STORMWATER POLLUTION PREVENTION PROGRAM

For Managing Anoka County's Municipal Separate Storm Sewer System

November 2023

Prepared for:
Anoka County
2100 3rd Avenue
Anoka, MN 55303

From:
WSB
701 Xenia Avenue South
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Introduction

In 1990, the U.S. EPA created the Municipal Separate Storm Sewer System (MS4) Program to address the concerns with stormwater pollution. In Minnesota, the program is administered by the MPCA.

This program requires approximately 300 cities, townships, counties, watershed districts, and large campuses such as universities, hospitals and prison complexes that operate their own private roads and stormwater drainage systems to comply with the MS4 program.

MS4 permittees are required to develop stormwater pollution prevention programs (SWPPP), educate the public about stormwater pollution, and engage citizens in solving local water pollution problems. The six categories of required action, known as minimum control measures, include:

1. Public education and outreach;
2. Public Participation and Involvement;
3. Illicit Discharge Detection and Elimination (illegal dumping into storm sewers and ditches);
4. Construction Site Stormwater Runoff Control;
5. Post Construction Stormwater Management; and
6. Pollution Prevention and Good Housekeeping [in municipal operations such as parks maintenance and public works].

The permit addresses concerns such as winter salt storage, construction site erosion and sediment control, and runoff from new development. Every five (5) years, the MPCA requires the permittees to renew their permit and make updates to their stormwater programs to remain in compliance.

This binder includes the information the City uses to remain in compliance with this permit.

What is an MS4 and How to Protect our Lakes

If you ask an average citizen what an MS4 is they likely would not know what it was, but MS4 plays into daily life for each any every one of us whether you know it or not. MS4 stands for Municipal Separate Storm Sewer System. Examples of this can be well known from roads, curb, stormwater drainage systems, to less known but equally as important such as drainage ditches, conveyances and other man-made channels that stormwater moves throughout our cities. The stormwater that moves through these systems can be polluted, is untreated, and discharges directly to bodies of water such as lakes and rivers that we use every day. These bodies of water are used for recreation and sometimes a source of drinking water for people. Therefore, it is important to understand how daily activities can impact these water sources.

Total maximum daily load (TMDL) is the amount of pollutants that a water body can absorb daily before water quality standards are impaired. Minnesota currently has 6,168 bodies of water that are impaired with some type of restriction whether it be sediment, nutrients, heavy metals, or bacteria. So, how can your average citizen lower the pollutant load carried by these MS4 conveyances?

Start with your lawn, fertilizer can have a large impact on algae blooms and oxygenation of our lakes and rivers. Apply fertilizers at the correct rate of application per acre listed on the bag. Fertilizers in Minnesota are required to have less than .7% Phosphorus in the fertilizer mix. All fertilizer bags have a three number reading that contains nitrogen, phosphorus, and potassium in that order. Every second number on your fertilizer bag should have zero as the middle number, representing 0 phosphorus (ex 20-0-13). When applying fertilizer, ensure that any excess fertilizer on the pavement is cleaned up immediately to prevent washouts to stormwater discharge basins. Leaves and grass clippings can also contain these nutrients, so it is pivotal to sweep after lawn mowing. It is also important to clean up animal droppings to prevent nutrient loading of local water ways from excess pet waste.

Leaks and spills are sources of pollution that can be picked up and carried away with each rainfall event. Vehicle maintenance can be a large source of leaking and spills. When working on vehicles, try to work inside an area that is covered. Check to make sure that once work is done nothing has spilled or leaked. Spilled chemicals need to be cleaned up with absorbents and swept up immediately. Any leaked materials such as fuel, oil, solvents, or grease can carry unwanted chemicals to waterways that will damage water quality. Labels on containers that say caution, warning, danger, or poison need to be disposed of at a hazardous waste facility. Each county will have a hazardous waste drop off sites where chemicals or spilled materials can be disposed of properly.

Salting practices on your property are also a great way to minimize water quality impacts at home. Salt contains chloride which is a labeled impairment on fifty lakes and streams in Minnesota. Safe salting practices are a great way to mitigate the amount of salt that ends up in stormwater conveyances. One cup of salt will safely melt about 250 square feet of paved area and can be applied at that rate. Excess salt that has accumulated once ice is gone is no longer functional. Extra salt materials can be swept up and disposed of to prevent water quality damage and stop vegetation from dying off and degradation of cement on your property.

These are all simple preventative actions that can be implemented by everyone to protect our lakes and streams. Preventing pollutants from reaching these MS4 conveyances can uphold water quality for fishing and recreation in the land of 10,000 lakes.

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APPENDICES

ACRONYMS

BMP	Best Management Practice
CGP	Construction General Permit
ECC	Erosion Control Coordinator
ERP	Enforcement Response Plan
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
ROW	Right-of-Way
SWPPP	Stormwater Pollution Prevention Plan
USEPA	United States Environmental Protection Agency

ENFORCEMENT RESPONSE PLAN

1 INTRODUCTION AND BACKGROUND

This Stormwater Enforcement Response Plan (ERP) codifies enforcement procedures used by Anoka County (County) to enforce provisions of its National Pollutant Discharge Elimination System (NPDES) Statewide Stormwater Permit No. MS400066 (hereafter referred to as the MS4 Permit). Under the MS4 permit, the County is to control the release of pollutants to and discharges from the municipal separate storm sewer system (MS4) which is owned or operated by the County through rules and regulations regulating stormwater discharges.

- Control the contribution of pollutants to the MS4 by stormwater and non-stormwater discharges associated with industrial activity and the quality of stormwater discharged from sites of industrial activity.

- Prohibit illicit discharges to the MS4.

- Control the discharge to the MS4 from spills, dumping, or disposal of materials other than stormwater.

- Require compliance with conditions in State statutes, rules, permits, contracts, and orders.

- Carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and non-compliance with permit conditions including the prohibition on illicit discharges to the MS4.

The County's MS4 consists of a conveyance or system of conveyances owned by the County that is designed or used for collecting or conveying stormwater, which is not a combined sewer, and which is not part of a publicly owned treatment works.

1.1 Purpose

This ERP describes the measures available to the County to exercise its authority. The ERP identifies enforcement procedures designed to encourage a timely response by the discharger. Implementation of the ERP will ensure a consistent response throughout the County and avoid confusion, delays, and disputes over enforcement for stormwater pollution prevention.

An effective enforcement program depends on detailed and comprehensive documentation of all contacts with the alleged violator and of all evidence establishing the violation. Investigations and enforcement actions must be handled quickly. The County is required by the Permit to investigate reports of illicit discharges and initiate enforcement action to eliminate the source(s) of the discharge.

1.2 Anoka County's Permit History

The County's current MS4 permit is issued by the State of Minnesota's Pollution Control Agency (MPCA). The scope of the permit includes all stormwater discharges associated with construction sites, industrial facilities, maintenance facilities, and other activities within the MS4's jurisdiction.

1.3 Types of Enforcement Actions

The County will use County Ordinance, permits, and penalties to enforce illicit discharges to the County's MS4 system. The County anticipates two general types of stormwater violations: construction sites and illicit discharges or connections to the County's MS4. Potential violators include construction contractors, businesses, industries, private citizens, and other governmental agencies which are detailed below.

1.3.1 Construction Sites

The County's construction contractors are required to obtain all required permits pertaining to land disturbance activities from various agencies. Permits could include watershed, DNR, City, or State permits.

To that end, the County has inspection oversight responsibility, and must ensure that a trained employee inspects construction activity at sites until final stabilization is achieved. The MS4 permit requires the County to implement a system to monitor contracted construction activities and to enforce Permit provisions. The County is required to list and describe all violations and enforcement responses taken for construction activities in the Annual Report submitted to MPCA.

The County's authority to take enforcement action at construction sites is derived from its County code along with permit language.

1.3.2 Illicit Discharges and Connections

The Permit also requires Anoka County to take measures to detect and eliminate illicit discharges and connections to the County's MS4. An illicit discharge is defined as any discharge to a MS4 that is not composed entirely of stormwater, with the exception of allowable non-stormwater discharges and separately permitted discharges. Illicit connections are defined as any man-made conveyance that connects an illicit discharge directly to the MS4. The County is required to implement a program to minimize, detect, investigate, and eliminate illicit discharges and connections, including unauthorized non-stormwater discharges and spills, into the MS4 system.

2 METHODS OF DISCOVERY OF NON-COMPLIANCE

Reports of a stormwater violation or non-compliance may come from one of several sources:

- Reports from County Staff – Illicit discharges and discharges of sediment or other pollutants from the construction sites, facilities, or other sources within the County's MS4 may be observed by County staff as they conduct normal activities such as driving to or from job sites or when inspecting other activities. Such non-compliances could include water and wind erosion, sediment tracking onto local streets, poor housekeeping, location of concrete washouts, and failed or ineffective best management practices (BMPs).

- Permit Compliance Activities – Non-compliances may be discovered through Permit-required inspections or monitoring, including construction site inspections.

- Contractor Compliance Activities – A construction contractor's failure to comply with the State's Construction General Permit requirements such as conducting and submitting inspection reports, obtaining annual certifications, preparing, and implementing Stormwater Pollution Prevention Plans (SWPPPs).

- Reports from the Public – Public complaints may come directly to County or through other local, state, or federal government agencies.

3 CONSTRUCTION AND POST-CONSTRUCTION CONTRACTOR ENFORCEMENT

This section imposes the obligation the Contractor to perform their duties in an honest, diligent, and cooperative manner.

The following section describes the County's authority and the mechanisms for enforcing Permit provisions on construction sites within the boundaries of the County's MS4 jurisdiction.

3.1 Contractor Compliance Requirements

Compliance with stormwater permits and laws on construction projects within the County's MS4 must be enforced according to these Enforcement Response Procedures.

- Contractors are to comply with the State's NPDES CGP, City, and Watershed permits for regulated construction projects, including the contractor's obligation to file a NOI and obtain authorization under the State CGP for each construction project or site. The contractor shall also file a NOT for each construction project or site, either terminating their responsibility if final stabilization has been achieved or transferring it to another contractor for completion.

3.2 Construction Contract Enforcement

When stormwater non-compliance is identified by the construction observer, County employee, or resident engineer, enforcement actions will be taken promptly but no later than 30 days following identification of the non-compliance. The County will take appropriate sanctions against the contractor based on the nature and severity of the situation. Non-compliances will be classified as minor or major violation. Major violations are generally those acts or omissions that lead to a discharge of pollutants to stormwater. Minor violations are generally instances of non-compliance that do not directly result in such a discharge. Serious discharges or an imminent threat of discharge on a project may require an immediate escalation to a higher level of enforcement. The level of enforcement response will depend upon several factors:

- Severity of the violation: the duration, quality, and quantity of pollutants, and effect on public safety and the environment
- The violator's knowledge (either negligent or intentional) of the regulations being violated
- A history of violations and /or enforcement actions individual or contractor
- The potential deterrent value of the enforcement action

The County will use the following progressive enforcement policy, escalating the response when a contractor fails to respond in a timely manner. If the County identifies a deficiency in the implementation of the approved SWPPP or amendments and the deficiency is not corrected immediately or by a date requested by the County. the project is in non-compliance. The recommended sequence of enforcement actions is detailed below.

3.2.1 Verbal Warning

This action is a verbal exchange between an inspector or the resident engineer and the alleged violator. The information exchanged will be documented by the inspector. Typically, no letter is written if the problem is corrected immediately, and the inspector or resident engineer observes the corrective action and deems it appropriate.

3.2.2 Written Warning

A warning letter may be issued if the non-compliance continues for 30 days after the verbal warning is issued, if the non-compliance cannot be corrected while the inspector or resident engineer is on site, or if the non-compliance is a significant violation. The warning letter will document the reasons why the discharge is illegal and provide deadline for compliance.

Typically, compliance is required within 30 days to avoid additional enforcement actions; however, if the situation warrants, shorter or longer deadlines maybe permissible. A sample letter to violators is provided in Appendix A.

3.2.3 Revocation of Permits

If the restoration letter does not result in corrective action by the documented deadline, the County may revoke the permit(s) issued for the project.

3.2.3.1 Substantial Breach

The County may revoke any Right of Way Permit, without a fee refund, if there is a substantial breach of the terms and conditions of any statute, ordinance, rule or regulation, or any material condition of the permit including a threat to the safety of workers, or the right of way user or the utility users.

3.2.3.2 Written Notice of Breach

If the County determines that the permittee has committed a substantial breach of a term or condition of any statute, ordinance, rule regulation or any condition of the permit, the County will make a written demand upon the permittee to remedy the violation. Continued violations will cause for revocation of the permit.

Within 24 hours of receiving the Notice of Breach, the permittee must provide the County with a plan, acceptable to the County that will remedy the breach. If the permittee fails to respond to the County, or the permittee's plan is inacceptable, or the permittee fails to reasonably implement the approved plan, the County may revoke the permit and/or place the permittee on probation for one full year. A sample Notice of Breach is provided in Appendix A.

3.2.3.3 Automatic Revocation

If a permittee, while on probation, commits a breach, the permittee's permit will automatically be revoked and the permittee will not be allowed further permits for one full year, except for emergency repairs.

4 ILLICIT DISCHARGES AND CONNECTION ENFORCEMENT

The County is responsible for monitoring discharges to its MS4. The Permit requires the County to ensure that discharges from its MS4 do not cause or contribute to an exceedance of water quality standards. In addition, neighboring property owners are not allowed to occupy, use, or interfere with public ROW without permission. Any discharge/connection without permission is an illegal encroachment on the County's MS4. A discharge/connection can be discovered in two ways, either through routine inspection or due to a complaint.

Similarly, to the process in **Section 3**, notification of observed illicit connections or discharges will be carried forward to the alleged connector/discharger by the inspector or observer. The County will use the following progressive contract enforcement policy, escalating the response when a discharger fails to respond in a timely manner.

4.1 Verbal Warning

When a routine inspection of the drainage system identifies an illegal connection/discharge to the County's MS4 system, the inspector will document the discharge on an Illicit Discharge Detection and Elimination (IDDE) inspection form, which will be provided to Maintenance Supervisor within 48 hours.

If the source of the connection is evident, the observer/inspector will contact the connector/discharger directly by phone or in person to discuss elimination. The communication will include requesting any permits or other authorizations and providing a follow update (within 15 days). If the discharge is permitted or authorized (documentation is required), no further action is required; if the discharge is not authorized, it will need to be addressed or ceased within 15 days.

4.2 Written Warning

If after 15 days the illicit connection/discharge has not been corrected, the Maintenance Supervisor will issue a "Notice of Illegal Discharge and Demand for Corrective Action" letter to the property owner (example letter in Appendix B). The letter will request that the connection/discharge be ceased or removed within 30 days. A follow up inspection will be performed by the Maintenance Supervisor ensure compliance. If the connection/discharge has not been corrected, the incident will be referred internally to the County Engineer for further review.

4.3 Removal of Connection/Discharge

The County may remove the illegal connection/discharge if it has not been corrected within the initial 60 days of observation timeframe. If the County removes the illegal connection/discharge, the responsible party is subject to civil action for damages.

4.4 Civil Action

If the illegal connection/discharge is not corrected within 60 days of observation, the County Attorney may forward the matter to local enforcement authority. Additional measures will be escalated as needed to achieve compliance.

4.4.1 Minnesota Pollution Control Agency

Authority to administer the state MS4 permit in Minnesota rests with the MPCA. The MPCA has several enforcement mechanisms for violations of NPDES rules, including fines. In compliance with the provisions of the federal Clean Water Act (CWA), as amended, (33 U.S.C. 1251 et seq); 40 CFR Parts 122, 123, and 124, as amended; Minnesota Statutes Chapters 115 and 116, as amended; and Minnesota Rules Chapter 7001 and 7090.

4.4.2 United States Environmental Protection Agency

Although the USEPA delegated authority for the NPDES Program to the state of Minnesota, the USEPA reserves the authority to apply fines in addition to fines issued by the MPCA. Federal environmental regulations based on the Clean Water Act allow the USEPA to levy fines on dischargers of up to $27,500 per day per violation.

5 EMERGENCY RESPONSE CONDITIONS

The County's MS4 Permit identifies "discharges from emergency situations where federal rules specify washing as the preferred method to assure public safety" as an authorized non-stormwater discharge. Such discharges will not be subject to enforcement action.

6 REPORTING REQUIREMENTS

The County shall provide a list and description of all violations and their resolutions, including any enforcement actions taken against contractors, corporations, or other entity in the Annual Report to MPCA. At a minimum, the inspector should document the source of the complaint, the date, the time, the contact person (if any), a description of the nature of the non-compliance or illicit discharge, actions taken, and final resolution.

At a minimum, the County shall document the following for each MCM:

1. Name of the person responsible for violating the terms and conditions of the permittee's regulatory mechanism(s).
2. Date(s) and location(s) of the observed violation(s).
3. Description of the violation(s).
4. Corrective action(s) (including completion schedule) issued by the permittee.
5. Referrals to other regulatory organizations (if any).
6. Date(s) violation(s) resolved.

Anoka County
TRANSPORTATION DIVISION
Highway

Joe MacPhearson, PE
County Engineer

DATE _____

SAMPLE

Permit Holder Name
Address 1
Address 2
City, State, Zip

SENT VIA E-MAIL
& USPS

RE: Anoka County Permit No. _____
Location of Work

Dear_____:

Regarding the above-referenced permit, ACHD is very concerned with the manner that the work in this quadrant was completed. It has caused significant damage even though all facilities were properly located as per GSOC. The damaged handhole ring shall be replaced **immediately**. **(Insert Permit Holder Name) will have until 3:00 pm, Thursday, April 3, 2025 to complete this repair.**

In regards to the electrical box/pad, (Insert Permit Holder Name) shall provide proof that they have contacted electrical utility regarding this damage and a restoration plan is in effect and approved by the electrical company. **This proof shall be submitted to ACHD by 3:00 pm, Thursday, April 3, 2025.**

Consequently, (Insert Permit Holder Name) has 72 hours to submit their action plan for restoration/repair of the entire work area. This action plan shall include precise details of all restoration/repairs.

In addition, this letter is to serve as Anoka County Highway Department's (ACHD) official notice to (Insert Permit Holder Name) that all current permits and all future permits are on hold, effective immediately until all issues with Permit _____ are determined. All costs related to the full restoration/repair and any costs incurred as a result of the existing damage, shall be the responsibility of (Insert Permit Holder Name).

Sincerely,

XXXXXXXX
Traffic Tech I

Attach photos, documentation, etc.

NOTICE OF ILLEGAL DISCHARGE OR CONNECTION

Person or Business Name
Address
City, MN

Dear Property Owner:

Anoka County is responsible for maintaining the storm sewer system. The Minnesota Pollution Control Agency (MPCA) Municipal Separate Storm Sewer System General Permit requires the County to control the amount of pollutants entering the drainage system. Part of this charge is the detection and elimination of illegal discharges or connections to the system that may contain pollutants or are otherwise not allowed. Left uncorrected, any pollutants entering the system will ultimately impact nearby streams, as storm drainage is not treated at any sort of treatment facility. Any discharge/connection without permission is illegal and requires immediate termination of the discharge.

An inspection of the drainage system has occurred in the vicinity of your property and an illegal connection/discharge was discovered entering into the County system. The discharge/connection was discovered on <insert date> at <insert business name and address>.

Indicators or Source include piping and staining.

Photographs of this discharge/connection are enclosed with this letter. In addition, I have enclosed an aerial photograph showing the location of this discharge/connection.

This discharge or connection must be ceased or removed within 30 days. A follow-up investigation will be conducted after that time to ensure compliance. If the situation is not corrected, the County will take corrective measures, including but not limited to referring this matter to the MPCA so that enforcement action can be taken, which may include the issuance of a fine. In the alternative, the County may remove the discharge/connection and bill you directly pursuant County Code. If the illegal discharge/connection cannot be removed within 30 days, you do not understand this notice, or you disagree that an illegal discharge/connection exists at your property, please contact me with further details or explanation by calling (763) 324-3137 or by email at Jim.Plemon@co.anoka.mn.us.

Sincerely,

Jim Plemon
Maintenance Superintendent
1440 Bunker Lane Blvd NW
Andover, MN 55304

Enclosure (photographs)

Cc:

Anoka County MS4 Calendar

Introduction

When it rains or when snow melts in our communities, the water travels on impervious surfaces. Impervious surfaces are surfaces that don't allow water to soak into it. Examples of these surfaces include roads, sidewalks/trails, driveways, rooftops, and more.

Water travels on these surfaces into storm drains which directly discharge into lakes, rivers, streams, and wetlands. As the water travels, it can pick up pollutants with it such as oils, metals, road salt, trash, and more.

The system of storm drains that you see in your community is a municipal separate storm sewer system (MS4). It consists of roads with drainage systems, catch basins, curbs, gutters, ditches, channels, etc.

These systems are owned or operated by a public entity. This can include cities, counties, military bases, universities, and more. In Minnesota, these systems must satisfy the MS4 permit if they are at least one of the following:

- Located in an urbanized area and used by a population of 1,000 or more
- Owned by a municipality with a population of 10,000 or more
- Have a population of at least 5,000 and the system discharges to specially classified bodies of water.

The MS4 permit is designed to reduce the amount of pollutants entering state waters from stormwater systems. Public entities that own or operate a MS4 permit are required to implement a Stormwater Pollution Prevention Program (SWPPP) to reduce the amount of pollutants to the system. An effective SWPPP has six components called Minimum Control Measures (MCMs).

Contacts

Name	Title	Department	Phone	Email
Joe MacPherson P.E.	County Engineer	Administration	(763) 324-3199	joe.macpherson@co.anoka.mn.us
Amy Honer	Operations Manager	Administration	(763) 324-3178	Amy.Honer@co.anoka.mn.us
Jerry Auge P.E.	Assistant County Engineer	Engineering	(763) 324-3103	jerry.auge@co.anoka.mn.us
Jason Orcutt	Program Delivery Manager	Engineering	(763) 324-3115	Jason.orcutt@co.anoka.mn.us

Schedule

Month	Topic	Month	Topic
January	Salt Use	July	Smart Irrigation
February	Pet Waste	August	Invasive Species
March	Illicit Discharge	September	Pet Waste
April	Adopt a Drain	October	Leaves
May	Landscaping	November	Salt Use
June	Fertilizers	December	Trash

January – Salt Use

To help melt snow and ice during the winter months, salt is applied to the roads. As the snow and ice melts, it travels into stormwater systems. Because of salt, the concentration of Chloride has increased in surface and ground water. Chloride does not degrade in soil and water, and it can create toxic conditions for fish and other animals that live in our lakes and streams.

Tips for Anoka County Residents

- Follow the manufacturer's instructions
- Store de-icing material and salt under a covered hard surface storage area indoors
- Keep walkways shoveled
- Mix sand with salt to use less to deicing salt
- Apply the deicing salt sparingly and conservatively in areas of highest foot traffic.

February – Pet Waste

When pet waste is left uncollected, it gets washed into the stormwater systems and into our lakes and rivers. It then decays in the water, releasing ammonia and depleting oxygen levels. This is harmful to fish and other animals. These nutrients also promote weed and algae growth, as well as elevated bacteria levels (E. Coli) that can cause unsafe conditions for recreational activities.

Tips for Anoka County Residents

- Install a smart sprinkler system
- Collect & save rainwater for smaller gardens
- Water at the right time according to your location

- Replace turf with native plants

March – Illicit Discharge

Storm sewer systems carry water directly into our lakes, rivers, and wetlands. If anything other than stormwater enters the system, it is an illicit discharge. Substances can include oil, chemicals, sediment, and more.

Tips for Anoka County Residents

- Install a smart sprinkler system
- Collect & save rainwater for smaller gardens
- Water at the right time according to your location
- Replace turf with native plants

April – Adopt a Drain

Adopt-a-Drain is a program where residents can adopt a storm drain in their neighborhood. They are responsible to keep it clear of leaves, trash, and other debris to reduce water pollution. Residents volunteer fifteen minutes, twice a month, for cleaner waterways and healthier communities. Sign up online to Adopt a Drain in your neighborhood!

Tips for Anoka County Residents

- Keep your drain clear by sweeping leaves, trash, and other debris off the drain surface year-round.
- Let friends and neighbors know about small things they can do at home to prevent water pollution
- Track your impact by keeping an estimated total of the debris you collect

May – Landscaping

Landscaping has the potential to deposit materials such as grass clippings and bush trimmings onto hard surfaces before being carried into the storm drainage system. Floatable landscaping materials such as mulch can as well enter stormwater detention areas or other areas where stormwater runoff can carry them into the storm drainage system. Keep all outdoor work areas neat and tidy. Public open spaces not checked for pet waste prior to landscaping can also lead to discharge into our lakes and rivers.

Tips for Anoka County Residents

- Leave grass clippings on lawns or use them as mulch or compost
- Control weeds
- Sweep your sidewalk, driveway, or street of grass clippings
- Plant a garden for rain and wildlife

June – Fertilizers

The health and beauty of lawns and natural areas take the application of some fertilizers; however, improper use and excessive application can lead to discharge into our storm sewers, our lakes, and rivers. When fertilizers enter surface water, they nutrients that promote microorganism growth, reduced dissolved oxygen, and impair aquatic life.

Tips for Anoka County Residents

- Apply fertilizers with the manufacturer's recommendations ("Read the Label")
- Avoid excess application of fertilizer
- Fertilize at the right time
- Sweep the hard surfaces where fertilizers may have fallen

July – Smart Irrigation

July is Smart Irrigation Month due to the peak water use because of warm temperatures, little rainfall, and water restrictions. The industry campaign's motive is to increase public awareness of the value of water-use efficiency.

Tips for Anoka County Residents

- Install a smart sprinkler system
- Collect & save rainwater for smaller gardens
- Water at the right time according to your location
- Replace turf with native plants

August – Invasive Species

An invasive species is an organism not native to an environment that is introduced, becomes overpopulated, and harms its new environment. Invasive species which can be both terrestrial and aquatic species threaten the biological diversity, function, and sustainability of plant, animal communities, and aquatic environments.

Tips for Anoka County Residents

- Clean hiking and fishing gear
- Plant native species in your yard and garden
- Fish using native bait if possible
- Clean your boat before transferring to a new body of water

September – Pet Waste

When pet waste is left uncollected, it gets washed into the stormwater systems and into our lakes and rivers. It then decays in the water, releasing ammonia and depleting oxygen levels. This is harmful to fish and other animals. These nutrients also promote weed and algae growth, as well as elevated bacteria levels (E. Coli) that can cause unsafe conditions for recreational activities.

Tips for Anoka County Residents

- Remove all of your pet's waste from streets, lawns, and sidewalks
- Dispose of your pet's waste in a covered waste container

October - Leaves

Organic yard waste such as leaves decomposes and restores nutrients and organic matter into the soil. When they enter out lakes and rivers, these nutrients feed unwanted algae and further deplete the dissolved oxygen in these bodies of water. Street sweeping of leaves from County streets, parking lots and sidewalks prevents them from being washed into storm sewers and surface waters.

Tips for Anoka County Residents

- Rake leaves only when you need to or use them as fertilizer
- Properly dispose of raked leaves in yard waste bins/bags/facilities
- Don't sweep or blow leaves into the street

November – Salt Use

To help melt snow and ice during the winter months, salt is applied to the roads. As the snow and ice melts, it travels into stormwater systems. Because of salt, the concentration of Chloride has increased in surface and ground water. Chloride does not degrade in soil and water, and it can create toxic conditions for fish and other animals that live in our lakes and streams.

Tips for Anoka County Residents

- Follow the manufacturer's instructions
- Store de-icing material and salt under a covered hard surface storage area indoors
- Keep walkways shoveled
- Mix sand with salt to use less to deicing salt
- Apply the deicing salt sparingly and conservatively in areas of highest foot traffic.

December – Trash

The potential for pollutants can occur if garbage and garbage bins are not improperly disposed of. Illegal dumping of non-hazardous household waste and improper dumping of food waste and yard waste in our streets, storm drains, wetlands, lakes, and other water bodies pollutes surface waters. Non-hazardous household waste includes items such as tires, furniture, common household appliances and other bulk items. Yard waste includes any organic debris such as grass clippings, leaves, and tree branches. Food waste includes any organic and inorganic food items and containers containing food.

