 33-261 or 33-361 for a 10' wide perimeter around the pond. Seed mix Mn/DOT 35-241 for the remainder of the pond outlot.
- DNR dam safety permit obtained if dam height is > 6' and storage to top of dam is > 15 acre-ft.

### INFILTRATION/FILTRATION

- Type(s) used:
  - Infiltration basins.
  - Infiltration trenches.
  - Rain gardens.
  - Sand filters.
  - Organic filters.
  - Bioretention.
  - Natural depressions (wetlands not included).
  - Other: \_\_\_\_\_
- Floatables removed before infiltration/filtration system.
- Site sensitivity analysis included.
- Evaluation of hydrologic impact included.
- Infiltration scheduled after full site development and stabilization.
- Runoff routed away from infiltration system during construction.
- Site controlled to minimize soil compaction.
- Pretreatment sediment removal included.
- Designed for 1" of runoff from total impervious surface areas for ultimate development, drains within 48 hours.
- System bypass for flows that cannot be filtered.
- Minimum vertical separation of 3' between seasonally saturated soils (or bedrock) and bottom of infiltration system.
- Soil test results, system capacity calculations, and computer modeling results included.
- Minimum 10' width maintenance access provided.
  - Infiltration systems not permitted for vehicle fueling or service areas.

### ALTERNATIVE AND COMBINED PRACTICES

- Combined practice (narrative in drainage report).
- Alternative practice (narrative in drainage report).
- Full calculations and plans included (narrative in drainage report).

# CONSTRUCTION SITE INSPECTION CHECKLIST

## Project Information

Project name: \_\_\_\_\_ Permit Number: \_\_\_\_\_

## Inspection Information

Inspector name: \_\_\_\_\_ Phone number: \_\_\_\_\_

Date (mm/dd/yyyy): \_\_\_\_\_ Time: \_\_\_\_\_  am  pm

Is this inspection routine or in response to a storm event:  Routine  Response

Rainfall amount (if applicable): \_\_\_\_\_

**Note:** If NA is selected at any time, specify **why** in the comment area for that section.

## Erosion Control Requirement (Part IV.B)

	Yes	No	NA
1. Have areas not to be disturbed been delineated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has all soil been stabilized where no construction activity has occurred for 14 days? (7 days were applicable, including stockpiles)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Have all constructed stormwater conveyance channels been stabilized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Have all ditches or swales been stabilized 200' back from point of discharge within 24 hours of connection to a surface water? (not mulch)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are there erosion BMP's for onsite stockpiles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Are appropriate BMP's installed protecting inlets/outlets?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Do pipe outlets have energy dissipation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Sediment Control Requirement (Part IV.C.)

	Yes	No	NA
1. Perimeter control installed on all down gradient perimeters?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Perimeter control trenched in where appropriate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. 50 Foot-natural buffer maintained around all surface waters?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If No, have redundant sediment controls been installed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Inlet protection on all catch basins and culvert inlets?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Vehicle tracking Best Management Practices (BMPs) at all site exits?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. All tracked sediment removed within 24 hours?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Are all infiltration systems staked and marked to avoid compaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Are all infiltration areas protected with a pretreatment device?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Do all stockpiles have perimeter control?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Maintenance-Erosion and Sediment Control BMPs (Part IV.E.)

	Yes	No	NA
1. Are all previously stabilized areas maintaining 90% ground cover?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Any ditch erosion observed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Perimeter Control – Has sediment reached one half the height of the device?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are inlet protection devices maintained and functioning properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# CONSTRUCTION SITE INSPECTION CHECKLIST

## Other

	Yes	No	NA
1. Are all materials that can leach pollutants under cover?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has access been restricted to onsite hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Does on-site fueling only occur in a contained area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are all solid wastes being properly disposed of?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is the concrete washout area completely contained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is the concrete washout area marked with a sign?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Were any discharges seen during this inspection, sediment, water, or otherwise? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, state the exact location of all points of discharge. Photograph the discharge and describe the discharge (color, odor, foam, oil sheen, etc). How will it be removed? How did the discharge happen? How much was discharged? How will it be stopped, and how long will it take to stop? Is the discharge going into an adjacent site? Was the discharge a sediment delta? If yes, will the delta be recovered within 7 days?  _____ _____			
8. Will a permanent stormwater management system be utilized in this project as required and in accordance with the permit? Describe:  _____ _____			
9. Is any dewatering occurring on site? <input type="checkbox"/> Yes <input type="checkbox"/> No Is dewatering being done properly, according to the permit? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA			
10. Is a copy of the SWPPP located on the construction site? <input type="checkbox"/> Yes <input type="checkbox"/> No			
11. Has the SWPPP been followed and implemented on site? <input type="checkbox"/> Yes <input type="checkbox"/> No			
12. Is a sedimentation basin required for this project? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, are they maintained as specified in the permit? <input type="checkbox"/> Yes <input type="checkbox"/> No			
13. Is the topsoil on this project being preserved as per permit? <input type="checkbox"/> Yes <input type="checkbox"/> No			
14. Are all infiltration systems marked to avoid compaction? <input type="checkbox"/> Yes <input type="checkbox"/> No Do all infiltration areas have pretreatment devices? <input type="checkbox"/> Yes <input type="checkbox"/> No			
15. Comments:  _____ _____ _____			

### Disclosures:

- After discovery, the Construction Stormwater General Permit, MN R100001, requires many of the deficiencies that may be found in this checklist be corrected within a specified period of time. See the permit for more details.
- This inspection checklist is an option for small construction sites. Large construction sites and linear projects require more extensive/more location specific inspection requirements.
- The Permittee(s) is/are responsible for the inspection and maintenance of temporary and permanent water quality management BMP's as well as erosion prevention and sediment control BMPs until another Permittee has obtained coverage under the Construction Stormwater General Permit, MN R100001, according to Part II.B.5., or the project has undergone Final Stabilization and a Notice of Termination has been submitted to the MPCA.

# Stockpile Inspection Form

Instructions: Inspect each stockpile quarterly. Submit stockpile inspection form directly after inspection is completed.

**Facility (circle one):**

Maintenance Facility

MOSS Site

**Stockpile Material (circle one):**

1 ½ Binder Rock

Ag-lime

Class 5 Gravel

Clean Black Dirt

Compost Pile

FA3 Gravel

Granite Sand

Gravel

Limestone Riprap

Salt

Sand

Spoils

Woodchip

Date: \_\_\_\_\_

Inspector: \_\_\_\_\_

**Describe condition of stockpile (erosion, run-off, tracking leaching):**

**Corrective actions required:**  Yes  No

**If yes, describe:**