Tips for Anoka County Residents

- Keep areas around garbage bins clean of all garbage.
- Ensure trash are within a closed trash disposal bag before being placed in the garbage bin
- Ensure garbage bins are located on a flat hard surface
- Have garbage bins emptied regularly to keep from overfilling.
- Wash out bins or dumpsters as needed to keep odors from becoming a problem
- Separate trash and recyclable items in their respective bins

Minimum Control Measure 1
Public Education and Outreach

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MINIMUM CONTROL MEASURE 1

1. INTRODUCTION

1.1 Basis for the Standard Operating Procedures (SOPs)

The MS4 General Permit requires Anoka County to develop and implement a public education and participation program for the purpose of informing the public of the impact stormwater discharges have on waterbodies and the actions they can take to reduce the discharge of pollutants to stormwater. This manual not only assists Anoka County in meeting the MS4 Permit requirements, but helps promote behavior changes to improve the water quality of the County's water resources.

1.2 Objectives of the SOPs

Anoka County or its designee will raise awareness to the audience involved by providing information on stormwater pollution prevention, effects of illicit discharges, best management practices, components of the SWPPP and outside entity resources available to County residents and business owners.

2. LOCATING PRIORITY AREAS

Anoka County has identified potential priority topics for public education, outreach, and participation, primarily based on land use and overall population demographics. Other topics that the County must provide annual education and outreach on include residential BMPs and yard waste. Consideration shall be given to low income, people of color, and non-English speaking people.

Priority items for public education identified:

- Pet waste
- Salt Storage and Deicing Materials
- Promoting adoption of residential best management practices (BMPs)
- Yard waste
- Household chemicals

The County is recommended to evaluate their high priority education topics at least once during each five-year permit term and update as needed.

3. DISTRIBUTION OF EDUCATIONAL MATERIALS

Anoka County has identified a variety of opportunities to distribute educational materials to their residents and business owners (Appendix A). On an annual basis the County shall distribute at least two (2) educational information specifically selected for stormwater-related issues of high priority. At least once each calendar year, the County shall distribute educational materials or equivalent outreach focused on illicit discharge recognition and the reporting of illicit discharges. The County is recommended to evaluate the distribution methods used annually during the permit term and update as needed.

At least once each calendar year, the County shall distribute educational materials or equivalent outreach to residents, businesses, commercial facilities, and institutions, focused on the following:

1. impacts of deicing salt use on receiving waters.
2. methods to reduce deicing salt use.
3. proper storage of salt or other deicing materials.
4. impacts of pet waste on receiving waters.
5. proper management of pet waste.
6. any existing permittee regulatory mechanism(s) for pet waste.

Distribution of educational materials and information will primarily be done through the County's website and an annual newsletter. While the annual newsletter will target residents, and local business, the stormwater-related event and County website will target residents.

The County will continue to annually distribute and make available education materials related to topics the County finds to be of high priority.

4. IMPLEMENTATION OF EDCATIONAL PROGRAMS

Anoka County has an Education and Outreach Implementation Plan consisting of:

a. Identification of a target audience:
    1. Residents
    2. Local businesses
    3. Low-income residents
    4. People of color
    5. Non-native English-speaking residents

b. Designation of the responsible person(s) in charge of overall plan implementation:
    1. Anoka County Water Resources Outreach Collaboratives (WROC) Engagement Coordinator and the Transportation Planner

c. Specific activities and schedules to reach measurable goals for each target audience.

d. A description of any coordination with and/or use of other stormwater education and

outreach programs being conducted by other entities, as applicable.

e. Tracking mechanisms to record estimated quantities of materials, estimate audience, etc.

f. An annual evaluation to measure the extent to which measurable goals for each target audience are attained.

A copy of the County's Education and Outreach Implementation Plan is provided in the appendices (Appendix A).

5. DOCUMENTATION

Anoka County has a procedure to document the public education and outreach program. The County is recommended to evaluate and assess the effectiveness of the education program annually, during the permit term. The program documentation consists of the following:

a. Identification and description of any specific stormwater-related issues identified by the permittee recorded during each year of the permit coverage

b. Specific activities and schedules to reach measurable goals for each target audience

c. Information for any coordination with and/or use of other stormwater education and outreach programs being conducted by other entities, as applicable

d. Annual evaluation of measurable goals

e. A description of all specific stormwater-related issues the County identified

f. All information required under the County's education and outreach plan

g. Activities held, including dates, to reach each target audience

h. Quantities and descriptions of educational materials distributed, including dates distributed

i. Estimated audience (e.g., number of participants, viewers, readers, listeners, etc.) for each completed education and outreach activity.

Anoka County shall conduct an annual assessment of the public education program to evaluate program compliance, the status of achieving the measurable requirements (activities that must be documented or tracked as applicable to the MCM (e.g., education and outreach efforts, implementation of written plans, etc.)) in Section 16 of the MS4 General Permit and determine how

the program might be improved. The County shall perform the annual assessment prior to completion of each annual report and document any modifications made to the program because of the annual assessment.

Anoka County MS4 Program

Education & Outreach

Introduction to the MS4 Permit

When it rains or when snow melts in our communities, the water travels on impervious surfaces. Impervious surfaces are surfaces that don't allow water to soak into it. Examples of these surfaces include roads, sidewalks/trails, driveways, rooftops, and more.

Water travels on these surfaces into storm drains which directly discharge into lakes, rivers, streams, and wetlands. As the water travels, it can pick up pollutants with it such as oils, metals, road salt, trash, and more.

The system of storm drains that you see in your community is a municipal separate storm sewer system (MS4). It consists of roads with drainage systems, catch basins, curbs, gutters, ditches, channels, etc.

These systems are owned or operated by a public entity. This can include cities, counties, military bases, universities, and more. In Minnesota, these systems must satisfy the MS4 permit if they are at least one of the following:

- Located in an urbanized area and used by a population of 1,000 or more
- Owned by a municipality with a population of 10,000 or more
- Have a population of at least 5,000 and the system discharges to specially classified bodies of water.

The MS4 permit is designed to reduce the amount of pollutants entering state waters from stormwater systems. Public entities that own or operate a MS4 permit are required to implement a Stormwater Pollution Prevention Program (SWPPP) to reduce the amount of pollutants to the system. An effective SWPPP has six components called Minimum Control Measures (MCMs).

MCM 1: Public Education & Outreach

To keep stormwater systems and state waters free of pollutants, the public should be educated and informed on how to prevent and identify pollutants. The MS4 permittee is required to develop an education program for their communities. This can be done through programs such as "Adopt a Drain", "Storm Drain Stenciling", and "Rain Barrel".

MCM 2: Public Participation/Involvement

With the help of residents, businesses, and other industries, stormwater can be managed and protected more efficiently. The MS4 permittee is required to motivate their communities to take action through volunteer events and/or programs. This can be done through community cleanup events, promotion videos, and campaigns.

MCM 3: Illicit Discharge Detection & Elimination

Anything that enters a storm drain or state waters that is not uncontaminated stormwater is an illicit discharge. Substances can include oil, chemicals, sediment, and more. The MS4 permittee is required to develop a program to detect and eliminate illicit discharges through the stormwater system.

MCM 4: Construction Site Stormwater Control

When a site is being constructed, many pollutants can come with it. Some pollutants can contaminate water and soil such as paint, oil, cement, and other construction materials. The MS4 permittee is required to control pollutants that come from construction sites so they do not enter the stormwater system. This can be done through erosion, sediment, and waste control measures through the *Construction Stormwater Permit*.

MCM 5: Post-Construction Stormwater Management

An impervious surface is an area that doesn't allow water to seep into the ground. This causes negative impacts to stormwater such as an increase in pollutants and/or increased runoff volumes. The MS4 permittee is required to control pollutants and runoff volumes post-construction due to the increase of impervious surfaces.

MCM 6: Pollution Prevention/Good Housekeeping

Common pollutants include sand and salt for de-icing, fertilizers and pesticides, and vehicle fuel and maintenance chemicals. The MS4 permittee is required to prevent pollution at the source rather than restore waters once they have been polluted.

Minimum Control Measure 2
Public Participation/Involvement

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MINIMUM CONTROL MEASURE 2

1. INTRODUCTION

1.1 Objectives of the SOPs

The MS4 General Permit requires Anoka County to provide an annual opportunity to solicit public input on the SWPPP and involve the public in activities that improve or protect water quality.

2. ANNUAL OPPORTUNITY FOR PUBLIC COMMENT

Anoka County will provide a minimum of one (1) opportunity annually for the public to provide input on the adequacy of the SWPPP. The County will conduct at least one public meeting annually and will provide public notice, per the County's public notice requirements in advance of the meeting. The County shall provide this opportunity by posting a notification of the draft annual report and contact information to review the draft report, and SWPPP document.

The County will provide public access to the SWPPP, annual reports, and other documentation intended to support the SWPPP. Physical copies of the SWPPP may be available upon request.

The County will consider oral and written input submitted by the public to the permittee, regarding the SWPPP. If input is submitted by the public, County staff will record the comment and the County's response. If any modifications are made to the SWPPP because of public input, the amendment will be documented and recorded with the SWPPP.

3. ANNUAL PUBLIC INVOLVEMENT ACTIVITY

Each year, Anoka County will provide a minimum of one (1) public involvement activity that includes a pollution prevention or water quality theme. To meet this requirement, the County shall provide the following:

a. Rain barrel distribution event
b. Household hazardous waste collection day
c. Anoka County Fair Booth - (Fertilizing Tips, Reduce Waste Handout, Summer Lawn Care Tips)
d. Metro Area Children's Water Festival.
e. Pollinator landscape contest

4. DOCUMENTATION

The program documentation consists of the following:

a. All relevant written input submitted by persons regarding the SWPPP.
b. All responses from the County to written input received regarding the SWPPP, including any modifications to the SWPPP because of written input received.

c. Dates, estimated attendance, and locations of events held for purposes of meeting permit requirements.
d. Notices provided to the public of any events scheduled to meet the permit requirements for public input and consideration.
e. Date(s), location(s), description of activities, and estimated number of participants at events held.

Anoka County shall conduct an annual assessment of the Public Participation/Involvement program to evaluate program compliance, the status of achieving the measurable requirements (activities that must be documented or tracked as applicable to the MCM (e.g., public input and involvement opportunities, etc.)) in Section 17 of the MS4 General Permit and determine how the program might be improved. Anoka County shall perform the annual assessment prior to completion of each annual report and document any modifications made to the program because of the annual assessment.

Minimum Control Measure 3
Illicit Discharge Detection and Elimination

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1. INTRODUCTION

1.1 Basis for the Standard Operating Procedures (SOPs)

The Minnesota Pollution Control Agency reissues their National Pollutant Discharge Elimination System (NPDES) General Permit (GP) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). The MS4 GP requires Anoka County to develop written procedures for the purpose of eliminating non-stormwater discharges through the development of an Illicit Discharge Detection and Elimination Program.

This manual not only assists Anoka County in meeting the Stormwater Phase II regulations but encourages them to use targeted best management practices (BMPs) to prevent the discharge of non-stormwater related discharges. This Guidelines and Standard Operating Procedures Manual will help promote behavior to improve the water quality of Anoka County's lakes, ponds, and creeks. This manual as well assists Anoka County in the creation of a regulatory mechanism to prohibit illicit discharges.

1.2 Objectives of the SOPs

This manual is intended to provide guidance on Illicit Discharge Detection and Elimination (IDDE) as follows:

- Provide guidance to communities regarding commonly found illicit discharges.
- Provide guidance to communities for prioritizing areas where illicit discharges are commonly found.
- Provides guidance in implementing a pet waste and salt storage regulatory mechanism.
    - Provide tools that require owners or custodians of pets to remove and properly dispose of feces on the County's owned land areas.
    - Provide tools that require proper salt storage at commercial, institutional, and non-NPDES permitted industrial facilities. At a minimum, the regulatory mechanism(s) must require the following:
        a. designated salt storage areas must be covered or indoors.
        b. designated salt storage areas must be located on an impervious surface; and
        c. implementation of practices to reduce exposure when transferring material in designated salt storage areas (e.g., sweeping, diversions, and/or containment).
- Provide tools for response to reported illicit discharges.

2. LOCATING PRIORITY AREAS

A map of the County's MS4 has been provided in (Appendix B) that identifies potential priority areas for detecting illicit discharges based on land use. The methodology for further establishing priority areas is detailed in **Section 2.1**. Anoka County is recommended to complete the prioritization at least once during each five-year permit term.

2.1 Review of Available Information

Activities and Definition

Priority areas for IDDE will vary depending on water quality conditions, land use associated with business, or industrial activities, etc. A relatively simple desktop assessment of available community information can provide many clues as to where illicit discharges may be occurring for basing the prioritization.

The definition of illicit discharge includes any discharge to the MS4 storm sewer that is not stormwater including, leaking sanitary sewers or water mains, illegal sewage connections, illegal floor drain connections, seasonal draining of swimming pools (pools are recommended to be dechlorinated prior to discharge), break-out from failing septic systems, discharge of vehicle/equipment washing into the storm sewer, spills and dumping (Appendix A).

Preparation

The following is a list of resources that should be collected and reviewed and a brief description of factors to consider during the prioritization process:

a. Zoning Maps
   Industrial areas with high density development may have a high illicit discharge potential.

b. Locations of Previous Illicit Discharges
   Areas with historical illicit discharge reports or previous citizen complaints should be considered high priority.

c. Areas with Storage of Significant Materials
   Areas that have storage of significant materials, including but not limited to raw materials, fuels, materials such as solvents, detergents, and plastic pellets, etc. should be considered high priority.

2.2 Mapping Verification Process

a. Anoka County shall incorporate illicit discharge detection into all inspection and

maintenance activities conducted.

b. The County shall maintain a written or mapped inventory of priority areas the County identifies as having a higher likelihood for illicit discharges. At a minimum, the County shall evaluate the following for potential inclusion in the inventory:

    - Land uses associated with business/industrial activities.
    - Areas where illicit discharges have been identified in the past; and
    - Areas with storage of significant materials that could result in an illicit discharge.

c. Using existing maps as a basis for locations, field personnel should start a mapping verification process by walking all named waterbodies within a given area of the community and collecting outfall location and design information using global positioning system (GPS) equipment capable of sub-meter (approximately 3 foot) accuracy. Use of a data logger and data collection software will allow the generation of GIS files that will be useful for many years.

d. Review and field check other structures catch basins, culverts, pipes, ditches, drain manholes, including:

    - All pipes 12-inches or greater in diameter, including flow direction
    - Outfalls, including a unique identifier and associated geographic coordinates
    - Structural stormwater BMPs that are part of the MS4
    - All receiving waters

e. Collect dry weather inspection information whenever possible. Dry weather discharge information can either be collected on the paper forms for manual entry into a separate database at a later time or can be directly entered into a database on a laptop or the data logger on-site.

f. Mark the outfall with its identifier for future location and easy reference using pre-manufactured signs.

g. The County shall conduct additional illicit discharge inspections in areas identified as priority areas.

2.3 Detection Process

An Outfall Inspection Form (Appendix C) can be used during mapping. The form should be completed whenever evidence of an illicit discharge is observed such as significant flow during dry weather, the presence of raw sewage indicators, staining, or residue. If the municipality is using paper forms to document inspections, they should complete an Outfall Inspection Form (Appendix C) even if there is no evidence of an illicit discharge.

Long-term, regular inspections of outfalls are a primary part of an effective IDDE program. Regular inspections will not be significantly different from inspections conducted during mapping. The Outfall Inspection Form can be used (Appendix C). The major difference from mapping inspections will be that a crew or inspector will have historical data to work with to make assessments. These inspections can be recorded in an electronic database or paper forms can be kept.

Most public works crews conduct their regular duties in and around the storm drain system. A Program Manager may elect to have crews conduct outfall inspections on a formal basis (bringing an inspection form and equipment) while performing other work, or the Program Manager may elect to have crews informally "keep a look out" for illicit discharges. If an employee observes evidence of an illicit discharge during an informal or non-routine inspection, they should collect as much information about the potential illicit discharge as possible, then contact their supervisor so that appropriate action can be taken.

It is important to collect as much information as possible at the time of initial observation because of the likelihood that a discharge may be transitory or intermittent. Initial identification of the likely or potential sources of the discharge is also very important.

Once an illicit discharge has been reported or detected, the next step is to locate the source. Selection of tracing techniques will depend on the type of illicit discharge detected, the information collected during initial discovery and observation (whether through an inspection by a county employee or through a citizen call-in), and the resources/technology available to the County. A single technique may be used, or several techniques may need to be combined to identify the source of the discharge. There are three types of discharges:

a. Transitory illicit discharges: Typically, one-time events resulting from spills, breaks, dumping, or accidents. Transitory illicit discharges are often reported to an authority through a citizen complaint line or following observation by a municipal employee during regular duties. Because they are not recurring, they are the most difficult to identify, trace, and remove. The best method to reduce transitory discharges is through public education, education of municipal response personnel, tracking of discharge locations, and enforcement of an illicit discharge policy.

b. Intermittent illicit discharges occur occasionally over a period (several hours per day, or a few days per year). Intermittent discharges can result from legal connections to the storm drain system, such as a legal sump pump connection that is illegally discharging anything other than groundwater. Intermittent discharges can also result from activities such as drum washing in exterior areas. These types of discharges are less likely to be discovered, and are more difficult to trace and remove, because they generally occur on private property and require probable cause and/or a search warrant for further investigation. These discharges can have large or small impacts on waterbodies

depending on pollutant content and the size of the receiving water body.

c. Continuous illicit discharges are typically the result of a direct connection from a sanitary sewer, overflow from a malfunctioning septic system, inflow from a nearby subsurface sanitary sewer that is malfunctioning, or an illegal connection from a commercial or industrial facility. Continuous illicit discharges are usually easiest to trace and can have the greatest pollutant load (CWP 2004).

The investigative techniques used will depend on whether a potential source location was identified during the initial observation. Investigative techniques are as follows:

a. Potential source identified: If a potential source for the illicit discharge was initially identified, steps should be taken to investigate the potential source site, such as inspecting the site and storm drain system in the vicinity of the site. If floor drains, sumps, or other suspect discharge locations are observed during this inspection, dye testing, smoke testing, electronic location of subsurface pipes, or televising may be used. These techniques should definitively show whether the suspect site was the source of the illicit discharge.

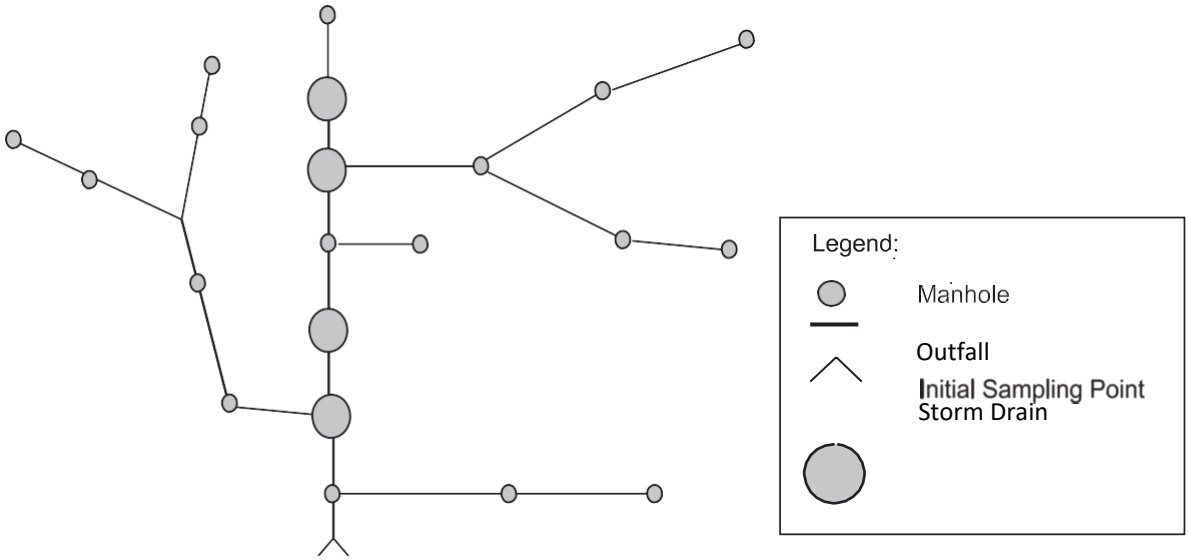
b. Potential source not identified: If no source site is suspected, and only the general area of the illicit discharge is known, it may be possible to trace the evidence of the illicit discharge by visual inspection of the storm drain access points. If this catch basin/manhole inspection technique is not fruitful, some interim steps could be taken to try to trap water from an intermittent discharge. For example, sand bagging and damming or block testing of selected storm drain access points, combined with installation of an optical brightener trap to assess if detergents are present in a discharge, can help reveal the source of the discharge. If these techniques have no positive result (no water pools behind the weir or sandbag), the discharge was likely transitory (one time only), and it may not be possible to determine its origin. In this case, the location of the originally reported illicit discharge should be added to a regular inspection program to provide for the possibility of future incidents. If the original report of the illicit discharge was severe or gross pollution, then smoke testing or televising of the storm drain system may be warranted.

It is necessary to understand the tracing technique and its limitation to select an effective tracing technique. The following is a summary of each of the tracing techniques that may be used to locate the source of an illicit discharge:

c. Visual Inspection at manholes/catch basins: This tracing technique is typically used when there is no suspected source site. It is the most cost effective and efficient method of tracing. Structures should be systematically inspected starting at the initial detection location, gradually working upstream through the system. If the crew is tracking a continuous discharge, the inspections may be

relatively easy and the flow can be tracked back to its source. If the crew is attempting to track a transitory or intermittent discharge, the crew should make the following observations depending on the information provided from the initial identification: color and clarity of any discharges; staining or deposits on bottom of structure; oil sheen, scum, or foam on any standing fluids in sump of structure; odors, staining or deposits on inlet pipes and outlet pipes.

Depending on what the crew is looking for and what they find, they will progressively inspect additional structures until either a potential source is found, or no further evidence is found. If no further evidence is found, the crew may elect to further assess some of the structures by installing sandbags or other damming devices to determine if the discharge recurs. Crews should use standard safety procedures when conducting these inspections such as cone placement and safety vests in traffic areas, confined space entry techniques (if entry is necessary), steel-toed boots, etc.



a. Sampling flowing discharges: Samples should be collected only in the event a discharge is flowing through the outfall. Stagnant pools of water or sump water should not be sampled. If the municipal staff will be collecting the sample, the staff should be trained in safety and proper collection techniques. Table 1. lists the parameters that a sample may be analyzed for and provides a general discussion of how the results may be interpreted.

Table 1. Threshold Levels for Screening Parameters Used in Illicit Discharge Surveys

Parameter	Threshold	Source
Ammonia	>0.1 mg/L	Brown et al (2004)
E. coli	>235 CFU/100 ml (grab sample	EPA (1986)
Total Coliform	>10,000 CFU/100 ml (grab sample)	California state standard (Dorfman and Rosselot, 2011)
Fluoride	>0.25 mg/L	Brown et al (2004)
Detergents	>0.25 mg/L	Brown et al (2004)
Potassium	>6 ppm	Guidance extrapolated from Lilly and Sturm (2010)

This table was taken from the CWP manual (2004) which provides a more detailed discussion of sampling procedures and analysis of results. Sampling and analysis for many of the compounds should be completed by personnel trained in collection, handling, and preservation techniques to ensure accurate data. EPA guidance recommends collecting a sample when the discharge is initially found and after any source is removed. The sample collected after removing an illicit discharge can indicate if other illicit discharges are present.

b. Sandbagging or damming: Sandbagging and damming is typically only conducted when the discharge flow has ceased since initial detection. Application of this technique will show whether the discharge is one time only (no water pools behind the sandbag or dam) or intermittent (water pools behind the sandbag). CWP provides the following explanation:

1. This technique involves placement of sandbags or similar barriers such as caulk dams within strategic manholes in the storm drain network to form a temporary dam that collects any intermittent flows that may occur. Any flow collected behind the sandbag is then assessed using visual observations or by indicator sampling. Sandbags are lowered on a rope through the manhole to form a dam along the bottom of the storm drain, taking care not to fully block the pipe (in case it rains before the sandbag is retrieved). Sandbags are typically installed at junctions in the network to eliminate contributing branches from further consideration. If no flow collects behind the sandbag, the upstream pipe network can be ruled out as a source of the intermittent discharge. Sandbags are typically left in place for no more than 48 hours and should only be installed when dry weather is forecast. Sandbags should not be left in place during a heavy rainstorm. They may cause a blockage in the storm drain or they may be washed downstream and lost. The biggest downside to sandbagging and damming is that it requires at least two trips to each manhole (CWP 2004, p. 157).

c. Optical brightener monitoring traps: Optical brightener monitoring (OBM) traps can be used to trace intermittent or transitory discharges that result from wash water with

detergent. Detergents usually contain optical brighteners that can be detected at high concentrations using this method. However, the traps only detect highly concentrated discharges. The detergent concentration required to be detected by the light is approximately the same as pure wash water from a washing machine. Consequently, OBM traps may be best suited as a simple indicator of the presence or absence of intermittent flow or to detect the most concentrated flows. The traps can be made using easily acquired materials. The traps contain an absorbent, unbleached cotton pad or fabric swatch contained inside a wire mesh trap or section of small diameter (e.g., 2-inch) PVC pipe. The traps should be anchored to the inside of an outfall at the invert using wire or monofilament that is secured to the pipe itself. Rocks or bricks with holes can be used as temporary weights to hold the trap in place.

Field crews can retrieve the OBM traps after 24 to 72 hours of dry weather. OBM traps need to be retrieved before encountering stormwater, which will contaminate the trap or wash it away. When placed under a long wave fluorescent ultraviolet or "black" light, an OBM trap will indicate if it has been exposed to detergents. CWP reports that OBM traps have been used with some success in Massachusetts (Sargeant et al. 1998) and northern Virginia (Waye 2000). For more detailed guidance on how to use OBM traps and interpret the results, see the Reference section for World Wide Web links to the studies and guidance manuals cited above.

d. Dye testing: Dye testing is typically conducted when a potential source site has been identified, and the crew is trying to determine whether the site has floor drains or other locations that connect and discharge to the storm drain system. Permission to access the site must be obtained before dye testing can be conducted. Verbal or written requests are both acceptable. The crew should review available sanitary sewer and storm drain maps before conducting the dye testing. The dye testing procedure consists of two steps: (1) discharging the dye into the suspect location, and (2) opening nearby storm drain and sanitary sewer manhole covers to determine where the dye discharges to.

   This procedure is effective for confirming direct connections into the storm drain system for short reaches. If a longer pipe network is being evaluated, charcoal packets can be left in selected structures and later collected and analyzed for the presence of the dye. If dye testing on porcelain structures, tablets or charcoal should be wrapped in tissue before depositing. When dye testing, the crew should keep in mind that each structure (sink, toilet, etc.) should be tested separately. Many times, a single utility in a basement may be incorrectly connected to a storm drain line instead of a sanitary line.

e. Televising: Televised video inspections are a useful technique when an illicit connection or infiltration from a nearby sanitary sewer is suspected, but little evidence of the illicit discharge remains behind. Two types of video cameras are available for use:

1. A small camera that can be manually pushed on a stiff cable through storm drains to observe the interior of the piping, or
2. A larger remote operated video camera on treads or wheels that can be guided through storm drains to view the interior of the pipe. Typically, the operator of the camera has access to a keyboard or audio voice-over to record significant findings on the videotape that is produced for future review and evaluation.

f. Smoke testing: Smoke testing is a useful technique for tracing intermittent discharges or continuous discharges that have no apparent source site. Smoke is introduced into the storm drain system and emerges at locations that are connected to the system. Smoke testing works best for short reaches of pipe, or in situations where pipe diameters are too small for video testing.
Notifying the public about the date and purpose of smoke testing before starting is critical. The smoke used is non-toxic, but can cause respiratory irritation, which can be a problem for some residents. Residents should be notified at least two weeks prior to testing, and should be provided the following information (Hurco Technologies, Inc. 2003):

1. Date testing will occur
2. Reason for smoke testing
3. Precautions they can take to prevent smoke from entering their homes or businesses
4. What they need to do if smoke enters their home or business, and any health concerns associated with the smoke
5. A number of residents can call to relay any health concerns (e.g., chronic respiratory problems)

2.4 Citizen Call-In Program

Activities and Definition

a. Working with citizens is an effective way to identify illicit discharges. The "Report-a-Concern" section on Anoka County's website will be publicized in the community. To maximize the effectiveness of citizen reporting, dispatch personnel should be instructed on the use of the IDDE Inspection Form to collect as much information as possible at the time of the report (Appendix D). Dispatch personnel should also be instructed as to where to direct the information gathered from the tracking sheet so that appropriate action is taken.

b. The Maintenance Supervisor should identify who should be trained, and where the "Report-a-Concern" information will be publicized in the community.

Preparation

a. Have a system in place to receive phone calls and collect information regarding suspected illicit discharges.

Process

a. Use the IDDE Inspection Form (Appendix D) to collect the appropriate information from the caller. Then, transfer the IDDE Inspection Form to the corresponding fire department in Anoka County where the illicit discharge is discovered, and the Maintenance Supervisor will assist, as needed.

b. Promptly investigate reported incidents.

c. If an illicit discharge of unknown source is confirmed, follow the procedure of Tracing Illicit Discharges.

d. If an illicit discharge known source is confirmed:

1. For Non-Emergency Situations: Follow the Illicit Discharges and Connection Enforcement policy outlined in the County's Enforcement Response Procedures (Appendix E)
2. For Spills and Emergency Situations: Follow the County's Spill Response Plan (Appendix F).

2.5 Tracking Illicit Discharges

a. Developing a long-term tracking program can help Program Managers better understand the origins of illicit discharges and identify maintenance issues for the storm drain system structures. A tracking program will also facilitate evaluation of the overall IDDE program and will expedite annual reporting. An effective tracking program should address illicit discharge and maintenance issues resulting from the following:

1. Citizen complaints
2. Opportunistic inspections
3. Regular longer-term inspections
4. Removal actions taken for illicit discharges

b. Anoka County staff will record the following items in an IDDE log to track the number and location of illicit discharges and follow-up (Table 2):

Table 2. Example Illicit Discharge Database Attributes

Date of Incident/ Date Reported:	Report Initiated by: Phone, drop-in, contact information (optional), etc.	Location of Discharge: If known - lat/long, stream address or outfall #, closest street address, nearby landmark, etc.	Description of Discharge: For example - dumping, wash water, suds, oil/solvents/chemicals, sewage, etc.	Actions to be taken: Who, What, Where, When, and How… (what should be done)	Description of Resolution: Outcome of actions taken and any necessary follow-up (what was done)	Date Resolved

Process

Anoka County shall maintain written procedures for investigating, locating, and eliminating the source of illicit discharges. The County shall specify the Highway Maintenance Superintendent as the person responsible for investigating, locating, and eliminating an illicit discharge. The procedures shall include:

a. A timeframe in which the County will investigate a reported illicit discharge.
b. Use of visual inspections to detect and track the source of an illicit discharge.
c. Tools to investigate and locate an illicit discharge.
d. Cleanup methods available to the County to remove an illicit discharge or spill.

Tools to investigate and locate an illicit discharge shall include:

a. Mobile Cameras
b. Smoke testing
c. Dye testing
d. Optical Brightener Monitoring Traps

2.6 Opportunistic Illicit Discharge Observation

Activities and Definition

Opportunistic illicit discharge observations are identified because of locating illicit discharges during routine County activities, which may include building inspections, system maintenance, etc.

Preparation

a. Be alert for potential illicit discharges to the municipal stormwater system while going about normal work activates.

Process

a. Call central dispatch.

b. Assess the general area of the illicit discharge to see if you can identify its source.

c. Whenever possible, take photographs of the suspected illicit discharge.

d. Responding Maintenance Supervisor will complete the following:

1. Use the Outfall Inspection Form to document observations (Appendix C).
2. Obtain sample for visual observation and complete an IDDE Inspection Form (Appendix D), if applicable.
3. Follow the procedure of IDDE – Tracing Illicit Discharges.

e. If clean-up is required, use the following procedures:

a. For Non-Emergency Situations: Follow the Illicit Discharges and Connection Enforcement policy outlined in the County's Enforcement Response Procedures (Appendix E).
b. For Spills and Emergency Situations: Follow the County's Spill Response Plan (Appendix F).

Documentation

a. Date(s) and location(s) of IDDE inspections conducted.
b. Reports of alleged illicit discharges received, including date(s) of the report(s), and any follow-up action(s) taken by the County.
c. Date(s) of discovery of all illicit discharges.
d. Identification of outfalls, or other areas, where illicit discharges have been discovered.
e. Sources (including a description and the responsible party) of illicit discharges (if known).
f. Action(s) taken by the County, including date(s), to address discovered illicit discharges.
g. File all completed forms (i.e., Outfall Inspection Form, IDDE Inspection Form, Work Orders, etc.)
h. Document any further action taken.

2.7 Training

Activities and Definition

Training of County staff will be important so that they are aware of the importance of Illicit Discharge Detection and Elimination. This includes knowledge in identifying illicit discharges and procedures to report and document them.

Training of field staff will as well be important in identifying illicit discharges and procedures to report and document them. At least once each calendar year, the County shall train all field staff in illicit discharge recognition (including conditions which could

cause illicit discharges) and reporting illicit discharges for further investigation. Staff will be trained through emails and field training.

Previously trained individuals will attend a refresher-training every three (3) calendar years following the initial training. These staff will be trained through videos, emails, and field training.

The following list gives the yearly training required for departments and the people involved:

a. Employees of County owned or operated facilities:
   Including water quality impacts associated with illicit discharges and improper disposal of waste.

b. MS4 engineers, development and plan review staff, land use planners:
   Post-construction stormwater control requirements and associated BMPs.

c. Field Staff:
   Identification, investigation, termination, cleanup, and reporting of illicit discharges.

d. Office Staff:
   Illicit discharge reporting.

e. Field and Other Staff:
   Implementation of the construction and post-construction stormwater program, including permitting, plan review, inspections, and enforcement.

f. All employees:
   Employees who have primary construction, operation, or maintenance job functions that are likely to impact stormwater quality, in addition to law enforcement and emergency services personnel (i.e., fire department) who may be responsible for identifying illicit discharges.

Anoka County shall document the following training matters:

a. General subject matter covered
b. Names and departments of individuals in attendance
c. Date of each event

2.8 Enforcement Response Procedure

Activities and Definition

To the extent allowable under state or local law, Anoka County shall develop, implement, and enforce a regulatory mechanism(s) that prohibits non-stormwater discharges into the County's MS4, except those non-stormwater discharges authorized in item 3.2.

Anoka County shall maintain written enforcement response procedures (ERPs) to compel compliance with the regulatory mechanism(s). Such enforcement tools include timeframes to complete corrective actions and the name or position title of responsible person(s) for conducting enforcement. The following enforcement tools are used:

A. Verbal Warning
B. Notice of Violation
C. Fine
D. Removal of Connection/Discharge

Documentation

Anoka County shall document the following relating to ERPs:

A. Name of the person responsible for violating the terms and conditions of the County's regulatory mechanism(s).
B. Date(s) and location(s) of the observed violation(s).
C. Description of the violation(s).
D. Corrective action(s) (including completion schedule) that the County issued.
E. Referrals to other regulatory organizations (if any).
F. Date(s) violation(s) resolved.

The County shall conduct an annual assessment of the IDDE program to evaluate program compliance, the status of achieving the measurable requirements (activities that must be documented or tracked as applicable to the MCM (e.g., trainings, inventory, inspections, enforcement, etc.)) in Section 18 of the MS4 General permit and determine how the program might be improved. The County shall perform the annual assessment prior to completion of each annual report and document any modifications made to the program because of the annual assessment.

REFERENCES

Center for Watershed Protection. 2004. Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments. Center for Watershed Protection, Ellicott City, MD & University of Alabama, Tuscaloosa, AL.

Sargent, D. and W. Casonguay. 1998. An Optical Brightener Handbook. Prepared for: The Eight Towns and the Bay Committee. Ipswich, MA. Available at: http://www.naturecompass.org/8tb/sampling/index.html.

Waye, D. 2003. A New Tool for Tracing Human Sewage in Waterbodies: Optical Brightener Monitoring. Northern Virginia Regional Commission. Annandale, VA. Available online http://www.novaregion.org/pdf/OBM_Abstract2.pdf.

Appendix A: Definitions

Authorized Enforcement Agency: Anoka County.

Best Management Practices (BMPs): schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

Clean Water Act: The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

Construction Activity: Activities subject to NPDES Construction Permits. These include construction projects resulting in land disturbance of one acre or more. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.

Hazardous Materials: Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Illegal Discharge: Any direct or indirect non-storm water discharge to the storm drain system, except as exempted in this ordinance.

Illicit Discharge Types:

> **Transitory illicit discharges:** Typically one-time events resulting from spills, breaks, dumping, or accidents. Transitory illicit discharges are often reported to an authority through a citizen complaint line or following observation by a municipal employee during regular duties. Because they are not recurring, they are the most difficult to identify, trace, and remove. The best method to reduce transitory discharges is through general public education, education of municipal response personnel, tracking of discharge locations, and enforcement of an illicit discharge ordinance.
>
> **Intermittent illicit discharges:** Occur occasionally over a period of time (several hours per day, or a few days per year). Intermittent discharges can result from legal connections to the storm drain system, such as a legal sump pump connection that is illegally discharging anything other than groundwater. Intermittent discharges can also result from activities such as drum washing in exterior areas. These types of discharges are more likely to be discovered, and are less difficult to trace and remove, but can still present significant challenges. These discharges can have large or small impacts on waterbodies depending on pollutant content and the size of the receiving water body.

Continuous illicit discharges: These are typically the result of a direct connection from a sanitary sewer, overflow from a malfunctioning septic system, inflow from a nearby subsurface sanitary sewer that is malfunctioning, or an illegal connection from a commercial or industrial facility. Continuous illicit discharges are usually easiest to trace and can have the greatest pollutant load (CWP 2004).

Illicit Connections: An illicit connection is defined as any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency or, any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

Industrial Activity: Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b)(14).

Minnesota Pollution Control Agency (MPCA): The Minnesota Pollution Control Agency is a Minnesota state agency that monitors environmental quality, offers technical and financial assistance, and enforces environmental regulations for the State of Minnesota.

Municipal Separate Storm Sewer Systems (MS4): A municipal separate storm sewer system is a conveyance or system of conveyances that is owned or operated by a public entity (which can include cities, townships, counties, military bases, hospitals, highway departments, universities, etc.) and is designed or used for collecting or conveying stormwater, which are not part of a publicly owned wastewater treatment system.

National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit: means a permit issued by EPA (or by a State under authority delegated pursuant to 33 USC § 1342 (b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual group, or general area-wide basis.

Non-Storm Water Discharge: Any discharge to the storm drain system that is not composed entirely of storm water.

Person: Any individual, association, organization, partnership, firm, corporation or other entity recognized by law and action as either the owner or as the owner's agent.

Pollutant: Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, pesticides, herbicides, and fertilizers; hazardous substances and wastes and

residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Premises: Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

Standard Operating Procedures (SOPs): Established or prescribed methods to be followed routinely for the performance of designated MS4 operations or in designated situations.

Storm Drain System: Publicly-owned facilities by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

Stormwater: Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

Stormwater Pollution Prevention Plan: A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

Wastewater: Any water or other liquid, other than uncontaminated storm water, discharged from a facility.

Illicit Discharge Detection and Elimination - High Priority Areas

Anoka County, MN
2020 MS4 General Permit Item 18.10
mapped data available at larger scale

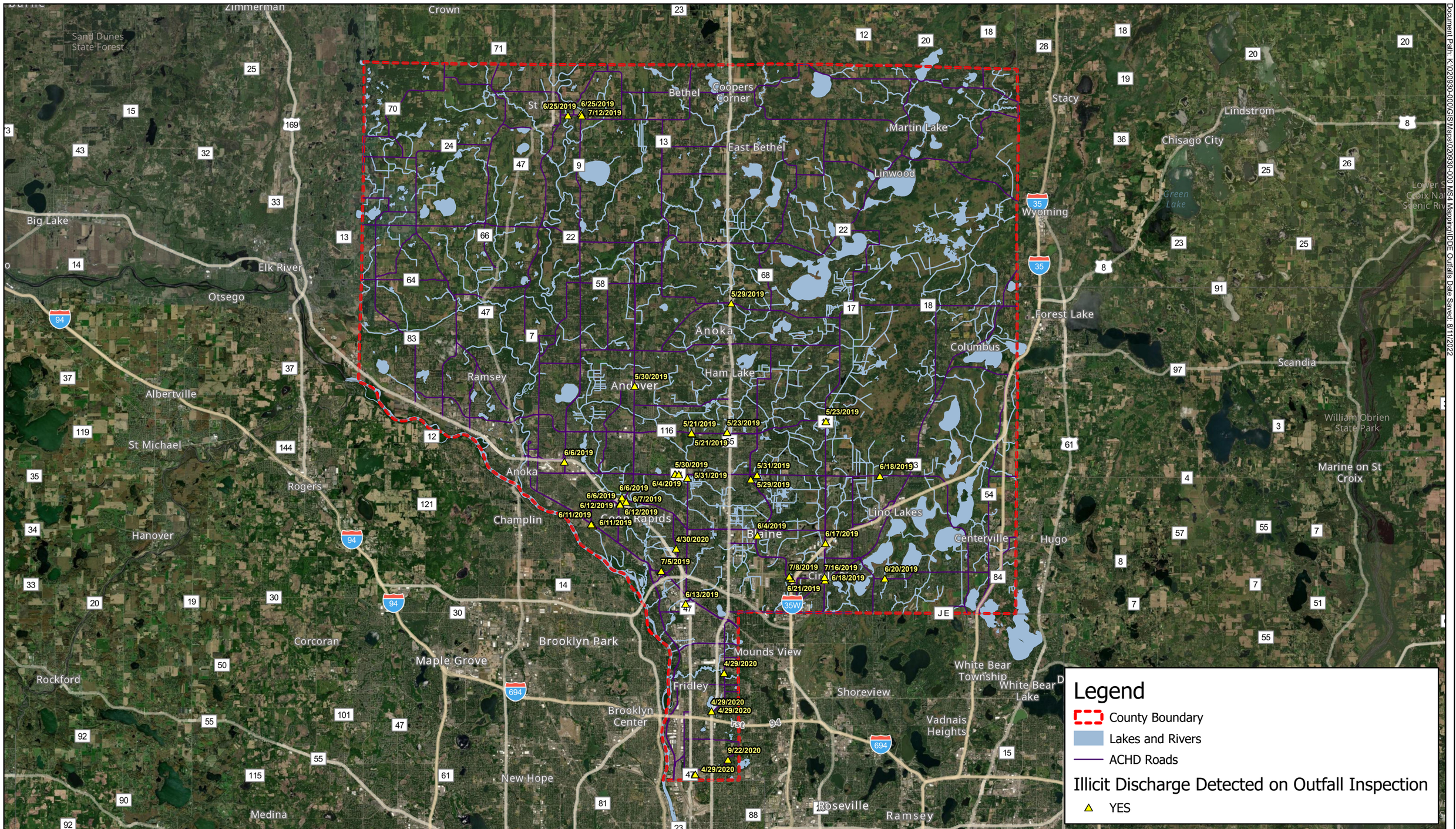
Anoka County MINNESOTA

N

0 3.25 Miles

1 inch = 3.25 miles

wsb



Legend

- County Boundary
- Lakes and Rivers
- ACHD Roads

Illicit Discharge Detected on Outfall Inspection

- YES

Illicit Discharge Detection and Elimination - MS4 Outfalls

Anoka County, MN
2020 MS4 General Permit Item 18.10
mapped data available at larger scale

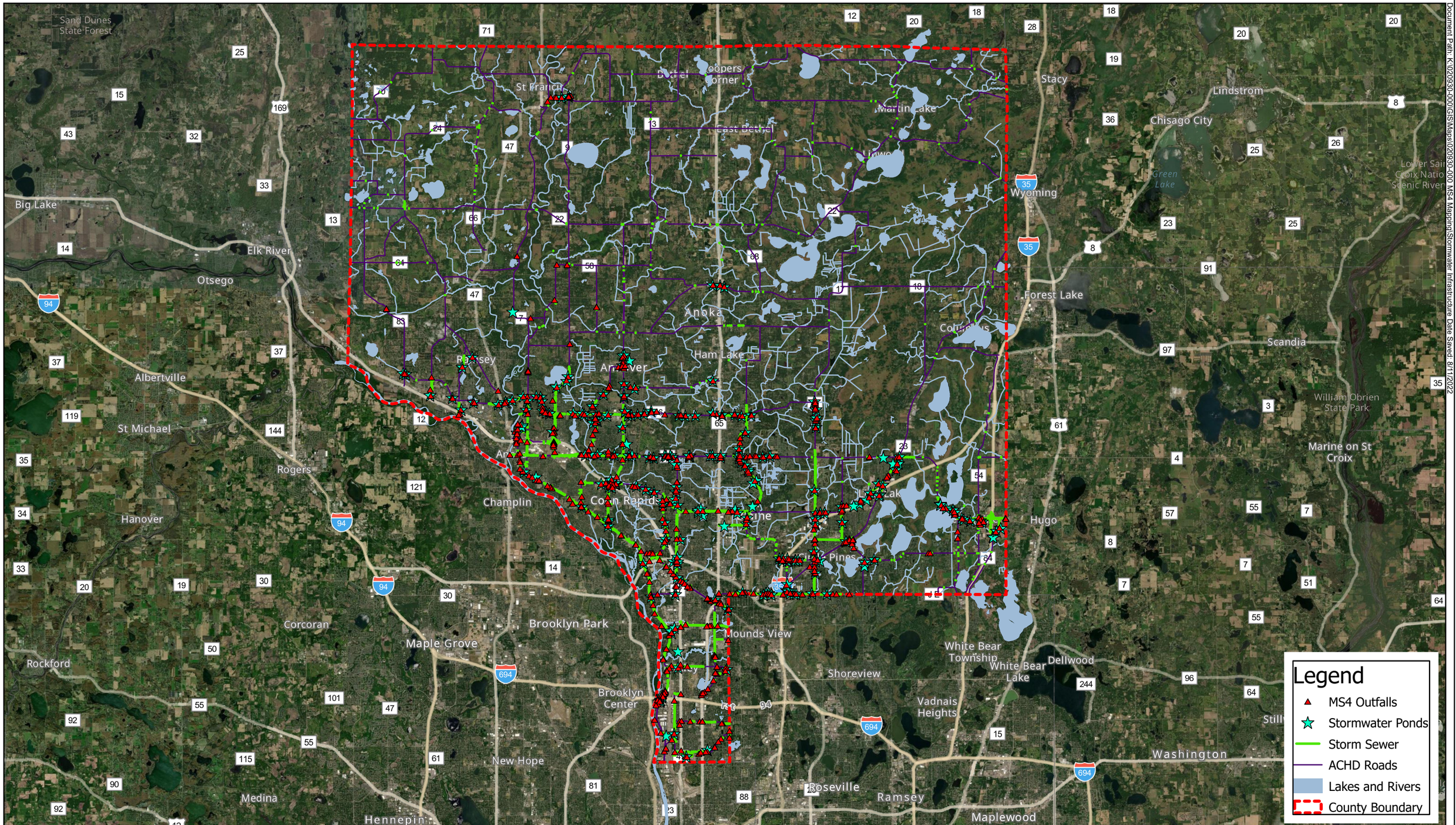
Anoka County MINNESOTA

N

0 3.25 Miles

1 inch = 3.25 miles

wsb



Anoka County
MINNESOTA

Stormwater Infrastructure

Anoka County, MN
2020 MS4 General Permit Item 14.2
mapped data available at a larger scale

N
0 3.25 Miles
1 inch = 3.25 miles

wsb

Anoka County
Outfall Inspection Form

General Information:

Outfall ID #_____	Inspected by:	Date: _____

Last Rain Date (if known):_____ Amount:_____ (inches)
Today's Rainfall Amount: _____ (inches)

Address/Nearby Landmark: _____

Weather Conditions: ☐ Clear Skies ☐ Overcast ☐ Other: _____

Photos taken? ☐ Yes ☐ No

Outfall Data:

Outfall Type:
- ☐ Manhole
- ☐ Flared End
- ☐ Swale
- ☐ Weir
- ☐ Flume
- ☐ Culvert
- ☐ Other

Outfall Condition:
- ☐ Clear/Functioning
- ☐ Needs Maintenance/Cleaning
- ☐ Needs Repair
- ☐ Needs Replacement

Immediate Action Needed? ☐ Yes ☐ No

Other Notes: _____-

Discharge Data:

Visible Flow? ☐ Yes ☐ No ☐ Submerged	Flow Depth: _____(approx. inches)	Significant erosion and/or sedimentation? ☐ Yes ☐ No

If flow is present, describe and check all that apply:
- ☐ Colored Water _____
- ☐ Odor _____
- ☐ Murky, Turbid _____
- ☐ Floating objects _____
- ☐ Scum _____
- ☐ Oily Sheen _____
- ☐ Sludge Present _____
- ☐ Clear _____
- ☐ Suds _____

Illicit Discharge Details:

- ☐ Follow-up Required Yes / No _____
- ☐ IDDE Source Identified Yes / No _____
- ☐ Responsible Party Name _____
- ☐ Potential Pollutants? Yes / No _____
- ☐ Enforcement Response Followed Yes / No _____
- ☐ ≥ 72 hours since last rainfall Yes / No
- ☐ Sample Collected? Yes / No
- ☐ Photos taken? Yes / No
- ☐ Corrective Action Required? Yes / No

Additional Information:

Comments / Corrective Action Conducted:

Anoka County – Illicit Discharge Detection and Elimination Inspection Form (MCM 3)

General Information:		
Inspector: _____	Date : ___ / ___ / ___	Time: AM PM
Weather:	Within Priority Area: ☐ Yes ☐ No	Photos taken? ☐ Yes ☐ No
Inspection Reason: ☐Regular Inspection ☐Complaint ☐Alleged illicit discharge	Inspection completed during dry weather condition (period of 72 or more hours of no precipitation): ☐ Yes ☐ No	

"Call-in" Reporting (*for call-in incidents only*)			
Call Taken By: _____	Date of Call: ___ / ___ / ___	Time of Call: _____ AM/PM	Contact Information for Caller *(optional):* _____

Incident Location *(Provide one or more below)*
Lat./Long.: _____ Closest Street Address/Landmark**:** _____

Detection and Tracking:	**Type of Discharge:**	
☐Visual inspection ☐Mobile camera ☐Sample Collected ☐Other effective investigation tool: _____	☐Illegal dumping ☐Sanitary sewer ☐Cross connection ☐Floor drain connection to storm sewer ☐Sanitary sewer overflow	☐Inflow / infiltration ☐Straight pipe sewer discharge ☐Failing septic system ☐Pump station failure ☐Other: _____

Description of Discharge:	
☐Flow present? ☐Estimated discharge _____ ☐Water Color _____ ☐Odor _____	☐Turbidity _____ ☐Floatables _____ ☐Sedimentation _____ ☐Oil Sheen _____

Reporting:	
Responsible Party: _____ (if identified)	Follow-up Required? ☐Yes ☐ No
MN State Duty Officer Notified? ☐ Yes ☐ No (1-800-422-0798) Duty Officer Report # _____	Name of Staff to conduct Follow-up: _____
Corrective Actions:	

TABLE OF CONTENTS

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APPENDICES

ACRONYMS

BMP	Best Management Practice
CGP	Construction General Permit
ECC	Erosion Control Coordinator
ERP	Enforcement Response Plan
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
ROW	Right-of-Way
SWPPP	Stormwater Pollution Prevention Plan
USEPA	United States Environmental Protection Agency

ENFORCEMENT RESPONSE PROCEDURES

1 INTRODUCTION AND BACKGROUND

This Stormwater Enforcement Response Plan (ERP) codifies enforcement procedures used by Anoka County (County) to enforce provisions of its National Pollutant Discharge Elimination System (NPDES) Statewide Stormwater Permit No. MS400066 (hereafter referred to as the MS4 Permit). Under the MS4 permit, the County is to control the release of pollutants to and discharges from the municipal separate storm sewer system (MS4) which is owned or operated by the County through rules and regulations regulating stormwater discharges.

- Control the contribution of pollutants to the MS4 by stormwater and non-stormwater discharges associated with industrial activity and the quality of stormwater discharged from sites of industrial activity.

- Prohibit illicit discharges to the MS4.

- Control the discharge to the MS4 from spills, dumping, or disposal of materials other than stormwater.

- Require compliance with conditions in State statutes, rules, permits, contracts, and orders.

- Carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and non-compliance with permit conditions including the prohibition on illicit discharges to the MS4.

The County's MS4 consists of a conveyance or system of conveyances owned by the County that is designed or used for collecting or conveying stormwater, which is not a combined sewer, and which is not part of a publicly owned treatment works.

1.1 Purpose

This ERP describes the measures available to the County to exercise its authority. The ERP identifies enforcement procedures designed to encourage a timely response by the discharger. Implementation of the ERP will ensure a consistent response throughout the County and avoid confusion, delays, and disputes over enforcement for stormwater pollution prevention.

An effective enforcement program depends on detailed and comprehensive documentation of all contacts with the alleged violator and of all evidence establishing the violation. Investigations and enforcement actions must be handled quickly. The County is required by the Permit to investigate reports of illicit discharges and initiate enforcement action to eliminate the source(s) of the discharge.

1.2 Anoka County’s Permit History

The County's current MS4 permit is issued by the State of Minnesota’s Pollution Control Agency (MPCA). The scope of the permit includes all stormwater discharges

associated with construction sites, industrial facilities, maintenance facilities, and other activities within the MS4's jurisdiction.

1.3 Types of Enforcement Actions

The County will use County Ordinance, permits, and penalties to enforce illicit discharges to the County's MS4 system. The County anticipates two general types of stormwater violations: construction sites and illicit discharges or connections to the County's MS4. Potential violators include construction contractors, businesses, industries, private citizens, and other governmental agencies which are detailed below.

1.3.1 Construction Sites

The County's construction contractors are required to obtain all required permits pertaining to land disturbance activities from various agencies. Permits could include watershed, DNR, City, or State permits.

To that end, the County has inspection oversight responsibility, and must ensure that a trained employee inspects construction activity at sites until final stabilization is achieved. The MS4 permit requires the County to implement a system to monitor contracted construction activities and to enforce Permit provisions. The County is required to list and describe all violations and enforcement responses taken for construction activities in the Annual Report submitted to MPCA.

The County's authority to take enforcement action at construction sites is derived from its County code along with permit language.

1.3.2 Illicit Discharges and Connections

The Permit also requires Anoka County to take measures to detect and eliminate illicit discharges and connections to the County's MS4. An illicit discharge is defined as any discharge to a MS4 that is not composed entirely of stormwater, with the exception of allowable non-stormwater discharges and separately permitted discharges. Illicit connections are defined as any man-made conveyance that connects an illicit discharge directly to the MS4. The County is required to implement a program to minimize, detect, investigate, and eliminate illicit discharges and connections, including unauthorized non-stormwater discharges and spills, into the MS4 system.

2 METHODS OF DISCOVERY OF NON-COMPLIANCE

Reports of a stormwater violation or non-compliance may come from one of several sources:

- Reports from County Staff – Illicit discharges and discharges of sediment or other pollutants from the construction sites, facilities, or other sources within the County's MS4 may be observed by County staff as they conduct normal activities such as driving to or from job sites or when inspecting other activities. Such non-compliances could include water and wind erosion, sediment tracking onto local streets, poor housekeeping, location of concrete washouts, and failed or ineffective best management practices (BMPs).

- Permit Compliance Activities – Non-compliances may be discovered through Permit-required inspections or monitoring, including construction site inspections.

- Contractor Compliance Activities – A construction contractor's failure to comply with the State's Construction General Permit requirements such as conducting and submitting inspection reports, obtaining annual certifications, preparing, and implementing Stormwater Pollution Prevention Plans (SWPPPs).

- Reports from the Public – Public complaints may come directly to County or through other local, state, or federal government agencies.

3 CONSTRUCTION AND POST-CONSTRUCTION CONTRACTOR ENFORCEMENT

This section imposes the obligation the Contractor to perform their duties in an honest, diligent, and cooperative manner.

The following section describes the County's authority and the mechanisms for enforcing Permit provisions on construction sites within the boundaries of the County's MS4 jurisdiction.

3.1 Contractor Compliance Requirements

Compliance with stormwater permits and laws on construction projects within the County's MS4 must be enforced according to these Enforcement Response Procedures.

- Contractors are to comply with the State's NPDES CGP, City, and Watershed permits for regulated construction projects, including the contractor's obligation to file a NOI and obtain authorization under the State CGP for each construction project or site. The contractor shall also file a NOT for each construction project or site, either terminating their responsibility if final stabilization has been achieved or transferring it to another contractor for completion.

3.2 Construction Contract Enforcement

When stormwater non-compliance is identified by the construction observer, County employee, or resident engineer, enforcement actions will be taken promptly but no later than 30 days following identification of the non-compliance. The County will take appropriate sanctions against the contractor based on the nature and severity of the situation. Non-compliances will be classified as minor or major violation. Major violations are generally those acts or omissions that lead to a discharge of pollutants to stormwater. Minor violations are generally instances of non-compliance that do not directly result in such a discharge. Serious discharges or an imminent threat of discharge on a project may require an immediate escalation to a higher level of enforcement. The level of enforcement response will depend upon several factors:

- Severity of the violation: the duration, quality, and quantity of pollutants, and effect on public safety and the environment
- The violator's knowledge (either negligent or intentional) of the regulations being violated
- A history of violations and /or enforcement actions individual or contractor
- The potential deterrent value of the enforcement action

The County will use the following progressive enforcement policy, escalating the response when a contractor fails to respond in a timely manner. If the County identifies a deficiency in the implementation of the approved SWPPP or amendments and the deficiency is not corrected immediately or by a date requested by the County. the project is in non-compliance. The recommended sequence of enforcement actions is detailed below.

3.2.1 Verbal Warning

This action is a verbal exchange between an inspector or the resident engineer and the alleged violator. The information exchanged will be documented by the inspector. Typically, no letter is written if the problem is corrected immediately, and the inspector or resident engineer observes the corrective action and deems it appropriate.

3.2.2 Written Warning

A warning letter may be issued if the non-compliance continues for 30 days after the verbal warning is issued, if the non-compliance cannot be corrected while the inspector or resident engineer is on site, or if the non-compliance is a significant violation. The warning letter will document the reasons why the discharge is illegal and provide deadline for compliance.

Typically, compliance is required within 30 days to avoid additional enforcement actions; however, if the situation warrants, shorter or longer deadlines maybe permissible. A sample letter to violators is provided in Appendix A.

3.2.3 Revocation of Permits

If the restoration letter does not result in corrective action by the documented deadline, the County may revoke the permit(s) issued for the project.

3.2.3.1 Substantial Breach

The County may revoke any Right of Way Permit, without a fee refund, if there is a substantial breach of the terms and conditions of any statute, ordinance, rule or regulation, or any material condition of the permit including a threat to the safety of workers, or the right of way user or the utility users.

3.2.3.2 Written Notice of Breach

If the County determines that the permittee has committed a substantial breach of a term or condition of any statute, ordinance, rule regulation or any condition of the permit, the County will make a written demand upon the permittee to remedy the violation. Continued violations will cause for revocation of the permit.

Within 24 hours of receiving the Notice of Breach, the permittee must provide the

County with a plan, acceptable to the County that will remedy the breach. If the permittee fails to respond to the County, or the permittee's plan is inacceptable, or the permittee fails to reasonably implement the approved plan, the County may revoke the permit and/or place the permittee on probation for one full year. A sample Notice of Breach is provided in Appendix A.

3.2.3.3 Automatic Revocation

If a permittee, while on probation, commits a breach, the permittee's permit will automatically be revoked and the permittee will not be allowed further permits for one full year, except for emergency repairs.

4 ILLICIT DISCHARGES AND CONNECTION ENFORCEMENT

The County is responsible for monitoring discharges to its MS4. The Permit requires the County to ensure that discharges from its MS4 do not cause or contribute to an exceedance of water quality standards. In addition, neighboring property owners are not allowed to occupy, use, or interfere with public ROW without permission. Any discharge/connection without permission is an illegal encroachment on the County's MS4. A discharge/connection can be discovered in two ways, either through routine inspection or due to a complaint.

Similarly, to the process in **Section 3**, notification of observed illicit connections or discharges will be carried forward to the alleged connector/discharger by the inspector or observer. The County will use the following progressive contract enforcement policy, escalating the response when a discharger fails to respond in a timely manner.

4.1 Verbal Warning

When a routine inspection of the drainage system identifies an illegal connection/discharge to the County's MS4 system, the inspector will document the discharge on an Illicit Discharge Detection and Elimination (IDDE) inspection form, which will be provided to Maintenance Supervisor within 48 hours.

If the source of the connection is evident, the observer/inspector will contact the connector/discharger directly by phone or in person to discuss elimination. The communication will include requesting any permits or other authorizations and providing a follow update (within 15 days). If the discharge is permitted or authorized (documentation is required), no further action is required; if the discharge is not authorized, it will need to be addressed or ceased within 15 days.

4.2 Written Warning

If after 15 days the illicit connection/discharge has not been corrected, the Maintenance Supervisor will issue a "Notice of Illegal Discharge and Demand for Corrective Action" letter to the property owner (example letter in Appendix B). The letter will request that the connection/discharge be ceased or removed within 30 days. A follow up inspection will be performed by the Maintenance Supervisor ensure compliance. If the connection/discharge has not been corrected, the incident will be referred internally to the County Engineer for further review.

4.3 Removal of Connection/Discharge

The County may remove the illegal connection/discharge if it has not been corrected within the initial 60 days of observation timeframe. If the County removes the illegal connection/discharge, the responsible party is subject to civil action for damages.

4.4 Civil Action

If the illegal connection/discharge is not corrected within 60 days of observation, the County Attorney may forward the matter to local enforcement authority. Additional measures will be escalated as needed to achieve compliance.

4.4.1 Minnesota Pollution Control Agency

Authority to administer the state MS4 permit in Minnesota rests with the MPCA. The MPCA has several enforcement mechanisms for violations of NPDES rules, including fines. In compliance with the provisions of the federal Clean Water Act (CWA), as amended, (33 U.S.C. 1251 et seq); 40 CFR Parts 122, 123, and 124, as amended; Minnesota Statutes Chapters 115 and 116, as amended; and Minnesota Rules Chapter 7001 and 7090.

4.4.2 United States Environmental Protection Agency

Although the USEPA delegated authority for the NPDES Program to the state of Minnesota, the USEPA reserves the authority to apply fines in addition to fines issued by the MPCA. Federal environmental regulations based on the Clean Water Act allow the USEPA to levy fines on dischargers of up to $27,500 per day per violation.

5 EMERGENCY RESPONSE CONDITIONS

The County's MS4 Permit identifies "discharges from emergency situations where federal rules specify washing as the preferred method to assure public safety" as an authorized non-stormwater discharge. Such discharges will not be subject to enforcement action.

6 REPORTING REQUIREMENTS

The County shall provide a list and description of all violations and their resolutions, including any enforcement actions taken against contractors, corporations, or other entity in the Annual Report to MPCA. At a minimum, the inspector should document the source of the complaint, the date, the time, the contact person (if any), a description of the nature of the non-compliance or illicit discharge, actions taken, and final resolution.

At a minimum, the County shall document the following for each MCM:

1. name of the person responsible for violating the terms and conditions of the permittee's regulatory mechanism(s).
2. date(s) and location(s) of the observed violation(s).
3. description of the violation(s).
4. corrective action(s) (including completion schedule) issued by the permittee.
5. referrals to other regulatory organizations (if any).
6. date(s) violation(s) resolved.

Anoka County
TRANSPORTATION DIVISION
Highway

Joe MacPhearson, PE
County Engineer

DATE _____

SAMPLE

Permit Holder Name
Address 1
Address 2
City, State, Zip

SENT VIA E-MAIL
& USPS

RE: Anoka County Permit No. _____
Location of Work

Dear_____:

Regarding the above-referenced permit, ACHD is very concerned with the manner that the work in this quadrant was completed. It has caused significant damage even though all facilities were properly located as per GSOC. The damaged handhole ring shall be replaced **immediately**. **(Insert Permit Holder Name) will have until 3:00 pm, Thursday, April 3, 2025 to complete this repair.**

In regards to the electrical box/pad, (Insert Permit Holder Name) shall provide proof that they have contacted electrical utility regarding this damage and a restoration plan is in effect and approved by the electrical company. **This proof shall be submitted to ACHD by 3:00 pm, Thursday, April 3, 2025.**

Consequently, (Insert Permit Holder Name) has 72 hours to submit their action plan for restoration/repair of the entire work area. This action plan shall include precise details of all restoration/repairs.

In addition, this letter is to serve as Anoka County Highway Department's (ACHD) official notice to (Insert Permit Holder Name) that all current permits and all future permits are on hold, effective immediately until all issues with Permit _____ are determined. All costs related to the full restoration/repair and any costs incurred as a result of the existing damage, shall be the responsibility of (Insert Permit Holder Name).

Sincerely,

XXXXXXXX
Traffic Tech I

Attach photos, documentation, etc.

NOTICE OF ILLEGAL DISCHARGE OR CONNECTION

Person or Business Name
Address
City, MN

Dear Property Owner:

Anoka County is responsible for maintaining the storm sewer system. The Minnesota Pollution Control Agency (MPCA) Municipal Separate Storm Sewer System General Permit requires the County to control the amount of pollutants entering the drainage system. Part of this charge is the detection and elimination of illegal discharges or connections to the system that may contain pollutants or are otherwise not allowed. Left uncorrected, any pollutants entering the system will ultimately impact nearby streams, as storm drainage is not treated at any sort of treatment facility. Any discharge/connection without permission is illegal and requires immediate termination of the discharge.

An inspection of the drainage system has occurred in the vicinity of your property and an illegal connection/discharge was discovered entering into the County system. The discharge/connection was discovered on <insert date> at <insert business name and address>.

Indicators or Source include piping and staining.

Photographs of this discharge/connection are enclosed with this letter. In addition, I have enclosed an aerial photograph showing the location of this discharge/connection.

This discharge or connection must be ceased or removed within 30 days. A follow-up investigation will be conducted after that time to ensure compliance. If the situation is not corrected, the County will take corrective measures, including but not limited to referring this matter to the MPCA so that enforcement action can be taken, which may include the issuance of a fine. In the alternative, the County may remove the discharge/connection and bill you directly pursuant County Code. If the illegal discharge/connection cannot be removed within 30 days, you do not understand this notice, or you disagree that an illegal discharge/connection exists at your property, please contact me with further details or explanation by calling (763) 324-3137 or by email at Jim.Plemon@co.anoka.mn.us.

Sincerely,

Jim Plemon
Maintenance Superintendent
1440 Bunker Lane Blvd NW
Andover, MN 55304

Enclosure (photographs)

Cc:

Anoka County
Spill Response Plan

Emergency Contact Information

Onsite Emergency Contact(s)	Jim Christenson – Primary (612) 670-3059	
	Anoka County Environmental Services – Secondary (763) 422-7063	
Emergency Response Contact(s)	Fire/Paramedics/Police:	911
	MN Duty Officer:	(651) 649-5451
	MN Department of Health:	(651) 201-5414
	National Response Center:	(800) 424-8802

Spill Response Plan

Step 1: Approach the Scene

- Use safety first in responding to spills. Do not endanger yourself or others by entering a hazardous environment. If there is a fire or medical attention is needed, call 911 immediately.
- Avoid exposure. Approach the spill from upwind and stay clear of spills, vapors, fumes and smoke.

Step 2: Secure the Scene

- Isolate the spill.
- Keep people away from the scene; divert traffic and pedestrians as needed.
- If possible, stop the source of the spill.
- Eliminate any ignition sources.

Step 3: Identify the Hazards

- Attempt to identify the spilled material.
    - Characteristics (odor, color, sheen), labels/markings, container type, activities in the area, hazard warnings, etc.

Step 4: Assess the Situation

- Determine the appropriate first response actions and if additional response help is needed
- The response will be dictated by the size of the spill and the hazard:
    - Is there a fire, a spill, or a leak?
    - Is there a potential for it to mix with something else?
- Observe your surroundings:
    - Who/what is at risk?

    - Is an evacuation necessary?
    - What resources are required and readily available to contain the spill?

Step 5: Report the Spill

- Report spills that may cause pollution, such as toxic, flammable, corrosive and dangerous industrial chemical spills.
    - Minnesota has a reporting threshold of greater than five-gallons for petroleum spills. Spills of any quantity of all other chemicals or materials should be reported. When in doubt, report.
- Contact the Minnesota Department of Public Safety Duty Officer at 1-800-422-0798 (toll free) or 651-649-5451 (Metro area), if the spill of any substance or material may cause or has caused pollution of waters of the state.

Step 6: Contain the Spill

- Always wear the appropriate personal protective equipment, such as gloves, boots, and safety glasses. Know the limitations of the personal protective equipment.
- Place booms or available materials around the perimeter of the spill to keep it from spreading.
    - If the spill is a threat to any storm water conveyance, like street gutter, storm drain or inlet, swale, ditch, storm, or river, place absorbent between the spill and storm device.
- Apply absorbent materials starting from the downhill and outside edge of the spill.

Step 7: Clean Up the Spill

- If you have the proper training, small spills may be cleaned up according to the chemical label and your training.
    - Do not wash or hose down the spill into the street, ditch or storm drain.
    - If flammable liquid is spilled, ventilate the area and eliminate any possible sources of ignition.
    - Clean up the spills, leaks and drips quickly. Use “dry” clean-up methods, such as sweeping or shoveling. If the spill can be moved by wind, cover the material with sheeting to prevent spreading.
    - Place all clean-up waste in appropriate containers. If hazardous, insure that material is placed in a hazardous waste container.
    - Dispose of spill material in compliance with all Federal, State and Local regulations.
- If you do not have proper training, or the spill is a large spill, leave the area and notify Emergency Responders (911). Give the operator the spill location, chemical spilled and approximate amount.

Step 8: Complete Spill Documentation and Follow-up

- Clean and decontaminate all reusable spill cleanup equipment.
- Be sure to restock your spill response materials and personal protection equipment as soon as possible.
- Update facility spill records.

Illicit Discharges: How You Can Help

Yu nWhat is an "Illicit Discharge"?

An illicit discharge is the illegal act of disposing, dumping, spilling, emitting, or other discharge of any substance other than stormwater into the streets, ditches and ponds that make up the County's storm sewer system, or directly into streams or lakes themselves. Illicit discharges are harmful to our local lakes and wetlands, because they often contain heavy metals, toxics, oil and grease, solvents, nutrients and/or viruses and bacteria.

Report all illicit discharges to the Assistant County Engineer at: 763-324-3199

Examples of Common Illicit Discharges

Uncontained Spills

Leaking Compactors

Illegal Sanitary Connection to Storm Sewer System

Illegal Disposal of Construction Waste

Grass Clippings

Carpet Cleaning Waste

Illicit Discharges: How You Can Help

I acknowledge that I have reviewed and understand the Illicit Discharges factsheet. I will report all potential illicit discharges to the Assistant County Engineer at 763-324-3199.

Signature: _____

Name: _____

Department: _____

Date: _____

Illicit Discharges: How You Can Help

Minimum Control Measure 4
Construction Site Erosion and Sediment Control

TABLE OF CONTENTS

APPENDICES

1. INTRODUCTION

1.1. Basis for the Standard Operating Procedures (SOPs)

The Minnesota Pollution Control Agency reissues their National Pollutant Discharge Elimination System (NPDES) General Permit (GP) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). The MS4 GP requires Anoka County to develop written procedures for the purpose of eliminating pollutants associated with construction activity and due to new development and redevelopment on projects with land disturbance of greater than or equal to once acre, including projects that are less than one acre that are part of a common plan of development or sale.

This manual assist Anoka County in meeting the Stormwater Phase II regulations, by incorporating guidance on the following:

- Plan Review
- Training
- Inspections

The Guidelines and Standard Operating Procedures Manual will help promote behavior to improve the water quality of Anoka County's lakes, ponds, and creeks.

1.2. Objectives of the SOPs

This manual is intended to provide guidance on Construction Site Erosion and Sediment Control:

- Provide guidance regarding plan review procedures.
- Provide guidance to communities for prioritizing where construction site inspections may need to occur on a more frequent basis.
- Provide guidance to County staff on what to look for during construction inspections.
- Provide guidance on how to enforce non-compliant construction sites.
- Provide guidance to County staff on proper procedures for BMP operation and maintenance.

2. PLAN REVIEW AND APPROVAL PROCESS

2.1. Plan Review

Activities and Definition

Plans that are submitted to Anoka County for approval will have a review process to guarantee that erosion and sediment control standards.

Maintain the following regulatory mechanism that prohibits non-stormwater discharges into Anoka County's MS4, establishes erosion, sediment, and waste controls as stringent as the Construction Stormwater Permit requirements for construction sites:

- Policies
- Written policies

Preparation

a. When the CSW Permit is reissued, the County shall revise their regulatory mechanism(s), if necessary, within 12 months of the issuance date of that permit, to be at least as stringent as the requirements for erosion, sediment, and waste controls described in the CSW Permit.
b. Review County policies (Policy #2000-2), the MPCA Construction General Permit.
c. Reviews of submitted plans, will utilize a checklist to ensure accuracy (Appendix A).

Process

The County's regulatory mechanism(s) shall require that owners and operators of construction activity develop site plans that must be submitted to the County for review and confirmation that regulatory mechanism(s) requirements have been met, prior to the start of construction activity. The regulatory mechanism(s) shall require the owners and operators of construction activity to keep site plans up to date regarding stormwater runoff controls. The regulatory mechanism(s) must require that site plans incorporate the following erosion, sediment, and waste controls that are at least as stringent as described in the CSW Permit:

a. erosion prevention practices.
b. sediment control practices.
c. dewatering and basin draining.
d. inspection and maintenance.
e. pollution prevention management measures.
f. temporary sediment basins.
g. termination conditions.

The following additional processes shall be done:

a. The County engineering and planning staff will review plans.
b. The County shall distribute written notifications to owners and operators of the need to apply for and obtain coverage under the CSW Permit.
c. The County shall use of a written checklist, consistent with the requirements of the regulatory mechanism(s), to document the adequacy of each site plan required
d. A checklist will be used to ensure accuracy of submitted plans.
e. The County will be responsible for enforcement of their stormwater rules.

Follow-up

When comments are submitted by the applicant, the review committee will follow up in 7-10 business days to ensure all comments were addressed by applicant. Anoka County has 60 days to make a final decision on a development or redevelopment review.

Documentation

a. Document each plan review completed within the County's SWPPP tracking Excel table to help expedite the annual reporting process:
    1. Project name
    2. Location
    3. Total acreage to be disturbed
    4. Owner and operator of the proposed construction activity
    5. Proof of notification to obtain coverage under the CSW Permit
    6. Any stormwater related comments and supporting completed checklist, used by the County to determine project approval or denial
b. Keep logs of number of plan reviews per calendar year (Appendix B).
c. Copies of plans, BMP quantities, and proposed BMPs will be provided to inspector or inspecting consultant.

2.2. Training

Activities and Definition

Training of Anoka County staff will be important so that they are aware of the importance of good erosion and sediment control practices. This includes knowledge in installation and inspection techniques as well as record keeping and maintenance activities. It is important for County staff to be able to recognize deficiencies in BMPs on construction sites. Inspection staff will be responsible for the tracking and enforcing permit requirements.

The employee training provided by Anoka County will include stormwater 101 training sessions, training received through the University of Minnesota's erosion and sediment control, and a hands-on process to discuss the activities that are occurring in the field and how those activities can impact the County's MS4 program. Including employees into the

planning process will help them understand that they are part of the solution to improve water quality.

The County shall ensure that individuals receive training commensurate with their responsibilities as they relate to the County's Construction Site Stormwater Runoff Control program. Individuals includes, but is not limited to, individuals responsible for conducting site plan reviews, site inspections, and/or enforcement. The County shall ensure that previously trained individuals attend a refresher-training every three (3) calendar years following the initial training.

Documentation

Anoka County shall document the following training initiatives:
a. General subject matter covered
b. Name(s) and departments of individuals in attendance
c. Date of each event

2.3. Inspections

Activities and Definition

Construction site inspections will determine compliance with Anoka County's regulatory mechanism(s).

Preparation

a. Anoka County shall identify the Assistant County Engineer as the person(s) responsible for conducting site inspections.
b. Identify priority sites for inspection based on topography, soil characteristics, type of receiving water, stage of construction, compliance history, weather conditions, or other local characteristics and issues.
c. Ensure staff has proper training pertaining to Erosion and Sediment Control techniques.

Process

a. Identify sites that require and erosion and sediment control inspection.
b. Perform inspection using the erosion control inspection checklist (Appendix C).
c. Document construction activities and follow up with site owner/County about findings from inspection. Prior to leaving the site talk to the responsible person to ensure corrections can be made in a timely fashion, if feasible.
d. Perform a follow up inspection of site if deficiencies are found during initial inspection. Ensure that correction items have been completed.
e. The County shall conduct inspections of high-priority sites once every seven (7) days.

f. Failure to comply with the permit requirements may require initiating enforcement action as described in the County's Enforcement Response Procedures (ERPs) as follows:
    1) Verbal Warning
    2) Notice of Violation (Restoration Letter)

Documentation

Anoka County shall maintain written procedures for identifying high-priority and low-priority sites for inspection. At a minimum, the written procedures shall include:

a. Detailed explanation describing how sites will be categorized as either high-priority or low-priority.
b. A frequency at which the County will conduct inspections for high-priority sites.
c. A frequency at which the County will conduct inspections for low-priority sites.
d. The name(s) of individual(s) or position title(s) responsible for conducting site inspections.

Anoka County staff shall record the following items in the County's SWPPP tracking system to document each site inspection when determining compliance with the County's regulatory mechanism(s):

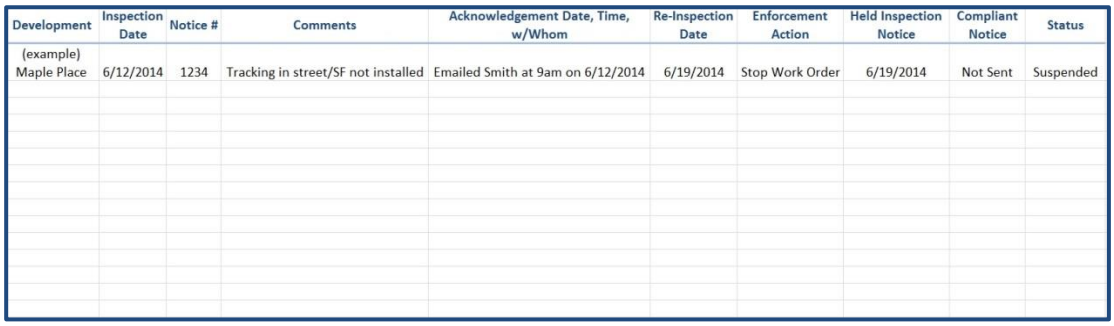
a. Whether stabilization of exposed soils (including stockpiles) was done.
b. Whether stabilization of ditch and swale bottoms was done.
c. Whether storm drains have inlet protection.
d. Whether energy dissipation at pipe outlets was done.
e. Vehicle tracking BMPs.
f. Whether the preservation of a 50-foot natural buffer or redundant sediment controls where stormwater flows to a surface water within 50 feet of disturbed soils was done.
g. Owner/operator of construction activity self-inspection records.
h. Containment for all liquid and solid wastes generated by washout operations (e.g., concrete, stucco, paint, form release oils, curing compounds, and other construction materials).
i. BMPs maintained and functional.

County staff will record the following items in an inspection log to track the status of erosion and sediment control violations, enforcement actions and follow-up (Figure 1):

a. Keep logs of number of inspections.
b. Keep records of inspection reports and reports sent.
c. Keep records of escalation of penalties (Appendix D).
    1. Name of the person responsible for violating the terms and conditions of the County's regulatory mechanism(s)
    2. Date(s) and location(s) of the observed violation(s)
    3. Description of the violation(s)

4. Corrective action(s) (including completion schedule) that the County issued
5. Referrals to other regulatory organizations (if any)
6. Date(s) violation(s) resolved

Figure 1. ESC Inspection Log



Development	Inspection Date	Notice #	Comments	Acknowledgement Date, Time, w/Whom	Re-Inspection Date	Enforcement Action	Held Inspection Notice	Compliant Notice	Status
(example) Maple Place	6/12/2014	1234	Tracking in street/SF not installed	Emailed Smith at 9am on 6/12/2014	6/19/2014	Stop Work Order	6/19/2014	Not Sent	Suspended

Noncompliance

Anoka County shall maintain written procedures for receipt and consideration of reports of noncompliance or other stormwater related information on construction activity submitted by the public.

The County shall implement and enforce a regulatory mechanism(s) that establishes requirements for erosion, sediment, and waste controls that is at least as stringent as the Agency's most current Construction Stormwater General Permit (MNR100001).

Failure to comply with the permit requirements may require initiating enforcement action as described in Anoka County's Enforcement Response Plan as follows:

1. Verbal Warnings
2. Notice of Violations
3. Stop Work Orders
4. Fines
5. Revocation of Permits which includes as followed:
    a. Substantial Breach
    b. Written Notice of Breach
    c. Automatic Revocation

2.4. County Projects Erosion and Sediment Control BMPs

Activities and Definition

Anoka County projects that will disturb any amount of soil will use proper erosion and sediment control BMPs.

Preparation

a. Provide BMPs for County projects including inlet protection, perimeter control, temporary and permanent stabilization methods.
b. Ensure staff has University of Minnesota's erosion and sediment control certification and/or have been trained by a certified staff person on proper erosion and sediment control techniques.

Process

a. Construction projects that have the potential to impact the MS4 system or any natural resource will have BMPs installed prior to construction activity.
b. All perimeter control BMPs are required to be fixed, substituted, or enhanced if they are no longer working or sediment fills one-half (1/2) of the height of the BMP. This must be done by the end of the next business day or as soon as site conditions permit.
c. Temporary or permanent sediment basins are required to be drawn down and have sediment removed when the depth of the captured sediment reaches one-half (1/2) the storage volume of the basin.
d. Tracked sediment from the construction site entrance/exit is required to be removed from all paved surfaces both on and off site. This must be done as soon as possible or within 24 hours of being found.
e. Install down gradient perimeter control where needed on the site.
f. Block adjacent inlets and outlets, if necessary to prevent sediment and debris from discharging into the storm sewer.
g. Stabilize all exposed soil areas upon completion of work. If work is not complete, temporary stabilization methods will be used.
h. After work is complete, clean out any sediment that might have entered the MS4 system.
i. Encourage use of structural and non-structural BMPs, structural or hard engineering techniques and bioengineering.
j. Require wet and dry stormwater detention ponds when surfacing drainage discharge into receiving waters.

Documentation

a. Keep logs showing the BMPs were inspected and properly maintained during the active construction period until the period where final stabilization has been achieved.
b. Sites should be inspected weekly or after a rainfall event greater than 0.5 inches in 24 hours where the soil disturbance is 1 acre or greater.
c. Document maintenance performed on:
    i. Perimeter Control
    ii. Inlet Protection
    iii. Erosion Control BMPs
    iv. Stabilization Performed

v. Sediment Control BMPs

d. If applicable, record the amount of waste collected, the number of catch basins cleaned, and the area they were cleaned in. Keep any notes or comments of any problems.
e. If applicable, document the final location of where the material was disposed, and any paperwork received from the disposal location.

2.5. Private Projects

Activities and Definition

Private projects that require a Right-of-Way or a Driveway Access permit will use proper erosion and sediment control BMPs.

Process

All private projects are the responsibility of the corresponding County in which the project is implemented. The owner or operator is required to adhere to the policies established by Anoka County in which the project is installed and the state NPDES permit.

Any private projects that are installed outside of Anoka County's permits for Right-of-Way or driveways will be inspected by a qualified employee from corresponding County's in which the project is installed. Inspections will occur at a frequency that is commensurate of the activities taking place. The field inspector will use their designated inspection form to conduct the inspection.

Documentation

a. Keep records of inspections performed.
b. Keep records of escalation of penalties.
    1. Verbal Warnings
    2. Notice of Violation (Restoration Letter)

Anoka County shall conduct an annual assessment of the Construction Site Stormwater Runoff Control program to evaluate program compliance, the status of achieving the measurable requirements (activities that must be documented or tracked as applicable to the MCM (e.g., inventory, trainings, site plan reviews, inspections, enforcement, etc.)) in Section 19 of the MS4 General Permit and determine how the program might be improved. The County shall perform the annual assessment prior to completion of each annual report and document any modifications made to the program because of the annual assessment.

ANOKA COUNTY HIGHWAY DEPARTMENT

Design Requirements Checklist for County Highway Modifications

(To be submitted with plans and specifications)

Development/Project Name: _____

County Highway No.(s): _____

Submittal Date: _____

All design shall meet State Aid Standards and the following: Revised: December 10, 2003

Design Detail *(Items highlighted should be shown in plans or specs)*	Desired Standard	Minimum Standard	Standard Achieved (Yes* or No** or NA)	Notes * - if Yes, circle, highlight or note standard ** - if No provide value used with justification (additional documentation if necessary)
GENERAL				
Design Year	20-yr traffic	Existing Traffic		
Design Vehicle	WB-62	WB-50		
Design Speed	Posted	Posted		
VERTICAL ALIGNMENT				
Highway Grade		0.50%		
Street Approach Grade	0.5% - 25' Landing	2% - 20' Landing		
Entrance Grades:				
Residential	<10%	15% Max		
Commercial	<6%	8% Max		
INTERSECTION ELEMENTS				
Street Approach Radius	Design Vehicle	30'		
Traffic Signal	Contact ACHD Traffic Department; If Applicable			
Crosswalk	If signal	If signal		
Stop Bar	If signal	If signal		
ADA Ramp	All sidewalk/trail crossings	All sidewalk/trail crossings		
Sight Distance	MnDOT Road Design Manual Chapter 5	MnDOT Road Design Manual Chapter 5		
CROSS SECTION ELEMENTS				
Typical Section	Show widths, slopes, depths, materials, curb etc.	Show widths, slopes, depths, materials, curb etc.		
Cross Sections	50' Intervals. Show ditches	100' Intervals. Show ditches		
Section depth and materials:				
Through Lane	Using R value and 20-yr ESALs	1.5" Wear (MVWE35035C), 1.5" Binder (MVNW35035C), 2" Base (LVNW35030B), 6" Cl 5		
Left Turn Lane	Using Through Lane R value and 20-yr ESALs	1.5" Wear (MVWE35035C), 1.5" Binder (MVNW35035C), 2" Base (LVNW35030B), 6" Cl 5		

All design shall meet State Aid Standards and the following: Revised: December 10, 2003

Design Detail ***(Items highlighted should be shown in plans or specs)***	**Desired Standard**	**Minimum Standard**	**Standard Achieved (Yes* or No** or NA)**	**Notes * - if Yes, circle, highlight or note standard ** - if No provide value used with justification (additional documentation if necessary)**
Right Turn/Bypass Lane (See attached details)	Using Through Lane R value and 20-yr ESALs	Proj. ADT <= 4300: 1.5" Wear (MVWE35035C), 2" Base (LVNW35030B), 6" Cl 5		
		Proj. ADT <= 11,000: 1.5" Wear (MVWE35035C), 1.5" Binder (MVNW35035C), 2" Base (LVNW35030B), 6" Cl 5		
Lane Width:				
Through Lane	12’			
Turn Lane	12'	11’		
Curb Reaction Distance	2’	1' (inside median)		
Cross Slopes:				
Through Lane	2%	2%		
Left Turn Lane	2%	2%		
Right Turn Lane	2.5%	2%		
Shoulder	4%	1% (With 6% Super on through lane)		
Turn lane length (See attached details)	Based of Peak hour traffic	300'		
Turn lane taper (See attached details)	1:15	1:10 (if 1:15 not possible)		
Type of Curb and Gutter:				
With design speed > 40mph	B424	B418 (or match existing)		
With Design Speed < 40mph	B624	B618 (or match existing)		
Median Width		4’ (at turn lanes)		
Median Surface Material	concrete			
Shoulder Width:				
Urban	8’	2' (B-minor and below)		
Rural (ADT>1500)	8'	6' (collector and below)		
Rural (ADT<1500)	6'	2' or existing if greater		
Inslope:				
Urban	1:4	1:3 outside clear zone		
Rural	1:4	1:3 outside clear zone		
Backslope	1:4	1:3		
Ditch Bottom Width	8'	5'		

All design shall meet State Aid Standards and the following: Revised: December 10, 2003

Design Detail ***(Items highlighted should be shown in plans or specs)***	**Desired Standard**	**Minimum Standard**	**Standard Achieved (Yes* or No** or NA)**	**Notes * - if Yes, circle, highlight or note standard ** - if No provide value used with justification (additional documentation if necessary)**
Clear Zones (from through lane):				
Urban	10’	10’		
Rural	30’	30’		
Bike Path	2'	2'		
Bike Path Width		8’		
Bike Path Surface	bituminous			
Rural: Distance between Path and Through Lane	22'	10' (Design Speed < 40 mph)		
Urban: Distance Between Path and Gutter	10’	6.5' (2.5' paved at turn lane)		
Distance Between Path and Right of Way	4'	2' (if no power poles)		
Right-of-Way Width:				
Principal Arterial	150	150		
Minor Arterial (urban)	120	120		
Minor Arterial (2-lane rural)	120	120		
Minor Arterial (4-lane rural)	150	140 (no trail)		
Collector	120	120		
DRAINAGE				
GENERAL	Conform to NPDES Phase II Requirements	Conform to NPDES Phase II Requirements		
Hydrology	Rural areas and mixed urban and rural areas use SCS CN method	Urban areas with less than 25 acres use Rational method		
STORM SEWER				
Design Frequency	10-year, 50-year at sags	10-year, 50-year at sags		
Pipe Size:				
Laterals	15"	12”		
Main	By Hydraulic Design	15"		
Type of Pipe	RCP Design 3006	RCP Design 3006		
Maximum Spread	MnDOT State Aid Manual	MnDOT State Aid Manual		
Pipe Cover		2'		
Pipe Velocity		3 ft./sec.		
Structure Type	Precast Concrete	Precast Concrete		
Casting Assemblies:				

All design shall meet State Aid Standards and the following: Revised: December 10, 2003

Design Detail ***(Items highlighted should be shown in plans or specs)***	**Desired Standard**	**Minimum Standard**	**Standard Achieved (Yes* or No** or NA)**	**Notes * - if Yes, circle, highlight or note standard ** - if No provide value used with justification (additional documentation if necessary)**
Catch Basins	MnDOT 816, 806, 825			
Manholes	MnDOT 715,700-4			
Drop Inlets	MnDOT 731			
CULVERTS				
Design Frequencies:				
Street Approach/Driveway	10-year	10-year		
Centerline	50-year	50-year		
Pipe Size:				
Driveway	By Hydraulic Design	15” (18" if L >= 60')		
Street Approach	By Hydraulic Design	18" (24" if L>= 60')		
Centerline	By Hydraulic Design	24"		
Culvert Type:				
Residential Driveway	CSP	CSP		
Commercial Driveway	RCP Design 3006	RCP Design 3006		
Street Approach	RCP Design 3006	RCP Design 3006		
Centerline	RCP Design 3006	RCP Design 3006		
Pipe Cover		2'		
Pipe Bedding		Per Mn/DOT Guidelines		
Safety Aprons:				
Pipe perpendicular to roadway	If = 30” pipe end inside clear zone	If = 30” pipe end inside clear zone		
Pipe parallel to roadway	If pipe end inside clear zone	If pipe end inside clear zone		
Safety Grate - Perpendicular Pipe	If = 30” pipe inside clear zone	If = 30” pipe inside clear zone		
Safety Grate - Parallel Pipe	If = 24” pipe end inside clear zone	If = 24” pipe end inside clear zone		
Trash Guard		If outlet, then all inlets		
Concrete Pipe Ties	All Culvert Joints	Last 3 joints to outlet		
PONDS				
Grading Plan	1' contour interval	1' contour interval		
Typical Slopes/Benches	1:10 at NWL for 10’; 1:4 above and below NWL	1:6 above and below NWL		
Permanent Pool Volume	Per watershed district requirement	equal to runoff from 2.5” rainfall		

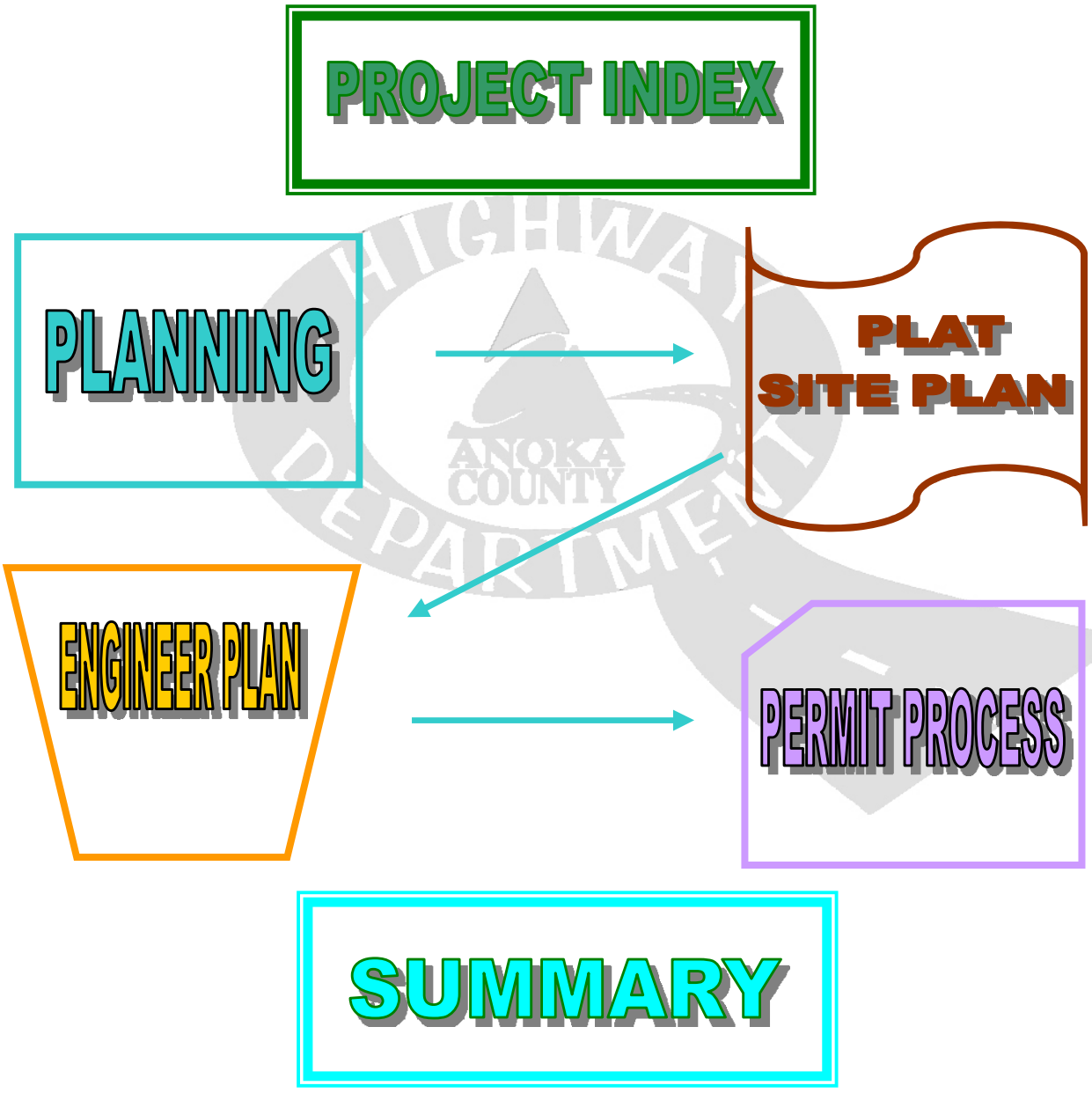
All design shall meet State Aid Standards and the following: Revised: December 10, 2003

Design Detail ***(Items highlighted should be shown in plans or specs)***	**Desired Standard**	**Minimum Standard**	**Standard Achieved (Yes* or No** or NA)**	**Notes * - if Yes, circle, highlight or note standard ** - if No provide value used with justification (additional documentation if necessary)**
100-Year Water Level	1' below shoulder PI	1' below shoulder PI		
Outlet Structure Design	control the proposed 1- or 2-year and 100-year runoff rates to pre-project rates	control the proposed 1- or 2-year and 100-year runoff rates to pre-project rates		
Emergency Spillway	provide for events larger than 100-year	provide for events larger than 100-year		
EROSION CONTROL				
Requirement	Conform to NPDES Phase II	Conform to NPDES Phase II		
Silt Fence	Placed around project perimeter.	All points of discharge off the project		
Rock Entrances, 1.5" washed rock	Length 100'	Length 50'		
Reference	Mn/DOT Erosion Control Handbook, by Office of Environmental Services			
MISCELLANEOUS				
Landscaping/Streetscaping	Conform to ACHD Landscape/Streetscape Guidelines	Conform to ACHD Landscape/Streetscape Guidelines		
Turf establishment:				
Sod	residential yards, commercial boulevards where irrigated	residential yards, commercial boulevards where irrigated		
Seed and Mulch	All other areas, including blvds that are not irrigated.	All other areas, including blvds that are not irrigated.		
Seed Type	28B - ditches, 60B - boulevards	28B - ditches, 60B - boulevards		
Mulch Type	Type 1	Type 1		
Erosion Control Blanket	Slopes 1:3 and steeper	Slopes 1:3 and steeper		
Pavement Markings:				
Lane Markings	epoxy	latex		
Pavement Messages, Arrows, X-Walks, Stop Lines	Poly preform/Tape	Poly preform/Tape		

****Design Requirments not to be construed as comprehensive. Additional items may be required.

ANOKA COUNTY HIGHWAY DEPARTMENT

DEVELOPMENT REVIEW PROCESS



PROJECT INDEX

INDEX	PLAT NAME OR DEVELOPMENT DESCRIPTION	CITY / TOWNSHIP	TYPE OF PROJECT	ROAD NUMBER(s)	SEGMENT NUMBER	A.K.A.	COMMENTS
1							
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13							
14							
15							
16							
17							
18							
19							

PLANNING PLAN REVIEW PROCESS

INDEX	PROJECT NAME, PLAN NAME, OR DEVELOPMENT DESCRIPTION	CITY / TOWNSHIP	COUNTY ROAD(S)	COMPREHENSIVE LONG RANGE PLAN/AMENDMENT	TRANSPORTATION PLAN/AMENDMENT	CORRIDOR OR INTERCHANGE STUDY/AMENDMEN	TRANSPORTATION PLAN	COMPREHENSIVE PLAN (LAND USE) AMENDMENT SPECIFIC PROJECT	EIS	EA	AUAR	EAW	DEVELOPER OR CITY CONTACT	CONTACT ADDRESS	CONSULTANT	CONTACT ADDRESS	DATE RECEIVED	DATE DUE	DATE REVIEW COMPLETED	REVIEW COMPLETE	COMMENTS
1																					
2			CR 65, 82, CSAH 5, 22, 24									X	Corrie LaDoucer, Burns	19800 Nowthen Boulevard NW, Anoka, MN 55303			30-Dec-03	29-Jan-04	20-Jan-94	Yes	
3																					
4																					
5																					
6						x							Brian Olson, Ramsey	15153 Nowthen Blvd. Ramsey, MN 55303			Ongoing				
7						x							Brian Olson, Ramsey	15153 Nowthen Blvd. Ramsey, MN 55303	The Tinklenberg Group	11234 Forest Court Minneapolis, 55449	In 2003				
8						x							Carolyn Braun, Anoka	2015 - 1st Ave. Anoka, MN 55303	N/A	N/A	March, 04				
9												x	Tom Collins, Ham Lake	13635 Johnson St. Ham Lake, MN 55304	Kjolhaug Environmental Services Co., Inc.	26105 Wild Rose Lane Shorewood, MN 5531	9-Feb-04	17-Mar-04	5-Mar-04	Yes	
10												x	Sam Lucast, Oak Grove	19900 Nightngale Street NW Oak Grove, MN 55011			26-May-04	25-Jun-04	18-Jun-04	Yes	
11																					
12																					
13																					
14																					
15																					
16																					
17																					

PLAT REVIEW STATUS AND TRACKING LOG

INDEX	PLAT NAME OR DEVELOPMENT DESCRIPTION	CITY / TOWNSHIP	TYPE OF PROJECT	DATE RECEIVED BY ACHD	ROUTING (CHECK INCLUDED STAFF)								DEADLINE FOR REVIEW COMMENTS	DATE LETTER SENT	MAILED	FAXED	FILE LOCATION (PLATS / RD#(s) / 4-DIGIT YEAR)	ANTICIPATED FEES:			COMMENTS
					GENE		ANDY WITTER		JOSIE SCOTT		JANE ROSE							PERMITS	ACCESS	ENG. PLAN REVIEW FEE	
					CHECK	DATE	CHECK	DATE	CHECK	DATE	CHECK	DATE									
1					X				X		X										
2				02/11/04	X	n/a			X	n/a	X	n/a	03/09/04	n/a	n/a	n/a	Burns/2004	n/a	n/a	n/a	Plat was withdrawn by developer - 3/2004
3				02/05/04	X		X	02/09/04	X		X		03/05/04								R/W needs reviewed + determined by P. Lemke
4				02/23/04							X	02/23/04	03/23/04	02/23/04							No ACHD involvement anticipated
5																					
6																					
7																					
8																					
9																					
10				02/26/04	X	03/08/04			X	03/08/04	X	03/08/04	03/12/04	03/08/04	X		CSAH 32 / Plats / 2004				devel. proposed; R/W review only; - defer comment on all other areas until scope of
11				02/04/04	X	02/26/04					X	02/26/04	03/04/04	02/26/04	X	X	CSAH 4/PLATS/2004	$110.00	$150.00	$450.00	Plat review process complete 2/26/2004
12				02/26/04	X	03/26/04			X	03/26/04	X	03/26/04	03/22/04	03/26/04	X	X	CSAH 23/PLATS/2004	$110.00		$550.00	
13				01/26/04	X				X		X		03/15/04				CSAH 12/PLATS/2004				Pete Lemke to determine if addt'l R/W is needed
14																					
15					X	03/02/04			X	03/02/04	X	03/02/04	02/24/04	03/02/04	X		CSAH 20 / Plats/ 2004	$110.00	$150.00	$850.00	Engineering plan review fee estimated (RTL + Bypass lane construction??)
16				03/10/04	X	04/27/04			X	04/27/04	X	04/27/04	04/30/04	04/27/04	X		CR 72/plats/2004	$110.00		$750.00	turn lanes + bypass lanes will be required (i conjunction with Rum River Bluffs)
17				03/10/04	X	04/27/04			X	04/27/04	X	04/27/04	04/30/04	04/27/04	X		CR 72/plats/2004	$110.00		$750.00	turn lanes + bypass lanes will be required (i conjunction with Creative Devel.)

INVOICE

ENGINEERING PLAN REVIEW PROCESS

INDEX	PLAT NAME OR DEVELOPMENT DESCRIPTION	CITY / TOWNSHIP	COUNTY ROAD	ENGINEER	ENGINEER CONTACT	CONTACT ADDRESS	PLAT REVIEW COMPLETE	DATE RECEIVED	RECEIVED BY	PAYMENT RECEIVED	PAYMENT DATE	DATE DUE	DATE REVIEW COMPLETED	ENGINEERING DESIGN ACCEPTABLE	COMMENTS	NOTES	COPY TO TRAFFIC	TYPE OF ROAD IMPROVEMENTS
1																		
2							n/a											
3																		
4							23-Feb-04											
5																		
6																		
7																		
8																		
9																		
10							8-Mar-04											
11							26-Feb-04											

PERMIT PROCESS

INDEX	PLAT NAME OR DEVELOPMENT DESCRIPTION	CITY / TOWNSHIP	TYPE OF PROJECT	PERMIT TYPE (FEE / NUMBER REQUIRED)						COMMENTS	FEE TOTAL
				RESIDENTIAL ACCESS		COMMERCIAL ACCESS		WORK IN RIGHT OF WAY			
				$150.00	#	$150.00	#	$110.00	#		
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											

Construction Site Stormwater Runoff ESC Inspection Form

Site Name:	**Permit No.:**	**Inspector(s):**
Address:	**Inspection Date:** ____ / ____ / ____ **Time:** _____ am/pm	**Photos Taken?** ☐Yes ☐No
Owner:	**Weather:**	**Date of Last Inspection:** ____ / ____ / ____
Contractor:	**Priority Area:** ☐Yes ☐No	**Last Rain Date:** ____ / ____ / ____ **Amount:** _____(inches)
Inspection Reason: ☐Routine ☐Complaint ☐Spot-Check	**Today's Rainfall** **Amount :** _____(inches)	**Rainfall Data Source :** ☐On-site Gauge ☐Weather Station w/in 1 mile

	BMP	Compliant?	Maintenance Required?	Corrective Action(s) Needed & Notes	Date Corrected
1.	Perimeter controls installed/maintained?	☐Yes ☐No	☐Yes ☐No		
2.	Natural features are protected with a BMP?	☐Yes ☐No	☐Yes ☐No		
3.	Storm drain inlets are properly protected?	☐Yes ☐No	☐Yes ☐No		
4.	Stockpiles protected and not placed in a conveyance?	☐Yes ☐No	☐Yes ☐No		
5.	Construction entrance prevents tracking?	☐Yes ☐No	☐Yes ☐No		
6.	Trash/litter collected and contained?	☐Yes ☐No	☐Yes ☐No		
7.	Non-active disturbed areas are stabilized?	☐Yes ☐No	☐Yes ☐No		
8.	Discharge points are free of sediment deposits?	☐Yes ☐No	☐Yes ☐No		
9.	Washout facilities are available/used?	☐Yes ☐No	☐Yes ☐No		
10.	Vehicle fueling areas are free of leaks and spills?	☐Yes ☐No	☐Yes ☐No		
11.	Potential contaminants are protected?	☐Yes ☐No	☐Yes ☐No		

BMP		Compliant?	Maintenance Required?	Corrective Action(s) Needed & Notes	Date Corrected
12.	Any evidence of discharges?	☐Yes ☐No	☐Yes ☐No		
13.	Portable toilets are upright and secure?	☐Yes ☐No	☐Yes ☐No		
15	Dewatering activities are using appropriate BMPs to avoid scour and selected chemicals are suited to soil types?	☐Yes ☐No	☐Yes ☐No		
16.	SWPPP on site?	☐Yes ☐No	☐Yes ☐No		
17.	Inspection reports available?	☐Yes ☐No	☐Yes ☐No		
18.	Training documentation is available?	☐Yes ☐No	☐Yes ☐No		
19.	Other:	☐Yes ☐No	☐Yes ☐No		
20.	Other:	☐Yes ☐No	☐Yes ☐No		

Additional Comments:

Anoka County ESC Inspection Log

Project	Address	Inspection Date	Comments	Acknowledgement Date, Time, w/Whom	Re-Inspection Date	Enforcement Action	Status
(Example) Maple Place	1234 Maple Lane, Maple, MN, 12345	6/12/2014	Tracking in street/SF not installed	Emailed Smith at 9am on 6/12/2014	6/19/2014	Restoration letter	Suspended

ORDINANCE #2000-2

Adopted by county board action on November 28, 2000

COUNTY OF ANOKA
Anoka County, Minnesota

ANOKA COUNTY RIGHT OF WAY ORDINANCE
FOR THE MANAGEMENT OF UTILITIES IN THE PUBLIC RIGHT OF WAY OF ROADS UNDER THE COUNTY'S JURISDICTION

An ordinance to enact a new Chapter of the Anoka County Code of Ordinances to administer and regulate utilities in the public right of way in the public interest, and to provide for the issuance and regulation of Right of Way Permits.

The Anoka County Board of Commissioners ordains:

Chapter 1
Right of Way Management

Sec. 1.01. Findings, Purpose, and Intent.

To provide for health, safety and welfare of its citizens, and to ensure the integrity of its roads and streets and the appropriate use of the right of ways, the County strives to keep its right of way in a state of good repair and free from unnecessary encumbrances.

Accordingly, the County hereby enacts this new chapter of this code relating to right of way permits and administration. This chapter imposes regulation on the placement and maintenance of facilities and equipment currently within its right of way or to be placed therein at some future time. It is intended to complement the regulatory roles of state and federal agencies. Under this chapter, persons excavating and obstructing the right of way will bear
financial responsibility for their work. Finally, this chapter provides for recovery of out-of-pocket and projected costs from persons using the public right of way.

This chapter shall be interpreted consistently with 1997 Session Laws, Chapter 123, substantially codified in Minn. Stat. §§ 237.16, 237.162, 237.163, 237.79, 237.81, and 238.086 (the "Act") and the other laws governing applicable rights of the County and users of the right of way. This chapter shall also be interpreted consistent with Minn. Rules 7819.0050 to 7819.9950 where possible. To the extent any provision of this chapter cannot be interpreted consistently with the Minn. Rules, that interpretation most consistent with the Act and other applicable statutory and case law is intended. This chapter shall not be interpreted to limit the regulatory and police powers of the County to adopt and enforce general ordinances necessary to protect the health, safety, and welfare of the public.

Sec. 1.02. Election to Manage the Public Right of Way

Pursuant to the authority granted to the County under state and federal statutory, administrative and common law, the County hereby elects pursuant Minn. Stat. 237.163 subd.2(b), to manage right of way under its jurisdiction.

"Manage the Right of Way", means the authority of the County to do any of all of the following:

- require registration;
- require construction performance bonds and insurance coverage;
- establish installation and construction standards;
- establish and define location and relocation requirements for equipment and facilities;

- establish coordination and timing requirements;
- require right of way users to submit henceforth required by the County project data reasonably necessary to allow the County to develop a right of way mapping system including GIS system information;
- require right of way users to submit, upon request of the County, existing data on the location of user's facilities occupying the public right of way within the County. The data may be submitted in the form maintained by the user in a reasonable time after receipt of the request based on the amount of data requested;
- establish right of way permitting requirements for excavation and obstruction;
- establish removal requirements for abandoned equipment or facilities, if required in conjunction with other right of way repair, excavation or construction; and
- impose reasonable penalties for unreasonable delays in construction.

Sec. 1.03. Definitions.

The following definitions apply in this Chapter of this Code. References hereafter to "sections" are unless otherwise specified references to sections in this Chapter. Defined terms remain defined terms whether or not capitalized.

"Abandoned Facility" means a facility no longer in service or physically disconnected from a portion of the operating facility, or from any other facility, that is in use or still carries service. A facility is not abandoned unless declared so by the right of way user.

"Applicant" means any Person requesting permission to Excavate or Obstruct a Right of Way.

"Commission" means the State Public Utilities Commission.

"Congested Right of Way" means a crowded condition in the subsurface of the public right of way that occurs when the maximum lateral spacing between existing underground facilities does not allow for construction of new underground facilities without using hand digging to expose the existing lateral facilities in conformance with Minn. Stat. § 216D.04, subd. 3, over a continuous length in excess of 500 feet.

"Construction Performance Bond" means any of the following forms of security provided at Permittee's option:

(a) Individual project bond;

(b) Cash deposit;

(c) Security of a form listed or approved under Minn. Stat. § 15.73, sub3;

(d) Letter of Credit, in form acceptable to the County;

(e) Self-insurance in form acceptable to the County;

(f) Blanket bond for projects within the county or construction bond for a specified time and in a form acceptable to the County.

"County" means the County of Anoka, Minnesota. For purposes of section 1.28 Indemnification and Liability, County means its elected and appointed officials, officers, employees and agents.

"Degradation" means a decrease in the useful life of the Right of Way caused by excavation in or disturbance of the Right of Way, resulting in the need to reconstruct such Right of Way earlier than would be required if the excavation did not occur.

"Degradation Cost" subject to Minn. Rules 7819.1100 means the cost to achieve a level of restoration as determined by the County at the time the permit is issued, not to exceed the maximum Restoration shown in plates 1 to 13, set forth in Minn. Rules parts 7819.9900 to 7819.9950.

"Degradation Fee" means the estimated fee established at the time of permitting by the County to recover costs associated with the decrease in the useful life of the Right of Way caused by the excavation, and which equals the Degradation Costs.

"Delay Penalty" is the penalty imposed as a result of unreasonable delays in Right of Way excavation, obstruction, patching, or restoration as established by permit.

"Department" means the Anoka County Highway Department.

"Department Inspector" means any Person authorized by the director to carry out inspections related to the provisions of this Chapter.

"Director" means the County Engineer, or her or his designee.

"Emergency" means a condition that (1) poses danger to life or health, or of a significant loss of property; or (2) requires immediate repair or replacement of Facilities in order to restore Service to a customer.

"Equipment" means any tangible asset used to install, repair, or maintain Facilities in any Right of Way.

"Excavate" means to dig into or in any way remove or physically disturb or penetrate any part of a public Right of Way.

"Facility or Facilities" means any tangible asset in the Right of Way required to provide Utility Service.

"Five-year project plan" shows projects adopted by the County and proposed for construction within the next five years.

"High Density Corridor" means a designated portion of the public right of way within which telecommunications right of way users having multiple and competing facilities may be required to build and install facilities in a common conduit system or other common structure.

"Hole" means an excavation in the pavement, with the excavation having a length less than the width of the pavement.

"Local Representative" means a local Person or Persons, or designee of such Person or Persons, authorized by a Registrant to accept legal notice or service and to accept communications and to make decisions for that Registrant regarding all matters within the scope of this Chapter.

"Management Costs" means the actual costs the County incurs in managing its public Rights of Way, including such costs, if incurred, as those associated with registering Applicants; issuing, processing, and verifying Right of Way Permit applications; inspecting job sites and restoration projects; maintaining, supporting, protecting, or moving user Equipment and Facilities during public Right of Way work; determining the adequacy of Right of Way restoration; restoring work inadequately performed after providing notice and the opportunity to correct the work; and revoking Right of Way Permits. Management costs do not include payment by a Telecommunications Right of Way User for the use of the Right of Way, the fees and cost of litigation relating to the interpretation of Minn. Session Laws 1997, Chapter 123; Minn. Stat. §§ 237.162 or 237.163 or any ordinance enacted under those sections, or the County fees and costs related to appeals taken pursuant to Section 130 of this Chapter.

"Obstruct" means to place any tangible object in a public Right of Way so as to hinder free and open passage over that or any part of the Right of Way.

"Patch or Patching" means a method of pavement replacement that is temporary in nature. A Patch consists of (1) the compaction of the subbase and aggregate base, and (2) the replacement, in kind, of the existing pavement for a minimum of two feet beyond the edges of the excavation in all directions. A Patch is considered full Restoration only when the pavement is included in a project programmed by the County, or as approved by the Director.

"Pavement" means any type of improved surface that is within the public right of way and that is paved or otherwise constructed with bituminous, concrete, aggregate, or gravel.

"Permit" has the meaning given "right of way permit" in Minn. Stat. § 237.162.

"Permittee" means any Person to whom a Permit For Installation Of Utilities Or For Placing Obstructions On County Highway System has been granted by the County under this Chapter.

"Permit For The Installation Of Utilities Or For Placing Obstructions On County Highway System" means the permit which, pursuant to this Chapter, must be obtained before a Person may excavate in or obstruct any part of a Right of Way.

"Permit Fee" means money paid to the County by an Applicant to cover the costs as provided in Section 1.12.

"Person" means an individual or entity subject to the laws and rules of this state, however organized, whether public or private, whether domestic of foreign, whether for profit or nonprofit, and whether natural, corporate, or political.

"Probation" means the status of a person that has not complied with the conditions of this chapter.

"Probationary Period" means one year from the date that a Person has been notified in writing that they have been put on Probation.

"Public Right of Way" means the area on, below, or above a public roadway, highway, street, cartway, bicycle lane and public sidewalk in which the County has an interest, including other dedicated rights of way for travel purposes and utility easements of the County. A public Right of Way does not include the airwaves above a Right of Way with regard to cellular or other nonwire telecommunications or broadcast service. The lands described by an easement, deed, dedication, title, law or occupation of a road, highway, street, cartway, bicycle lane, or sidewalk are included as right of way.

"Registrant" means any person who (1) has or seeks to have its equipment or facilities located in any right of way, or (2) in any way occupies or uses, or seeks to occupy or use, the right of way or place its facilities or equipment in the right of way.

"Restoration Cost" means the amount of money paid to the County by a Permittee to achieve the level of restoration according to plates 1 to 13 of the Minnesota Public Utilities Commission rules.

"Restore or Restoration" means the process by which an excavated public Right of Way and surrounding area including pavement foundation is returned to the same condition (and life expectancy) that existed before excavation.

"Right of Way Permit" means the Anoka County Highway Department Permit For Installation Of Utilities Or For Placing Obstructions On The County Highway System, required by this Chapter.

"Right of Way User" means (1) a telecommunications right of way user as defined by Minn. Stat. §

237.162, subd. 4; or (2) a person owning or controlling a facility in the right of way that is used or intended to be used for providing utility service, and who has a right under law, franchise, or ordinance to use the public right of way.

"Service" or "Utility Service" includes (1) those services provided by a public utility as defined in Minn. Stat. § 216B.02, subds. 4 and 6; (2) services of a telecommunications right of way user, including transporting of voice or data information; (3) services of a cable communications system as defined in Minn. Stat. Chapter. 238; (4) natural gas or electric energy or telecommunications services provided by the city; (5) services provided by a cooperative electric association organized under Minn. Stat., Chapter 308A; and (6) water, sewer, steam, cooling or heating services.

"Supplementary Application" means an application made to Excavate or Obstruct more of the Right of Way than allowed in, or to extend, a permit that had already been issued.

"Telecommunication Rights of Way User" means a Person owning or controlling a Facility in the Right of Way, or seeking to own or control a Facility in the Right of Way, that is used or is intended to be used for transporting telecommunication or other voice or data information. For purposes of this Chapter, a cable communication system defined and regulated under Minn. Stat. Chap. 238, and telecommunication activities related to providing natural gas or electric energy services whether provided by a public utility as defined in Minn. Stat. § 216B.02, a municipality, a municipal gas or power agency organized under Minn. Stat. Chaps. 453 and 453A, or a cooperative electric association organized under Minn. Stat. Chap. 308A, are not Telecommunications Right of Way Users for purposes of this Chapter.

"Temporary Surface" means the compaction of subbase and aggregate base and replacement, in kind, of existing pavement only to the edges of the excavation. It is temporary in nature except when the replacement is of pavement included in the current year or the year following the current year in the County's Five Year Project Plan.

"Trench" means an excavation in the pavement, with the excavation having a length equal to or greater than the width of the pavement.

"Unusable or unused Equipment and Facilities" means equipment and Facilities in the Right of Way which have remained unused for one year or for facilities that are not registered or located by Gopher One Call; or for which the Registrant is unable to provide proof that it has either a plan to begin using it within the next twelve (12) months or a potential purchaser or user of the equipment or facilities.

Sec. 1.04. Administration.

The Director is the principal County official responsible for the administration of the Rights of Way, Right of Way Permits, and the ordinances related thereto. The Director may delegate any or all of the duties hereunder.

Sec. 1.05. Utility Coordination Committee

The County may create an advisory utility coordination committee. Participation on the committee is voluntary. It will be composed of any registrants that wish to assist the County in obtaining information and by making recommendations regarding use of the right of way, and to improve the process of performing construction work therein. The Director may determine the size of such committee and shall appoint members from a list of registrants that have expressed a desire to assist the County.

Sec. 1.06. Registration and Right of Way Occupancy.

Subd. 1. Registration. Each Person who occupies, uses, or seeks to occupy or use, the Right of Way or place any Equipment or Facilities in the Right of Way, including Persons with installation and maintenance responsibilities by lease, sublease or assignment, must register with the County. Registration will consist of providing application information and paying a registration fee. Registration fees shall be set by the County Board as prescribed by law.

Subd. 2. Registration Prior to Work. No Person may construct, install, repair, remove, relocate, or perform any other work on, or use any Facilities or any part thereof in any Right of Way without first being registered with the County.

Subd. 3. Exceptions. Resident owned sewer and water service lines to a city main and resident owned drain tile lines shall not be required to register, unless requested by the County, but shall be required to obtain permits for excavation and obstruction.

However, nothing herein relieves a Person from complying with the provisions of the Minn. Stat. Chap. 216D, "Gopher One call" Law.

Sec. 1.07. Registration Information.

Subd. 1. Information Required. The information provided to the Director at the time of registration shall include, and be on the form approved by the County or this ordinance, but not be limited to:

(a) Each Registrant's name, Gopher One-Call registration certificate number, address and e-mail address if applicable, and telephone and facsimile numbers.

(b) The name, address and e-mail address, if applicable, and telephone and facsimile numbers of a Local Representative. The Local Representative or designee shall be available at all times. Current information regarding how to contact the Local Representative in an Emergency shall be provided at the time of registration.

(c) A certificate of insurance or self-insurance:

(1) Verifying that an insurance policy has been issued to the Registrant by an insurance company licensed to do business in the State of Minnesota, or a form of self insurance acceptable to the Director;

(2) Verifying that the Registrant is insured against claims for Personal injury, including death, as well as claims for property damage arising out of the (i) use and occupancy of the Right of Way by the Registrant, its officers, agents, employees and Permittees, and(ii) placement and use of Facilities in the Right of Way by the Registrant, its officers, agents, employees and Permittees, including, but not limited to, protection against liability arising from completed operations, damage of underground Facilities and collapse of property;

(3) Naming the County as an additional insured as to whom the coverage required herein are in force and applicable and for whom defense will be provided as to all such coverage;

(4) Requiring that the Director be notified thirty (30) days in advance of cancellation of the policy or material modification of a coverage term;

(5) Indicating comprehensive liability coverage, automobile liability coverage, workers compensation and umbrella coverage established by the Director in amounts sufficient to protect the County and the public and to carry out the purposes and policies of this Chapter.

(d) The County may require a copy of the actual insurance policies.

(e) If the Person is a corporation, a copy of the certificate required to be filed under Minn. Stat. § 300.06 as recorded and certified to by the Secretary of State.

(f) A copy of the Person's order granting a certificate of authority from the Minnesota Public Utilities Commission (PUC) or other applicable state or federal agency, where the Person is lawfully required to have such certificate from said Commission or other state or federal agency.

Subd. 2. Notice of Changes. The Registrant shall keep all of the information listed above current at all times by providing to the Director information as to changes within fifteen (15) days following the date on which the Registrant has knowledge of any change.

Sec. 1.08. Reporting Obligations.

Subd. 1. Operations. Each Registrant that provides utility service shall, at the time of registration and by December 1 of each year, file a construction and major maintenance plan for underground Facilities with the Director. Such plan shall be submitted using a format designated by the Director and shall contain the information determined by the Director to be necessary to facilitate the coordination and reduction in the frequency of excavations and Obstructions of Rights of Way. The county shall maintain in the file a copy of the county's construction plan for construction projects. The utility facility plans shall be kept up-to-date by the Registrant. The plans shall be on file and available for public inspection.

The plan shall include, but not be limited to, the following information:

(a) The locations and the estimated beginning and ending dates of all Projects to be commenced during the next calendar year (in this section, a "Next-Year Project");

(b) How the registrant will accommodate the county plan;

(c) To the extent known, the tentative locations and estimated beginning and ending dates for all Projects contemplated for the five years following the next calendar year (in this section, a "Five-Year Project").

It is the registrant's responsibility to keep informed on available plans.

The term "project" in this section shall include both Next-year Projects and Five-year Projects but does not include individual service line hookups and minor maintenance unless they are part of an area wide program.

Subd. 2. Additional Next-year Projects. Notwithstanding the foregoing, the Director will not deny an application for a Right of Way Permit for failure to include a project in a plan submitted to the County if the Registrant has used commercially reasonable efforts to anticipate and plan for the project.

Sec. 1.09. Permit Requirement.

Subd. 1. Permit Required. Except as otherwise provided in this Code, no Person may Obstruct, or Excavate any Right of Way without first registering and having obtained the appropriate Right of Way Permit from the County to do so.

Subd. 2. Permit Extensions. No Person may Excavate or Obstruct the Right of Way beyond the date or dates specified in the permit unless such Person (i) makes a Supplementary Application for another Right of Way Permit before the expiration of the initial permit, and (ii) a new permit or permit extension is granted.

Subd. 3. Delay Penalty. In accordance with Minn. Rule 7819.1000 subp. 3 notwithstanding subd. 2 of this Section, the County shall establish and impose a Delay Penalty for unreasonable delays in Right of Way excavation, Obstruction, Patching, or Restoration. The Delay Penalty shall be established from time to time by County Board action and shall include any delays or damages charged by the county's construction contractor and may include liquidated damages consistent with the contract.

Subd. 4. Permit Display. Permits issued under this Chapter shall be conspicuously displayed or otherwise available at all times at the indicated work site and shall be available for inspection by the County.

Sec. 1.10. Permit Applications.

Application for a permit is made to the Director. Right of Way Permit applications shall contain, and will be considered complete only upon compliance with the requirements of, the following provisions:

(a) Registration with the County pursuant to this Chapter;

(b) Submission of a completed permit application form, including all required attachments, and scaled drawings showing the location and area of the proposed project and the location of all known existing and proposed Facilities.

(c) Payment of money due the County for:

(1) permit fees, estimated Restoration Costs and other Management Costs;

(2) prior Obstructions or Excavations;

(3) any undisputed loss, damage, or expense suffered by the County because of Applicant's prior excavations or Obstructions of the right of way or any Emergency actions taken by the County;

(4) franchise fees or other charges, if applicable.

(d) Payment of disputed amounts due the County by posting security or depositing in an escrow account an amount equal to at least 110% of the amount owing.

(e) Posting an additional or larger construction performance bond for additional facilities when applicant requests an excavation or obstruction permit to install additional facilities and the County deems the existing construction performance bond inadequate under applicable standards.

Sec. 1.11. Issuance of Permit; Conditions.

Subd. 1. Permit Issuance. If the Applicant has satisfied the requirements of this Chapter, the County shall issue a permit.

Subd. 2. Conditions. The Director may impose reasonable conditions upon the issuance of the permit and the performance of the Applicant thereunder to protect the health, safety and welfare or, when necessary, to protect the Right of Way and its current and future use.

Sec. 1.12. Permit Fees.

Subd. 1. Permit Fee. The county shall establish a Permit For Installation Of Utilities Or For Placing Obstructions On County Highway System fee in an amount sufficient to recover the following costs. Permit fees shall be established by the County Board and may be amended at any public meeting.

(a) the County Management Costs;

(b) Degradation Costs, if applicable.

Subd. 2. Payment of Permit Fees. No Right of Way Permit shall be issued without payment of the Permit Fee unless the County allows Applicants to pay such fees within thirty (30) days of billing.

Subd. 3. Non refundable. Permit fees that were paid for a permit that the Director has revoked for a breach as stated in Section 1.22 are not refundable.

Subd. 4. Application to Franchises. Unless otherwise agreed to in a franchise, management costs may be charged separately from and in addition to the franchise fees imposed on a right of way user in the franchise.

Sec. 1.13. Right of Way Patching and Restoration.

Subd. 1. Timing. The work to be done under the Excavation Permit, and the Patching and Restoration of the Right of Way as required herein, must be completed within the dates specified in the permit, increased by as many days as work could not be done because of extraordinary circumstances beyond the control of the Permittee or when work was prohibited as unseasonable or unreasonable under Section 1.15.

Subd. 2. Temporary Surfacing, Patch and Restoration. Permittee shall Patch its own work.

(a) County Restoration. If the County restores any part of the Right of Way, Permittee shall pay the costs thereof within thirty (30) days of billing. If, the County restores only the surface of the right of way and during the thirty-six (36) months following such Restoration, the pavement settles, the Permittee shall pay to the County, within thirty (30) days of billing, all costs related to restoring the Right of Way or associated with having to correct the defective work, which may include removal and replacement of any or all work done by the Permittee. These costs shall include administrative, overhead mobilization, material, labor, and equipment.

(b) Permittee Restoration. If the Permittee Restores the Right of Way itself, it shall at the time of application for a Right of Way Permit requiring excavation within Anoka County Right of Way post a Construction Performance Bond in an amount

determined by the Director to be sufficient to cover the cost of Restoration. If, within thirty-six (36) months after completion of the Restoration of the Right of Way, the Director determines that the Right of Way has been properly Restored, the surety on the Construction Performance Bond shall be released.

(c) Degradation Fee and Patching in Lieu of Restoration to PUC Standards. In lieu of right of way restoration, a right of way user may elect to pay a degradation fee. However, the right of way user shall remain responsible for patching and the degradation fee shall not include the cost to accomplish these responsibilities.

Subd. 3. Standards. The Permittee shall perform Temporary Surfacing Patching and Restoration including backfill, compaction, and landscaping according to the standards and with the materials specified by the Director. The Director shall have the authority to prescribe the manner and extent of the Restoration, and may do so in written procedures of general application or on a case-by-case basis. The Director in exercising this authority shall comply with PUC standards for Right of Way Restoration (see PUC Rules 7819.990 to 7819.9950) and require conformance to Minnesota Department of Transportation (MnDOT) standard specifications and local government specifications and drawing and shall further be guided by the following considerations:

(a) The number, size, depth and duration of the excavations, disruptions or damage to the Right of Way;

(b) The traffic volume carried by the Right of Way; the character of the neighborhood surrounding the Right of Way;

(c) The pre-excavation condition of the Right of Way; the remaining life-expectancy of the Right of Way affected by the excavation;

(d) Whether the relative cost of the method of restoration to the Permittee is in reasonable balance with the prevention of an accelerated depreciation of the right of way that would otherwise result from the excavation, disturbance or damage to the Right of Way; and

(e) The likelihood that the particular method of restoration would be effective in slowing the depreciation of the Right of Way that would otherwise take place.

Subd. 4. Guarantees. The Permittee guarantees its work and shall maintain it for thirty-six (36) months following its completion. During this 36-month period it shall, upon notification from the Director, correct all restoration work to the extent necessary, using the method required by the Director. Said work shall be completed within five (5) calendar days of the receipt of the notice from the Director, not including days during which work cannot be done because of circumstances constituting force majeure or days when work is prohibited as unseasonable or unreasonable under Section 1.16.

Subd. 4(a). Duty to Correct Defects. The permittee shall correct defects in patching, or restoration performed by permittee or its agents. Permittee, upon notification from the County, shall correct all restoration work to the extent necessary, using the method required by the County. Said work shall be completed within five (5) calendar days of the receipt of the notice from the County, not including days during which work cannot be done because of circumstances constituting force majeure or days when work is prohibited as unseasonal or unreasonable under Section 1.16.

Subd. 5. Failure to Restore. If the Permittee fails to Restore the Right of Way in the manner and to the condition required by the Director, or fails to satisfactorily and timely complete all Restoration required by the Director, the Director at its option may do such work. In that event the Permittee shall pay to the County, within thirty (30) days of billing, the cost of Restoring the Right of Way. If Permittee fails to pay as required, the County may exercise its rights under the Construction Performance Bond.

Sec. 1.14. Joint Applications.

Subd. 1. Joint Application. Registrants may jointly apply for a Permit For Installation Of Utilities Or For Placing Obstructions On County Highway System at the same place and time.

Subd. 2. Shared Fees. Registrants who apply for permits for the same Obstruction or Excavation, which the Director does not perform, may share in the payment of the Permit Fee. Registrants must agree among themselves as to the portion each will pay and indicate the same on their applications.

Subd. 3. With County Construction Projects. Registrants who join in a scheduled Obstruction or excavation coordinated with a County construction project by the Director, whether or not it is a joint application by two or more Registrants or a single application, are not required to pay the Obstruction and Degradation portions of the permit fee, but a permit is still required.

Sec. 1.15. Supplementary Applications.

Subd. 1. Limitation on Area. A Right of Way Permit is valid only for the area of the Right of Way specified in the permit. No Permittee may do any work outside the area specified in the permit, except as provided herein. Any Permittee which determines that an area greater than that specified in the permit must be Obstructed or Excavated must before working in that greater area (I) make application for a permit extension and pay any additional fees required thereby, and (ii) be granted a new permit or permit extension.

Subd. 2. Limitation on dates. A Right of Way Permit is valid only for the dates specified in the permit. No Permittee may begin its work before the permit start date or, except as provided herein, continue working after the end date. If a Permittee does not finish the work by the permit end date, it must apply for a new permit for the additional time it needs, and receive the new permit or an extension of the old permit before working after the end date of the previous permit. This Supplementary Application must be done before the permit end date. Permits for non-emergency work shall be submitted at least 72 hours prior to the planned start of work.

Sec. 1.16. Other Obligations.

Subd. 1. Compliance With Other Laws. The applicant must notify and obtain a permit from any township or city through which it passes if said township or city so requires. Obtaining a Right of Way Permit does not relieve Permittee of its duty to obtain all other necessary permits, licenses, and authority and to pay all fees required by the County or other applicable rule, law or regulation. Permittee shall comply with other local codes and with road load restrictions. A Permittee shall comply with all requirements of local, state and federal laws, including Minn. Stat. § 216D.01-.09 ("Gopher One Call Excavation Notice System"). A Permittee shall perform all work in conformance with all applicable codes and established rules and regulations, and is responsible for all work done in the Right of Way pursuant to its permit, regardless of who does the work.

Subd. 2. Prohibited Work. Except in an Emergency, and with the approval of the County, no Right of Way Obstruction or Excavation may be done when seasonally prohibited or when conditions are unreasonable for such work.

Subd. 3. Interference with Right of Way. A Permittee shall not so Obstruct a Right of Way that the natural free and clear passage of water through the gutters, culverts, ditches tiles or other waterways shall be interfered. Private vehicles of those doing work in the Right of Way may not be parked within or next to a permit area, unless parked in conformance with county or applicable township and city parking regulations. The loading or unloading of trucks must be done solely within the defined permit area unless specifically authorized by the permit.

Traffic control shall conform to the MMUTCD and its field manual and any written directions of the county engineer or his or her designee.

Sec. 1.17. Denial of Permit.

The County may deny a permit for failure to meet the requirements and conditions of this Chapter or if the County determines that the denial is necessary to protect the public health, safety, and welfare or when necessary to protect the Right of Way and its current and future use. The County may deny a permit if the utility has failed to comply with previous permit conditions. The County may withhold issuance of a permit until conditions of previous permit are complied with.

Sec. 1.18. Installation Requirements.

The excavation, backfilling, Patching and Restoration, and all other work performed in the Right of Way shall be done in conformance with Minn. Rules 7819.1100 and 7819.5000 and shall conform to MnDOT standard specifications and other applicable local requirements, in so far as they are not inconsistent with the Minn. Stat. §§ 237.162 and 237.163.

Sec. 1.19. Inspection.

Subd. 1. Notice of Completion. When the work under any permit hereunder is completed, the Permittee shall furnish a Completion Certificate in accordance with Minn. Rule 7819.1300.

Subd. 2. Site Inspection. Permittee shall make the work-site available to the County and to all others as authorized by law for inspection at all reasonable times during the execution of and upon completion of the work.

Subd 3. Authority of County.

(a) At the time of inspection the Director may order the immediate cessation and correction of any work which poses a serious threat to the life, health, safety or well being of the public.

(b) The Director may issue an order to the Permittee for any work which does not conform to the terms of the permit or other applicable standards, rules, laws, conditions, or codes. The order shall state that failure to correct the violation will be cause for revocation of the permit. Within ten (10) days after issuance of the order, the Permittee shall present proof to the Director that the violation has been corrected. If such proof has not been presented within the required time, the Director may revoke the permit pursuant to Sec. 1.22.

(c) The cost of any action required by the County shall be paid by the permittee.

Sec. 1.20. Work Done Without a Permit

Subd. 1. Emergency Situations. Each Registrant shall immediately notify the Director of any event regarding its Facilities that it considers to be an Emergency. The Registrant may proceed to take whatever actions are necessary to respond to the Emergency. Within two business days after the occurrence of the Emergency the Registrant shall apply for the necessary permits, pay the fees associated therewith and fulfill the rest of the requirements necessary to bring itself into compliance with this Chapter for the actions it took in response to the Emergency.

If the County becomes aware of an Emergency regarding a Registrant's Facilities, the County will attempt to contact the Local Representative of each Registrant affected, or potentially affected, by the Emergency. In any event, the County may take whatever action it deems necessary to correct the Emergency, the cost of which shall be borne by the Registrant whose Facilities occasioned the Emergency.

Subd. 2. Non-Emergency Situations. Except in an Emergency, any Person who, without first having obtained the necessary permit, Obstructs or Excavates a Right of Way must subsequently obtain a permit, pay double the normal fee for said permit, pay double all the other fees required by the County Code, and deposit with the County the fees necessary to correct any damage to the Right of Way and comply with all of the requirements of this Chapter.

Sec. 1.21. Supplementary Notification.

If the Obstruction or Excavation of the Right of Way begins later or ends sooner than the date given on the permit, Permittee shall notify the County of the accurate information as soon as this information is known.

Sec. 1.22. Revocation of Permits.

Subd. 1. Substantial Breach. The County reserves its right, as provided herein, to revoke any Right of Way Permit, without a fee refund, if there is a substantial breach of the terms and conditions of any statute, ordinance, rule or regulation, or any material condition of the permit including a threat to the safety of workers, or the right of way user or the utility users. A substantial breach by Permittee shall include, but shall not be limited to, the following:

(a) The violation of any material provision of the Right of Way Permit;

(b) An evasion or attempt to evade any material provision of the Right of Way Permit, or the perpetration or attempt to perpetrate any fraud or deceit upon the County or its citizens;

(c) Any material misrepresentation of fact in the application for a Right of Way Permit;

(d) The failure to complete the work in a timely manner; unless a permit extension is obtained, or unless the failure to complete work is due to reasons beyond the Permittee's control, or failure to relocate existing facilities as specified in Sec. 1.24; or

(e) The failure to correct, in a timely manner, work that does not conform to a condition indicated on an Order issued pursuant to Sec. 1.19.

(f) Failure of the utility to pay any required costs, fees, or charges billed by the county.

(g) Failure to provide traffic control that conforms to the provisions of the Minnesota Manual on Uniform Traffic Control Devices, including the Temporary Traffic Control Zones Field Manual.

Subd. 2. Written Notice of Breach. If the County determines that the Permittee has committed a substantial breach of a term or condition of any statute, ordinance, rule, regulation or any condition of the permit the County shall make a written demand upon the Permittee to remedy such violation. The demand shall state that continued violations may be cause for revocation of the permit. A substantial breach, as stated above, will allow the County, at its discretion, to place additional or revised conditions on the permit to mitigate and remedy the breach.

Subd. 3. Response to Notice of Breach. Within twenty-four (24) hours of receiving notification of the breach, Permittee shall provide the County with a plan, acceptable to the County, that will cure the breach. Permittee's failure to so contact the County, or the Permittee's failure to submit an acceptable plan, or Permittee's failure to reasonably implement the approved plan, shall be cause for immediate revocation of the permit. Further, Permittee's failure to so contact the County, or the Permittee's failure to submit an acceptable plan, or Permittee's failure to reasonably implement the approved plan, shall automatically revoke the permit and may include placing the Permittee on Probation for one (1) full year.

Subd. 4. Cause for Probation. From time to time, the County may establish a list of conditions of the permit, which if breached will automatically place the Permittee on Probation for one full year, such as, but not limited to, working out of the allotted time period or working on Right of Way grossly outside of the permit authorization.

Subd. 5. Automatic Revocation. If a Permittee, while on Probation, commits a breach as outlined above, Permittee's permit will automatically be revoked and Permittee will not be allowed further permits for one full year, except for Emergency repairs.

Subd. 6. Reimbursement of County Costs. If a permit is revoked, the Permittee shall also reimburse the County for the County's reasonable costs, including Restoration Costs and the costs of collection and reasonable attorneys' fees incurred in connection with such revocation.

Subd. 7. Revoked Permit. If the county revokes a utility's permit for breach of this ordinance, the utility will not be allowed to obstruct or excavate within the county Right of Way until the breach situation is corrected to the satisfaction of the Director and the permit is reissued.

Sec. 1.23. Mapping Data.

Subd. 1. Information Required. Each Registrant and Permittee shall provide Mapping information required by the County in accordance with Minn. Rules 7819.4000 and 7819.4100.

Therefore, in managing the use of its public rights of way, a local government unit may establish, develop, and implement a right of way mapping system as follows. The purpose of a mapping system is to:

(a) allow flexibility in its use by the local government as an effective management tool;

(b) enhance public safety and user facility safety;

(c) provide for long-term cost savings;

(d) improve public right of way design quality; and

(e) allow for better information collection and cooperative usage among local government units, telecommunications companies, and other users of the public right of way.

Subd. 2. Application required. When a local government unit requires a permit for excavation in or obstruction of its public right of way, a person wishing to undertake a project within the public right of way shall submit a right of way permit application, which may required the filing of mapping information pursuant to subdivision 3.

Subd. 3. Information. The local government unit may require as part of its permit application the filing of all the following information:

(a) location and approximate depth of applicant's mains, cables, conduits, switches, and related equipment and facilities, with the location based on:

(1) offsets from property lines, distances from the centerline of the public right of way, and curb lines as determined by the local government unit;

(2) coordinates derived from the coordinate system being used by the local government unit; or

(3) any other system agreed upon by the right of way user and local government unit;

(b) the type and size of the utility facility;

(c) a description showing aboveground appurtenances;

(d) a legend explaining symbols, characters, abbreviations, scale, and other data shown on the map, and

(e) any facilities to be abandoned, if applicable, in conformance with Minn. Stat. § 216D.04, subd. 3.

Subd. 4. Changes and corrections. The application must provide that the applicant agrees to submit "as built" drawings, reflecting any changes and variations from the information provided under subdivision 3, items A to E.

Subd. 5. Additional construction information. In addition, the right of way user shall submit to the local government unit at the time the project is completed a completion certificate according to part 7819.1300.

Subd. 6. Manner of conveying permit data. A right of way user is not required to provide or convey mapping information or data in a format or manner that is different from what is currently utilized and maintained by that user. A permit application fee may include the cost to convert the data furnished by the right of way user to a format currently in use by the local unit of government. These data conversion costs, unlike other costs that make up permit fees, may be included in the permit fee after the permit application process.

Subd. 7. Data on existing facilities. At the request of a local government unit, a right of way user shall provide existing data on its existing facilities within the public right of way in

the form maintained by the user at the time the request was made, if available.

Sec. 1.24. Location and Relocation of Facilities.

Subd. 1. Placement, Location, and Relocation. Placement, location, and relocation of facilities must comply with the Act, with other applicable law, and with Minn. Rules 7819.3100, 7819.5000, and 7819.5100, to the extent the rules do not limit authority otherwise available to cities and counties. By submitting a request for a permit the person recognizes they must conform to the existing ordinances and codes of other units of government related to underground placement regardless of how the application is written or permit granted.

Utility poles and guy anchors, and any other equipment, shall conform to NCHRP 350 standards for crash worthiness or must be located outside of applicable clear zones. Any installation that does not conform to Minnesota Department of Transportation clear zone standards must be approved by the Director and the facility owner shall indemnify and hold harmless the County.

Subd. 2. Corridors. The County may assign specific corridors within the Right of Way, or any particular segment thereof as may be necessary, as a best management practice for each type of Facility that is, or, pursuant to current technology, the County expects will someday be, located within the Right of Way. All Right of Way Permits issued by the County involving the installation or replacement of Facilities shall designate the proper corridor for the Facilities at issue. A typical cross section of the location for utilities may be on file at the Director's office. This section is not intended to establish "high density corridors".

Any Registrant who has Facilities in the Right of Way in a position at variance with the corridors established by the County shall, no later than at the time of the next reconstruction or excavation of the area where the Facilities are located, move the Facilities to the assigned position within the Right of Way, unless this requirement is waived by the County for good cause shown, upon consideration of such factors as the remaining economic life of the Facilities, public safety, customer Service needs and hardship to the Registrant.

Subd. 3. Nuisance. One year after the passage of this Chapter, any Facilities found in a Right of Way that have not been Registered shall be deemed to be a nuisance. The County may exercise any remedies or rights it has at law or in equity, including, but not limited to, abating the nuisance or taking possession of the Facilities and restoring the Right of Way to a useable condition and requiring payment to the County for the costs involved.

Subd. 4. Limitation of Space. To protect health, safety, and welfare or when necessary to protect the Right of Way and its current use, the County shall have the power to use best management practices to prohibit or limit the placement and location of new or additional Facilities within the Right of Way. In making such decisions, the County shall strive to the extent possible to accommodate all existing and potential users of the Right of Way, but shall be guided primarily by considerations of the public interest, the public's need for the particular Utility Service, the condition of the Right of Way, the time of year with respect to essential utilities, the protection of existing Facilities in the Right of Way, and future County plans for public improvements and development projects which have been determined to be in the public interest.

Subd. 5. Relocation of Facilities. A Registrant must promptly and at its own expense, with due regard for seasonal working conditions, permanently remove and relocate its Facilities in the Right of Way whenever the Director for good cause requests such removal and relocation, and shall restore the Right of Way consistent with PUC standards, local regulations and MnDOT standard specifications. The Director may make such request to prevent interference by the Company's Equipment or Facilities with (i) a present or future

County use of the Right of Way, (ii) a public improvement undertaken by the County, (iii) an economic development project in which the County has an interest or investment, (iv) when the public health, safety and welfare require it, or (v) when necessary to prevent interference with the safety and convenience of ordinary travel over the Right of Way.

(a) Relocation Notification Procedure: The Director shall notify the utility owner at least six (6) months in advance of the need to relocate existing facilities so the owner can plan the relocation. The Director shall provide a second notification to the owner one (1) month before the owner needs to begin the relocation. The utility owner shall begin relocation of the facilities within one (1) week of the second notification. All utilities shall be relocated within one (1) month. The Director may allow a different schedule if it does not interfere with the County's project. The utility owner shall diligently work to relocate the facilities within the above schedule.

In the event that emergency work by the County or by a municipality in the County right of way requires relocation of a utility, the notification requirements above are waived. The County and utility shall coordinate efforts to minimize delay.

(b) Delay to County Project: The Director shall notify the utility owner if the owner's progress will not meet the relocation schedule. If the owner does not take action to insure the relocation will be completed in accordance with the above schedule and the Director feels this delay will have an adverse impact to a county project, then the Director may hire a competent contractor to perform the relocation. In that event, the county may charge the utility owner all costs incurred to relocate the facility.

The county may charge the utility owner for all costs incurred and requested by a contractor working for the county who is delayed because the relocation is not completed in the scheduled timeframe and for all costs incurred by the county due to the delay.

Notwithstanding the foregoing, according to the PUC rules, a Person shall not be required to remove or relocate its Facilities from any Right of Way which has been vacated in favor of a non-governmental entity unless and until the reasonable costs thereof are first paid to the Person.

However, this does not exempt the utility company from paying for the value of any taking of said property by occupation without compensation.

Sec. 1.25. Pre-excavation Facilities Location.

In addition to complying with the requirements of Minn. Stat. § 216D.01-.09 ("One Call Excavation Notice System") before the start date of any Right of Way excavation, each Registrant who has Facilities or Equipment in the area to be excavated shall mark the horizontal and vertical placement of all said Facilities. Any Registrant whose Facilities are in the area of work shall notify and work closely with the excavation contractor to establish the exact location of its Facilities and the best procedure for excavation to protect the safety of workers and right of way users and other utility users. If the utility is not at the approved depth or location, it shall be exposed at the permittee's expense or by the county upon written notice to the permittee. The county may, upon said notice, locate said utility at the permittee's expense.

Sec. 1.26. Damage to Other Facilities.

When the County does work in the Right of Way and finds it necessary to maintain, support, or move a Registrant's Facilities to protect it, the Director shall notify the Local Representative as early as is reasonably possible. The costs associated therewith will be billed to that Registrant and must be paid within thirty (30) days from the date of billing. Each Registrant shall be responsible for the cost of repairing any Facilities in the Right of Way that it or its Facilities damages. When the permittee does damage to county facilities in the Right of Way, such as, but not limited to, culverts, road surfaces, curbs and gutters, or tile lines, they shall correct the damage immediately. If they do not, the county may make such repairs as necessary and charge all of the expenses of the repair to the permittee. The permittee shall pay for said repairs within 30 days of billing. Each Registrant shall be responsible for the cost of repairing any damage to the Facilities of another Registrant caused during the County's response to an Emergency occasioned by that Registrant's Facilities.

Sec. 1.27. Right of Way Vacation.

Reservation of Right. If the County vacates a right of way that contains the facilities of a registrant, the registrant's rights in the vacated right of way are governed by Minn. Rule 7819.1250 and other applicable laws.

Sec. 1.28. Indemnification and Liability.

By registering with the County, or by accepting a permit under this Chapter, a Registrant or Permittee agrees to defend and indemnify the county in accordance with the provisions of Minn. Rule 7819.1250.

All permits are granted subject to the ownership rights the County may have in the property involved and to the extent that state, federal local laws, rules and regulations allow and said permit is subject to all such laws and rules.

Sec. 1.29. Abandoned or Unusable Facilities.

Subd. 1. Discontinued Operations. A registrant who has determined to discontinue all or a portion of its operations in the county must provide information satisfactory to the county that the registrant's obligations for its facilities in the right of way under this chapter have been lawfully assumed by another registrant.

Subd. 2. Removal. Any registrant who has abandoned or unusable facilities in any right of way shall remove them from that right of way if required in conjunction with other right of way repair, excavation, or construction, unless the county waives this requirement.

Sec. 1.30. Appeal.

A Right of Way user that: (1) has been denied registration; (2) has been denied a permit; (3) has had permit revoked; or (4) believes that the fees imposed are invalid, may have the denial, revocation, or fee imposition reviewed, upon written request, by the County Board. The County Board shall act on a timely written request at its next regularly scheduled meeting. A decision by the County Board affirming the denial, revocation, or fee imposition will be in writing and supported by written findings establishing the reasonableness of the decision.

Sec. 1.31. Reservation of Regulatory and Police Powers.

A Permittee's or Registrant's rights are subject to the regulatory and police powers of the County to adopt and enforce general ordinances necessary to protect the health, safety and welfare of the public.

Sec. 1.32. Severability.

If any portion of this chapter is for any reason held invalid by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portions thereof. Nothing in this Chapter precludes the County from requiring a franchise agreement with the applicant, as allowed by law, in addition to requirements set forth herein.

Sec. 1.33. Penalty for Violation.

Violation of this ordinance shall result in the assessment of a penalty of $500 per occurrence per site per mile per day as long as may be applicable unless a penalty or fine is otherwise specifically designated in this ordinance.

ATTEST:

John "Jay" McLinden
County Administrator

By:
Dan Erhart, its Chairman

Minimum Control Measure 5
Post-Construction Stormwater Management

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APPENDICES

1. INTRODUCTION

1.1. Basis for the Standard Operating Procedures (SOPs)

The Minnesota Pollution Control Agency reissues their National Pollutant Discharge Elimination System (NPDES) General Permit (GP) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). The MS4 GP requires the Anoka County to develop written procedures for the purpose of eliminating pollutants associated with post-construction activity, including new development and redevelopment projects with land disturbance of greater than or equal to one acre, and projects that are less than one acre that are part of a common plan of development or sale.

This manual assists Anoka County in meeting the Stormwater Phase II regulations, by incorporating guidance on the following:

- Plan Review
- Training
- Inspections
- Long-term Operation and Maintenance

The Guidelines and Standard Operating Procedures Manual will help promote behavior to improve the water quality of the Anoka County's lakes, ponds, and creeks.

1.2. Objectives of the SOPs

This manual is intended to provide guidance on Post-Construction Stormwater Management:

- Provide guidance regarding plan review procedures.
- Provide guidance to municipalities for prioritizing where construction site inspections may need to occur on a more frequent basis.
- Provide guidance to municipal staff on what to look for during construction inspections.
- Provide guidance to County staff regarding the construction of post-construction stormwater BMPs to help ensure their longevity.
- Provide guidance to municipal staff regarding the construction of post-construction stormwater BMPs to help ensure their longevity.
- Provide guidance on how to enforce non-compliant construction sites.
- Provide guidance to municipal staff on proper procedures for BMP operation and maintenance.

2. PLAN REVIEW

Activities and Definition

Plans that are submitted to Anoka County for approval will have a review process to guarantee that post-construction stormwater standards are being met.

The County shall maintain the following post-construction stormwater management regulatory mechanisms that prohibits non-stormwater discharges into Anoka County's MS4, requires the use of green infrastructure, and prohibits infiltration in certain situations, and restricts it in others:

- Policies
- Written policies
- Anoka County's Development Review Manual

The approach to meet the performance standard for Volume, Total Suspended Solids (TSS), and Total Phosphorus (TP) required by the Permit is to retain a runoff volume equal to one-inch times the area of the proposed increase of impervious surfaces on-site.

The following requirements are incorporated into Anoka County's regulatory mechanism:

a. Require owners of construction activity to submit site plans with post-construction stormwater management BMPs designed with accepted engineering practices to the County for review and confirmation that regulatory mechanism(s) requirements have been met, prior to start of construction activity.

b. Volume reduction practices (e.g., infiltration or other) to retain the water quality volume on-site must be considered first when designing the permanent stormwater treatment system. This permit does not consider wet sedimentation basins and filtration systems to be volume reduction practices. If this permit prohibits infiltration, other volume reduction practices, a wet sedimentation basin, or filtration basin may be considered.

    1. For construction activity (excluding linear projects), the water quality volume must be calculated as one (1) inch times the sum of the new and the fully reconstructed impervious surface.

    2. For linear projects, the water quality volume must be calculated as the larger of one (1) inch times the new impervious surface or one-half (0.5) inch times the sum of the new and the fully reconstructed impervious surface.

    3. Volume reduction practices must be considered first.

4. Volume reduction practices are not required if the practices cannot be provided cost effectively.

5. If additional right-of-way, easements, or other permission cannot be obtained, owners of construction activity must maximize the treatment of the water quality volume prior to discharge from the MS4.

6. The General Permit does not consider wet sedimentation basins and filtration systems to be volume reduction practices.

7. For non-linear projects, where the water quality volume cannot cost effectively be treated on the site of the original construction activity, the County must identify, or may require owners of the construction activity to identify, locations where off-site treatment projects can be completed.

8. If the entire water quality volume is not addressed on the site of the original construction activity and the remaining water quality volume must be addressed through off-site treatment.

c. Infiltration systems must be prohibited when the system would be constructed in areas:

1. That receive discharges from vehicle fueling and maintenance areas, regardless of the amount of new and fully reconstructed impervious surface.

2. Where high levels of contaminants in soil or groundwater may be mobilized by the infiltrating stormwater. To make this determination, the owners and/or operators of construction activity must complete the MPCA's site screening assessment checklist, which is available in the Minnesota Stormwater Manual, or conduct their own assessment. The assessment must be retained with the site plans.

3. 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.

4. 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.

5. Of predominately Hydrologic Soil Group D (clay) soils.

6. In an Emergency Response Area (ERA) within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, Subp. 13, classified as high or very high vulnerability as defined by the Minnesota Department of Health.

7. In an ERA within a DWSMA classified as moderate vulnerability unless the County performs or approves a higher level of engineering review sufficient to provide a functioning treatment system and to prevent adverse impacts to groundwater.

8. Outside of an ERA within a DWSMA classified as high or very high vulnerability unless the County performs or approves a higher level of engineering review sufficient to provide a functioning treatment system and to prevent adverse impacts to groundwater.

9. Within 1,000 feet up-gradient or 100 feet down gradient of active karst features.

d. If the County receives payment from the owner of a construction activity for off-site treatment and the County must apply any such payment received to a public stormwater project.

e. Off-site treatment 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. Routine maintenance of structural stormwater BMPs already required by the General Permit cannot be used to meet this requirement.

f. Off-site treatment projects must be completed no later than 24 months after the start of the original construction activity. If the County determines more time is needed to complete the treatment project, the County must provide the reason(s) and schedule(s) for completing the project in the annual report.

g. The County's regulatory mechanism(s) must include the establishment of legal mechanism(s) between the County and owners of structural stormwater BMPs not owned or operated by the County. The legal mechanism(s) must include provisions that, at a minimum:

    1. Allow the County to conduct inspections of structural stormwater BMPs not owned or operated by the County, perform necessary maintenance, and assess costs for those structural stormwater BMPs when the County determines the owner of that structural stormwater BMP has not ensured proper function.

    2. Are designed to preserve the County 's right to ensure maintenance responsibility, for structural stormwater BMPs not owned or operated by the County when those responsibilities are legally transferred to another party.

    3. Are designed to protect/preserve structural stormwater BMPs. If structural stormwater BMPs change, causing decreased effectiveness, new, repaired, or improved structural stormwater BMPs must be implemented to provide equivalent treatment to the original BMP.

Process

a. Review Anoka County policies (Subdivisions and Zoning), Anoka County Comprehensive Plan, the Surface Water Management Plan, the MPCA Construction General Permit, and the MS4 post-construction stormwater standards.

b. Reviews of submitted plans, will utilize a checklist to ensure accuracy (Appendix A).

c. The County must ensure off-site treatment project areas are selected in the following order of preference:

    1. Locations that yield benefits to the same receiving water that receives runoff from the original construction activity.

    2. Locations within the same 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 County 's jurisdiction.

d. The County shall maintain a written or mapped inventory of structural stormwater BMPs not owned or operated by the County that meet all the following criteria:

    1. The structural stormwater BMP includes an executed legal mechanism(s) between the County and owners responsible for the long-term maintenance.

    2. The structural stormwater BMP was implemented on or after August 1, 2013.

Training

Anoka County shall ensure that individuals receive training commensurate with their responsibilities as they relate to the Post-Construction Stormwater Management program. The County shall ensure that previously trained individuals attend a refresher training every three (3) calendar years following the initial training.

3. LONG-TERM OPERATION AND MAINTENANCE

Activities and Definition

All BMPs installed for the purpose of meeting the post-construction stormwater management standard are required to develop maintenance agreements and maintenance plans that are recorded on the deed of the property. After the maintenance agreement is executed, the County is required to ensure the conditions for post-construction stormwater management continue to be met.

Preparation

Develop a reporting mechanism (i.e., worksheet, questionnaire, etc.) for owners of post-construction stormwater BMPs.

Process

a. Anoka County may conduct inspections of post-construction stormwater BMPs once during each MS4 permit cycle to determine if the system(s) are functioning as designed and permitted.

b. Once during each MS4 permit cycle request applicants to fill out and return the questionnaire.

c. If any applicants do not return their questionnaire to the County, the County may inspect the post-construction stormwater BMP on behalf of the applicant and bill the property owner for administrative costs incurred.

d. Notify all owners of post-construction stormwater BMPs with deficiencies and require repair within 4 months.

e. If any owners of post-construction stormwater BMPs with deficiencies are not repaired within 4 months of notification, the County may complete the repairs and bill the property owner for such repairs.

Enforcement Response Procedure

Anoka County shall maintain written ERPs to compel compliance with the regulatory mechanism(s) required in Section 20. The County shall specify the Assistant County Engineer as the position title of responsible person(s) for conducting enforcement along with the timeframe. The following enforcement tools include:

a. Verbal warning
b. Notice of violation

Documentation

Documentation as related to training:

a. Document general subject matter covered

b. Names and departments of individuals in attendance

c. The date of each event

Documentation as related to the County's site review process:

a. Supporting documentation used to determine compliance, including any calculations for the permanent stormwater treatment system.

b. The water quality volume that will be treated through volume reduction practices (e.g., infiltration or other) compared to the total water quality volume required to be treated.

c. Documentation associated with off-site treatment projects authorized by the County, including rationale to support the location of permanent stormwater treatment projects in accordance with items 20.10 and 20.11.

d. Payments received and used.

e. All legal mechanisms drafted, including date(s) of the agreement(s) and name(s) of all responsible parties involved.

f. Obtain as-built plans for all public and private post-construction stormwater BMPs that are installed within the County.

g. Obtain a long-term maintenance agreement for private structural stormwater BMPs.

h. Obtain a site plan review procedures to ensure the post-construction stormwater management is in accordance with the regulatory mechanism.

i. Keep copies of returned questionnaires and inspection reports on file for at least three years, should the County be required to perform maintenance for non- compliance.

Documentation as related to the enforcement conducted pursuant to Anoka County's ERPs:

a. The name of the person responsible for violating the terms and conditions of the County's regulatory mechanism(s).
b. The date(s) and location(s) of the observed violation(s).
c. A description of the violation(s) Corrective action(s) issued.
d. Corrective action(s) issued.

e. Referrals to other regulatory organizations.
f. The date(s) violation(s) are resolved.

Anoka County shall conduct an annual assessment of the Post-Construction Stormwater Management program to evaluate program compliance, the status of achieving the measurable requirements (activities that must be documented or tracked as applicable to the MCM (e.g., inventory, trainings, site plan reviews, inspections, enforcement, etc.)) in Section 20 of the MS4 General Permit and determine how the program might be improved. The County shall perform the annual assessment prior to completion of each annual report and document any modifications made to the program because of the annual assessment.

COUNTY OF ANOKA
ENGINEERING STANDARDS FOR STORM WATER
TREATMENT FACILITIES

The following are the maintenance requirements required for the proper operation of water quality treatment structures provided by the *Minnesota Stormwater Manual* (MPCA, November 2005) and the *Minnesota BMP Manual* (Metropolitan Council, July 2001):

Pond Maintenance Requirements

1. Annual inspection, maintenance reporting and certification by a professional engineer (Provided by Owner). Information must be submitted to the County annually.

2. Excavate pond to original design capacity when one half (1/2) of the wet volume of the pond is lost due to sediment deposition.

3. Remove floatable debris in and around the pond area including, but not limited to: oils, gases, debris and other pollutants.

4. Maintain landscape adjacent to the facility per original design, including but not limited to: maintenance of the buffer strip and other plant materials as per original plan design.

5. Maintenance of all erosion control measures including but not limited to: rip rap storm sewer outlets, catch basin inlets, etc.

Environnemental Manhole Maintenance Requirements

1. Annual inspection, maintenance reporting and certification by a professional engineer (Provided by Owner). Information must be submitted to the County annually.

2. Maintenance should be performed once the sediment or oil depth exceeds the established requirements recommended by the manufacturer.

3. Maintenance should occur immediately after a spill takes place. Appropriate regulatory agencies should also be notified in the event of a spill.

4. Disposal of materials shall be in accordance with local, state and federal requirements as applicable.

Rain Garden Maintenance Requirements

1. Inlet and Overflow Spillway – Remove any sediment build-up or blockage and correct any erosion.

2. Vegetation
    a. Maintain at least 80% surface area coverage of plants approved per plan.
    b. Removal of invasive plants and undesirable woody vegetation.
    c. Removal of dried, dead and diseased vegetation.
    d. Re-mulch void or disturbed/exposed areas.

3. Annual inspection and maintenance efforts must be documented and submitted to the County.

Filtration Basin Maintenance Requirements

1. Sweep sediment from parking lot 4 times per year

2. Ongoing and as needed:
    a. Prune and weed to maintain appearance
    b. Remove trash and debris
    c. Maintain at least 80% surface area coverage of plants approved per plan.
    d. Removal of invasive plants and undesirable woody vegetation.
    e. Removal of dried, dead and diseased vegetation.
    f. Re-mulch void or disturbed/exposed areas.

3. Semi-annually:
    a. Remove sediment from inflow points (off-line systems)
    b. Inspect aggregate filter system and clean as needed
    c. Shrubs should be inspected to evaluate health. Remove dead and diseased vegetation.

4. Annually:
    a. Inspect and remove any sediment and debris build-up in pre-treatment areas
    b. Inspect inflow points and bioretention surface for build up of road sand associated with spring melt period. Remove and replant as necessary.

5. 2 to 3 years:
    a. Test pH of planting soils. If pH is below 5.2, add limestone. If pH is 7.0 to 8.0, add iron sulfate plus sulfur.

6. Annual inspection and maintenance efforts must be documented and submitted to the County.

COUNTY OF ANOKA
STATE OF MINNESOTA

STORMWATER FACILITIES MAINTENANCE AGREEMENT WITH ACCESS RIGHTS AND COVENANTS

(Insert Project Reference Numbers)

This AGREEMENT, made and entered into this ___ day of _____, 20___, for the maintenance and repair of certain Stormwater Management Facilities is entered into between _____ (hereinafter referred to as "OWNER") and the County of Anoka (hereinafter referred to as "COUNTY") for the benefit of the COUNTY, the OWNER, the successors in interest to the COUNTY or the OWNER, and the public generally.

WITNESSETH

WHEREAS, the undersigned is the owner of that certain real property lying and being in the _____ Land Lot/District, _____ identified as [Tax Map/Parcel Identification Number] _____ and being more particularly described by deed as recorded in the land records of the County of Anoka, Minnesota, Deed Book _____ Page ____, hereinafter called the "Property".

WHEREAS, the undersigned is proceeding to build on and develop the property; and has submitted the Site Plan/Subdivision Plan known as _____, (Name of Plan/Development) hereinafter called the "Plan", which is expressly made a part hereof, as approved or to be approved by the County, provides for detention of stormwater within the confines of the property; and

WHEREAS, the County and the undersigned, its successors and assigns, including any homeowners association, (hereinafter the "Landowner") agree that the health, safety, and welfare of the residents of the County of Anoka, Minnesota, requires that on-site stormwater management facilities be constructed and maintained on the Property; and

WHEREAS, the County requires that on-site stormwater management facilities as shown on the Plan (the "Facilities") be constructed and adequately maintained by the Landowner.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

(1) When a new drainage control facility is installed, the party having the facility installed shall obtain a copy of the as-built plans from the County of Anoka Engineering Department. Responsible parties shall make records of the installation and of all maintenance and repair, and shall retain the records for at least ten years. These records shall be made available to the County of Anoka's County Engineer during Inspection of the facility and at other reasonable times upon request of the County Engineer.

(2) The following operational maintenance activities shall be performed on all permitted systems on a regular basis or as needed:

a) Removal of trash and debris,
b) Inspection of inlets and outlets,
c) Removal of sediments when the storage volume or conveyance capacity of the stormwater management system is below design levels
d) Ensure systems designed for infiltration are drawing down within 48 hours, and
e) Stabilization and restoration of eroded areas.

(3) Specific operational maintenance activities are required, depending on the type of permitted system, in addition to the practices listed in subsection (2), above.

a) Retention, swale and underdrain systems shall include provisions for:
    1. Mowing and removal of grass clippings, and
    2. Aeration, tilling, or replacement of topsoil as needed to restore the percolation capability of the system. If tilling or replacement of the topsoil is utilized, vegetation must be established on the disturbed surfaces.
b) Exfiltration systems shall include provisions for removal of sediment and debris from pretreatment or sediment collection systems.
c) Wet detention systems shall include provisions for operational maintenance of the littoral zone. Replanting shall be required if the percentage of vegetative cover falls below the permitted level. It is recommended that native vegetation be maintained in the littoral zone as part of the system's operation and maintenance plan. Undesirable species such as cattail and exotic plants should be controlled if they become a nuisance.
d) Dry detention systems shall include provisions for mowing and removal of grass clippings.

(4) If the system is not functioning as designed and permitted, operational maintenance must be performed immediately to restore the system. If operational maintenance measures are insufficient to enable the system to meet the design and performance standards of this chapter, the permittee must either replace the system or construct an alternative design.

(5) In the event the Landowner fails to maintain the Facilities in good working condition acceptable to the County, the County will no longer provide credits towards a reduction in the landowners' stormwater utility fee. The County may enter upon the Property and take such steps as are necessary to correct deficiencies identified in the inspection report and to charge the costs of such repairs to the Landowner. This provision shall not be construed to allow the County to erect any structure of permanent nature on the land of the Landowner outside of the easement for the stormwater management facilities. It is expressly understood and agreed that the County is under no obligation to routinely maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the County. The Landowner grants to the County, its authorized agents and employees, a non-exclusive, perpetual easement over, across, under and through the Property for such purposes.

IN WITNESS THEREOF, the parties hereto acting through their duly authorized agents have caused this Agreement to be signed, sealed and delivered:

(Insert Company/Corporation/Partnership Name) [SEAL]

_____

By: (Type Name and Title)

The foregoing Agreement was acknowledged before me
this ____ day of _____, 20___, by

_____

Unofficial Witness

_____

NOTARY PUBLIC

My Commission Expires: _____

COUNTY OF ANOKA, MINNESOTA

Minimum Control Measure 6
Pollution Prevention and Good Housekeeping Practices for Municipal Facilities

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APPENDICES

1. INTRODUCTION

1.1. Basis for the Standard Operating Procedures (SOPs)

The Minnesota Pollution Control Agency reissued their National Pollutant Discharge Elimination System (NPDES) General Permit (GP) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). The MS4 GP requires Anoka County to alter their own actions as well as work with other governmental agencies to help ensure a reduction in the amount and type of pollution that:

- Collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways.
- Results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems.

This SOP manual will assist Anoka County in using targeted best management practices that are intended on reducing the discharge of pollutants from municipal activities.

1.2. Objectives of the SOPs

This manual is intended to provide guidance on Good Housekeeping Practices for Municipal Operations as follows:

- Provide BMPs used for municipal activities.
- Provide BMPs to prevent or reduce the stormwater impacts from the facilities documented on the Faculty Inventory.
- Provide BMPs to protect Source Water Protection Areas, such as Drinking Water Supply Management Areas and source water protection areas for surface intakes.
- Stormwater pond assessment procedures and schedule to evaluate the effectiveness of total suspended solids (TSS) and total phosphorus (TP) removal of municipally owned/operated ponds.
- Provide methods for employing spill prevention and response.
- Provide tools for documenting inspections of municipal facilities.

1.3. Training

Anoka County will provide training and information on an annual basis to employees involved in the inspection and maintenance of Anoka County's storm drainage system, illicit discharge detection, construction site maintenance, and general municipal good housekeeping. At a minimum, training and information will cover:

- Inspection/maintenance procedures.
- Reasons for inspection/maintenance.
- Erosion and sediment control inspection/maintenance practices.
- Good housekeeping practices associated with municipal activities.

- Daily, intermediate, and long-term preventative inspection/maintenance.
- Major/minor repairs.
- Vegetation inspection.
- Stormwater basins versus wetlands.
- Spills or illegal dumping into the storm sewer system.
- Public stormwater basins versus private stormwater basins.
- Stormwater basins with vegetation requiring additional inspection/maintenance.

Anoka County's training program shall include:

- The importance of protecting water quality.
- The requirements of the permit relevant to the responsibilities of the individual.
- A schedule that establishes initial training for individuals, including new and/or seasonal employees, and recurring training intervals to address changes in procedures, practices, techniques, or requirements.

Anoka County's winter maintenance training program shall include:

- The importance of protecting water quality.
- BMPs to minimize the use of deicers (e.g., proper calibration of equipment and benefits of pretreatment, pre-wetting, and anti-icing).
- Tools and resources to assist in winter maintenance (e.g., deicing application rate guidelines, calibration charts, Smart Salting Assessment Tool).

1.4. Documentation

Maintain a written or mapped inventory of Anoka County's owned/operated facilities that contribute pollutants to stormwater discharges:

1. Equipment storage and maintenance
2. Public works yard(s)
3. Salt storage
4. Vehicle storage and maintenance (e.g., fueling and washing) yard(s)
5. Materials storage yard(s)

2. POLLUTION PREVENTION

2.1. Dumpsters/Garbage Storage

Activities and Definition

Potential for pollutants can occur if proper garbage management is not in place. An appropriate number of dumpsters should be located throughout the facility to provide enough storage for daily activities. In addition, facility dumpsters are to be marked for proper materials disposal.

Preparation

a. Train employees on proper trash disposal.
b. Locate dumpsters and trash cans in convenient, easily observable areas.
c. Provide properly labeled recycling bins to reduce the amount of garbage disposed.
d. Where applicable install berms, curbing, or vegetation strips around storage areas to control water entering/leaving storage areas.
e. Whenever possible store garbage containers beneath a covered structure or inside to prevent contact with stormwater.

Process

a. Inspect garbage bins for leaks regularly and have repairs made immediately by responsible party.
b. Request/use dumpsters and trash cans with lids and without drain holes.
c. Locate dumpsters on a flat, hard surface that does not slope or drain directly into the storm drain system.

Clean-up/Follow-up

a. Keep areas around dumpsters clean of all garbage.
b. Have garbage bins emptied regularly to keep from overfilling.
c. Wash out bins or dumpsters as needed to keep odors from becoming a problem.

Documentation

a. Document training of employees.

2.2. Parking Lot Maintenance

Activities and Definition

Parking Lots can potentially generate increased pollutant loads to the stormwater system from run-off. A well-maintained parking surface can help to reduce some of those pollutant concerns.

Preparation

a. Conduct regular employee training to reinforce proper housekeeping.
b. Restrict parking in areas to be swept prior to and during sweeping using regulations as necessary.
c. Perform regular maintenance and services in accordance with the recommended vehicle maintenance schedule on sweepers to increase and maintain efficiency.

Process

a. Sweep parking areas, at a minimum of twice annually, or as needed, or as directed by the County's responsible official.
b. Hand sweep sections of gutter if soil and debris accumulate.
c. Pick-up litter as required to keep parking areas clean and orderly.

Clean-up/Follow-up

a. Dispose of sweepings properly (appropriate facility).
b. Street sweepers to be cleaned out in a manner as instructed by the manufacturer and in a location that swept materials cannot be introduced into a storm drain.
c. Swept materials will not be stored in locations where stormwater could transport fines into the storm drain system.

Documentation

a. Keep accurate logs to track swept parking areas and approximate quantities.
b. Document training of employees.

2.3. Parks – Chemical Application Pesticides, Herbicides, Fertilizers

Activities and Definition

A pivotal part of the beautification of Anoka County is a great parks system. The health and beauty of lawns and natural areas take the application of some chemicals and fertilizers.

Preparation

a. Ensure seasonal and full-time County staff are adequately trained in proper use and application of fertilizers and pesticides for maintenance of County lands.
b. Make sure your state Chemical Handling Certification is complete and up to date before handling any chemicals.
c. Calibrate fertilizer and pesticide application equipment to avoid excessive application.
d. Use pesticides only if there is an actual pest problem and periodically test soils for determining proper fertilizer use.
e. Time and apply the application of fertilizers, herbicides, or pesticides to coincide with the manufacturer's recommendations for best results ("Read the Label").
f. Know the weather conditions. Do not use pesticides if rain is expected. Apply pesticides only when wind speeds are low (less than 5 mph).

Process

a. Always follow the manufacturer's recommendations for mixing, application, and disposal ("Read the Label").

b. Do not mix or prepare pesticides for application near storm drains. Preferably mix pesticides inside a protected area with impervious secondary containment (preferably indoors) so that spills or leaks will not contact soils.
c. Employ techniques to minimize off-target application (e.g., spray drift, over broadcasting.) of pesticides and fertilizers.

Clean-up/Follow-up

a. Sweep pavements or sidewalks where fertilizers or other solid chemicals have fallen, back onto grassy areas before applying irrigation water.
b. Triple rinse containers and use rinse water as product. Dispose of unused pesticide as hazardous waste.
c. Always follow all federal and state regulations governing use, storage and disposal of fertilizers, herbicides or pesticides and their containers ("Read the Label").

Documentation

a. Keep copies of MSD sheets for all pesticides, fertilizers and other hazardous products used.
b. Record fertilizing and pesticide application activities, including date, individual who did the application, amount of product used, and approximate area covered.

2.4. Parks – Cleaning Equipment

Activities and Definition

There are many benefits to taking proper care of Anoka County's equipment. Prolonging the life of the equipment by taking the time to maintain critical parts is an essential part of the Parks departments daily activities.

Preparation

a. Review process with all Parks employees.

Process

a. Wipe off dirt, dust, and fluids with disposable towel.
b. Wash equipment in approved wash station.

Clean-up/Follow-up

a. Dispose of towels in proper trash receptacle
b. Sweep floor and dispose of debris.

Documentation

a. NA

2.5. Parks – Mowing and Trimming

Activities and Definition

Regular mowing and trimming activities have potential to deposit materials onto hard surfaces. Care should be taken to ensure mowing or trimming refuse is disposed of properly.

Preparation

a. Process overview with employees.
b. Check the oil and fuel levels of the mowers and other equipment. Fill in proper areas if needed.

Process

a. Install temporary catch basin protection on potentially affected basins.
b. Put on eye and hearing protection.
c. Mow and trim the lawn.
d. Sweep or blow clippings to grass areas.
e. Remove inlet protection if used.

Clean-up/Follow-up

a. Mowers are to be scraped and brushed at designated location.
    1. Dry spoils are dry swept and disposed of properly
b. Wash equipment in approved wash station.

Documentation

a. Document and observed deficiencies for correction or repair.

2.6. Parks – Open Space Management

Activities and Definition

Open space provides great value to the park system that go beyond ball fields. This includes stormwater retention and potential flood relief.

Preparation

a. Provide a regular observation and maintenance of parks, golf courses, and other public open spaces.
b. Identify public open spaces that are used for stormwater detention and verify that detention areas are included on the storm drain system mapping, inspection schedules, and maintenance schedules.

Process

a. Ensure that any storm drain or drainage system components on the property are properly maintained.
b. Avoid placing bark mulch (or other floatable landscaping materials) in stormwater detention areas or other areas where stormwater runoff can carry the mulch into the storm drainage system.
c. Follow all SOPs related to irrigation, mowing, landscaping, and pet waste management.

Clean-up/Follow-up

a. Keep all outdoor work areas neat and tidy. Clean by sweeping instead of washing whenever possible. If areas must be washed, ensure that wash water will enter a landscaped area rather than the storm drain. Do not use soap for outdoor washing.
b. Pick up trash on a regular basis.

Documentation

a. Document and observed deficiencies for correction or repair.

2.7. Parks – Pet Waste

Activities and Definition

Pet waste has the potential to be a contributor to downstream degradation if not maintained and properly disposed of.

Preparation

a. Adopt and enforce ordinances that require pet owners to clean up pet wastes and use leashes in public areas. If public off-leash areas are designated, make sure they are clearly defined. Avoid designating public off-leash areas near streams and water bodies.
b. Whenever practical and cost effective, install dispensers for pet waste bags and provide disposal containers at locations such as trail heads or parks where pet

waste has been a problem. Provide signs with instructions for proper cleanup and disposal.

Process

a. Check parks and trails for pet waste as needed.
b. Check public open space for pet waste prior to mowing and watering.
c. Provide ordinance enforcement as needed.

Clean up / follow-up

a. Remove all pet waste; provide temporary storage in a covered waste container and dispose of properly. Preferred method of disposal is at a solid waste disposal facility.

Documentation

a. Document problem areas for possible increased enforcement and/or public education signs.

2.8. Parks – Planting Vegetation (Starters)

Activities and Definition

Vegetation is a key component of establishing healthy ecosystems that hold water and nutrients on site.

Preparation

a. Call the appropriate numbers for location of utilities.
b. Decide where any spoils will be taken.

Process

a. Dig holes; place spoils near the hole where they may easily be placed back around the roots. Avoid placing spoils into the gutter system.
b. Bring each plant near the edge of the hole dug for it.
c. Check the depth of the hole and adjust the depth if necessary. The depth of the hole for a tree should be as deep as the root ball, so that the top of the root ball is level with the top of the hole.
d. Carefully remove pot or burlap
e. Place the plant in the hole
f. Backfill the hole with existing spoils, compost, and a litter fertilizer if desired. Do not use excessive amendments.
g. Water the plant.

h. Stake the plant if necessary to stabilize it.

Clean-up/Follow-up

a. Remove any extra spoils into truck or trailer. Place the spoils on a tarp if there is likelihood that some of the dirt would be lost through openings in the bed.
b. Sweep dirt from surrounding pavement(s) into the planter area.
c. Transport spoils to their designated fill or disposal area.

Documentation

a. N/A

2.9. Parks – Planting Vegetation (Seeds)

Activities and Definition

Vegetation is a key component of establishing healthy ecosystems that hold water and nutrients on site

Preparation

a. Call the appropriate numbers for location of utilities.
b. Decide where any spoils will be taken.
c. Decide on the application rate, method, water source, and ensure adequate materials are on hand.
d. Grade and prepare soil to receive the seed. Place any extra soil in a convenient location to collect.

Process

a. Place the seed and any cover suing the pre-determined application method (and rate).
b. Lightly moisten the seed.

Clean-up/Follow-up

a. Remove any extra spoils into truck or trailer. Place the spoils on a tarp if there is likelihood that some of the dirt would be lost through openings in the bed.
b. Sweep dirt from surrounding pavement(s) into the planter area.
c. Transport spoils to their designated fill or disposal area.

Documentation

a. NA

2.10. Parks – Transporting Equipment

Activities and Definition

Equipment Transportation is a pivotal part of the daily activities that occurs daily.

Preparation

a. Determine equipment needed for transport and method (trailer, truck bed) needed to transport equipment.
b. Conduct pre-trip inspection of equipment.

Process

a. Load and secure equipment on trailer or truck.
b. Load and secure fuel containers for equipment usage.

Clean-up/Follow-up

a. Off load equipment.
b. Store equipment and trailer in proper location.
c. Conduct post-trip inspection of equipment.
d. Wash equipment if needed, according to the written procedure for Cleaning Equipment.

Documentation

a. Pre-trip and post-trip inspection report.

2.11. Streets/Storm Drain – Catch Basin Cleaning

Activities and Definition

Catch Basin Cleaning needs to be completed on a regular basis to insure the functionality of the storm sewer system.

Preparation

a. Clean sediment and trash off grate.
b. Do visual inspection on outside of grate.
c. Make sure nothing needs to be replaced.
d. Do inside visual inspection to see what needs to be cleaned.

Process

a. Clean using a high-powered vacuum truck to start sucking out standing water and sediment.
b. Use a high-pressure washer to clean any remaining material out of catch basin, while capturing the slurry with the vacuum.
c. After catch basin is clean, send the rodder of the vacuum truck downstream to clean pipe and pull back sediment that might have gotten downstream of pipe.
d. Move truck downstream of pipe to next catch basin.

Clean-up/Follow-up

a. When vacuum truck is full of sediment, take it to the designated location to dump all the sediment out of truck into a drying bed.
b. When it evaporates, clean it up with a backhoe/skid loader, put it into dump truck and take to permanent disposal site (landfill).

Documentation

a. Keep logs of number of catch basins cleaned.
b. Record the amount of waste collected.
c. Keep any notes or comments of any problems.

2.12. Streets/Storm Drain – Creek Management

Activities and Definition

Storm drains, streets, and creeks are gateways that allow pollutants in stormwater to flow untreated from local streets to lakes, rivers, and streams. Residual oil, grease, solids, antifreeze, cigarette butts, yard waste, plastic and other wastes found on roads, parking lots and driveways pollute downstream waters by increasing phosphorus levels, reducing oxygen levels, and ultimately impairing aquatic habitat for fish and other organisms as well as drinking water sources.

Preparation

a. Monitor streams on a regular basis (Annually)
b. Check culverts and crossings after every storm.
c. Maintain access to stream channels wherever possible.
d. Identify areas requiring maintenance.
e. Determine what manpower or equipment will be required.
f. Identify access and easements to area requiring maintenance.
g. Determine method of maintenance that will be least damaging to the channel.
h. Obtain stream alteration permit.

Process

a. Remove unwanted material (debris, branches, soil) from the creek channel and place it in a truck to be hauled away.

Clean up / follow-up

a. Stabilize all disturbed soils.
b. Remove all tracking from paved surfaces near maintenance site, if applicable.
c. Haul all debris or sediment removed from area to approved dumping site.

Documentation

a. Keep log of actions performed including date and individuals involved.
b. Record the number of materials removed or imported.
c. Keep any notes or comments of any problems.
d. Use "before" and "after" photographs to document activities as applicable.

2.13. Streets/Storm Drain – Ditch Management

Activities and Definition

Storm drains are gateways that allow pollutants in stormwater to flow untreated from local streets to lakes, rivers, and streams. Residual oil, grease, solids, antifreeze, cigarette butts, yard waste, plastic and other wastes found on roads, parking lots and driveways pollute downstream waters by increasing phosphorus levels, reducing oxygen levels, and ultimately impairing aquatic habitat for fish and other organisms as well as drinking water sources.

Preparation

a. Monitor ditches on a regular basis (Annually)
b. Maintain access to ditch channels wherever possible.
c. Contact affected property owners and utility owners.

Process

a. Identify areas requiring maintenance.
b. Determine what manpower or equipment will be required.
c. Identify access and easements to area requiring maintenance.
d. Determine method of maintenance that will be least damaging to the channel and adjacent properties or utilities.

Clean-up/Follow-up

a. Stabilize all disturbed soils.
b. Remove all tracking from paved surfaces near maintenance site, if applicable.

c. Haul all debris or sediment removed from area to approved dumping site.
d. Prior to the expiration date of the General Permit, the County must conduct at least one inspection of all ponds and outfalls (excluding underground outfalls) to determine structural integrity, proper function, and maintenance needs.
e. The County must determine if repair, replacement, or maintenance measures are necessary to ensure the structural integrity and proper function of structural stormwater BMPs and outfalls.
f. The County must complete necessary maintenance as soon as possible. If the County determines necessary maintenance cannot be completed within one year of discovery, the County must document a schedule(s) for completing the maintenance.

Documentation

a. Keep log of actions performed including date and individuals involved.
b. Record the number of materials removed or imported.
c. Keep any notes or comments of any problems.
d. Use "before" and "after" photographs to document activities as applicable.

2.14. Streets/Storm Drain – Overlays and Patching

Activities and Definition

Pollutants collect on surfaces in between storm events because of atmospheric deposition, vehicle emissions, winter road maintenance, construction site debris, trash, road wear and tear. Overlays and patching are a part of the maintenance of these surfaces that help prolong the life of the roadway.

Preparation

a. Measure and mark locations of manholes and valves on the curb
b. Apply temporary covers to manholes and catch basins to prevent oil and materials from getting inside of them.
c. Cracks should be properly sealed. Alligator cracks and potholes should be removed and patched. Rutting should be milled.
d. Surface should be clean and dry.
e. Uniform tack coat applied and cured prior to placement of overlay.
f. If milling is required, install inlet protection as needed.

Process

a. Check hot asphalt mix for proper temperature, percentage asphalt, gradation, air voids, and any other agency requirements.
b. Raise manhole lids and valves to elevation of new asphalt surface with riser rings.
c. Surface texture should be uniform, no tearing or scuffing.

d. Rolling should be done to achieve proper in-place air void specification.

Clean up / follow-up

a. Covering should be removed as soon as the threat of imported materials entering the system is reduced and prior to a storm event.
b. After pavement has cooled, sweep gutters to remove loose aggregate.

Documentation

a. Record location and date on the maintenance database and map.

2.15. Streets/Storm Drain – Crack Seal

Activities and Definition

Pollutants collect on surfaces in between storm events because of atmospheric deposition, vehicle emissions, winter road maintenance, construction site debris, trash, road wear and tear. Crack sealing is a part of the maintenance of these surfaces that help prolong the life of the roadway.

Preparation

a. Apply temporary covers to manholes and catch basins to prevent oil and materials from getting inside of them.
b. Remove weeds from the road.
c. Air-blast the cracks to remove sediments from the crack to allow for proper adhesion.
d. Ensure that surface is clean and dry.

Process

a. Proper temperature of material should be maintained.
b. Sufficient material is applied to form the specified configuration.

Clean-up/Follow-up

a. Excessive sealant application or spills are removed.
b. Sweep all loose debris from the pavement and dispose of it in the local landfill.

Documentation

a. Record location and date on the maintenance database and map.

2.16. Streets/Storm Drain – Shouldering and Mowing

Activities and Definition

Pollutants collect on surfaces in between storm events because of atmospheric deposition, vehicle emissions, winter road maintenance, construction site debris, trash, road wear and tear, and litter from adjacent lawn maintenance (grass clippings). The shoulders of the road should be properly maintained to ensure infiltration and other techniques for stormwater run-off are working with the most efficiency.

Preparation

a. Set up temporary traffic control devices

Process

a. Place import material as needed and perform grading to achieve proper drainage.
b. Mulch clippings to help reduce the amount of supplemental fertilizer required.

Clean up / follow-up

a. Clean any loose material off asphalt or gutter.

Documentation

a. Record location and date on the maintenance database and map.

2.17. Streets/Storm Drain – Secondary Road Maintenance

Activities and Definition

Plans that are submitted to Anoka County for approval will have a review process to guarantee that erosion and sediment control standards are being met.

Preparation

a. Determine length amount and type of road base or gravel that will be needed.
b. Determine proper equipment to be used and or any safety hazards.
c. Design proper drainage: slopes, berms, etc.

Process

a. Have truck drivers follow a designated route for hauling in the soil (See SOP for transporting soil and gravel).
b. If soils are too dry to achieve compaction, loosen surface material and moisture condition.

c. Smooth or grade soil with the desired crown or cross-slope.
d. Compact soil.

Clean up/Follow-up

a. Replace filter fabric with washed rock (if necessary) on monthly maintenance.
b. Clean up equipment according to the SOP for Cleaning Equipment
c. Clean up any debris on traveled roads and dispose of it in the landfill.

Documentation

a. Fill out daily activity report in logbook or journal. Include date, time, personnel, and location.

2.18. Streets/Storm Drain – Concrete Work

Activities and Definition

The use of concrete is a common practice for BMP maintenance, proper management of those materials is critical for pollution prevention.

Preparation

a. Train employees and contractors in proper concrete waste management.
b. Store dry and wet materials under cover, away from drainage areas.
c. Remove any damaged concrete that may need to be replaced.
d. Prepare and compact sub-base.
e. Set forms and place any reinforcing steel that may be required.
f. Determine how much new concrete will be needed.
g. Locate or construct approved concrete washout facility.

Process

a. Install inlet protection as needed.
b. Avoid mixing excess amounts of fresh concrete on-site.
c. Moisten sub-base just prior to placing new concrete. This helps keep the soil from wicking moisture out of the concrete into the ground.
d. Place new concrete in forms.
e. Consolidate new concrete.
f. Screed off surface.
g. Let concrete obtain its initial set.
h. Apply appropriate surface finish.
i. Remove forms when concrete will not slump.

Clean-up/Follow-up

a. Perform washout of concrete trucks and equipment in designated areas only.
b. Do not washout concrete trucks or equipment into storm drains, open ditches, streets, or streams.
c. Cement and concrete dust from grinding activities is swept up and removed from the site.
d. Remove dirt or debris from street and gutter.
e. The County must determine if repair, replacement, or maintenance measures are necessary to ensure the structural integrity and proper function of structural stormwater BMPs and outfalls.
f. The County must complete necessary maintenance as soon as possible. If the County determines necessary maintenance cannot be completed within one year of discovery, the County must document a schedule(s) for completing the maintenance.
g. Inspect and ensure maintenance structural stormwater BMPs annually (excluding stormwater ponds, which are under a separate schedule below) each calendar year to determine structural integrity, proper function, and maintenance needs unless the County determines either of the following conditions apply:
    1. Complaints received or patterns of maintenance indicate a greater frequency is necessary; or
    2. Maintenance or sediment removal is not required after completion of the first two calendar year inspections; in which case the County may reduce the frequency of inspections to once every two (2) calendar years.

Documentation

The County shall document the following information associated with the operations and maintenance program:

a. Date(s) and description of findings, including whether an illicit discharge is detected, for all inspections conducted.
b. Any adjustments to inspection frequency.
c. Date(s) and a description of maintenance conducted because of inspection findings, including whether an illicit discharge is detected.
d. Schedule(s) for maintenance of structural stormwater BMPs and outfalls.
e. Stormwater management training events, including general subject matter covered, names and departments of individuals in attendance, and date of each event.

2.19. Streets/Storm Drain – Garbage Storage

Activities and Definition

Illegal dumping of non-hazardous household waste and improper dumping of yard waste in streets, storm drains, wetlands, lakes, and other water bodies pollutes surface waters. Non-hazardous household waste includes items such as tires, furniture, common household appliances and other bulk items. Yard waste includes any organic debris such as grass clippings, leaves, and tree branches.

Preparation

a. Locate dumpsters and trash cans with lids in convenient, easily observable areas.
b. Provide properly labeled recycling bins to reduce the amount of garbage disposed.
c. Provide training to employees to prevent improper disposal of general trash.

Process

a. Inspect garbage bins for leaks regularly, and have repairs made immediately by responsible party.
b. Locate dumpsters on a flat, impervious surface that does not slope or drain directly into the storm drain system.
c. Install berms, curbing or vegetation strips around storage areas to control water entering/leaving storage areas.
d. Keep lids closed when not actively filling dumpster.

Clean-up/Follow-up

a. Keep areas around dumpsters clean of all garbage.
b. Have garbage bins emptied as often as needed to keep from overfilling.
c. Wash out bins or dumpsters as needed to keep odors from becoming a problem. Wash out in properly designated areas only.

Documentation

a. N/A

2.20. Streets/Storm Drain – Snow Removal and De-icing

Activities and Definition

The concentration of chloride is increasing in our surface and ground water largely due to stormwater runoff from road salt storage piles, areas of excessive application, or simply from years of repeated application since chloride does not degrade in soil and water.

Chloride in road salt and road salt additives (e.g., ferrocyanide for anti-caking) can create toxic conditions for fish, insects, and vegetation.

Preparation

a. Store de-icing material under a covered impervious storage area indoors or in an area where water coming off the de-icing materials is collected and delivered to the sanitary sewer or reused as salt brine in order to implement practices to reduce exposure when transferring material from salt storage areas (e.g., sweeping, diversions, and/or containment).
b. Slope loading area away from storm drain inlets.
c. Design drainage from loading area to collect runoff before entering stormwater system.
d. Washout vehicles (if necessary) in approved washout area before preparing them for snow removal.
e. Calibrate spreaders to minimize amount of de-icing material used and still be effective.
f. Provide vehicles with spill cleanup kits in case of hydraulic line rupture or another spill.
g. Train employees in spill cleanup procedures and proper handling and storage of de-icing materials.

Process

a. Load material into trucks carefully to minimize spillage.
b. Periodically dry sweep loading area to reduce the number of de-icing materials exposed to runoff.
c. Distribute the minimum amount of de-icing material to be effective on the roads.
d. Do not allow spreaders to idle while distributing de-icing materials.
e. Park trucks loaded with de-icing materials inside when possible.

Clean-up/Follow-up

a. Sweep up all spilled de-icing material around loading area.
b. Clean out trucks after snow removal duty in approved washout area.
c. Provide maintenance for vehicles in covered areas.
d. If sand is used in de-icing operations, sweep up residual sand form streets when weather permits.
e. The County shall implement a written snow and ice management policy for individuals that perform winter maintenance activities for the County. The policy shall establish practices and procedures for snow and ice control operations (e.g., plowing, or other snow removal practices, sand use, and application of deicing compounds).

Documentation

a. Fill out daily activity report in logbook or journal. Include date, time, personnel, and location.

2.21. Streets/Storm Drain – Street Sweeping

Activities and Definition

Pollutants collect on surfaces in between storm events because of atmospheric deposition, vehicle emissions, winter road maintenance, construction site debris, trash, road wear and tear, and litter from adjacent lawn maintenance (grass clippings). Sweeping of materials such as sand, salt, leaves and debris from County streets, parking lots and sidewalks prevents them from being washed into storm sewers and surface waters. Timing, frequency, and critical area targeting greatly influence the effectiveness of sweeping.

Preparation

a. Prioritize cleaning routes to use at the highest frequency in areas with the highest pollutant loading.
b. Restrict street parking prior to and during sweeping using regulations as necessary.
c. Increase sweeping frequency just before the rainy season, unless sweeping occurs continuously throughout the year.
d. Perform preventative maintenance and services on sweepers to increase and maintain their efficiency.

Process

a. Streets are to be swept at a minimum of twice annually, or as needed or specified by the County; Street maps are used to ensure all streets are swept at a specific interval.
b. Drive street sweeper safely and pick up debris.
c. When full take the sweeper to an approved street sweeper cleaning station.

Clean-up/Follow-up

a. Street sweepers are to be cleaned out in an approved street sweeper cleaning station.
b. Street sweeping cleaning stations shall separate the solids from the liquids.
c. Once solids have dried out, haul them to the local landfill.
d. Decant water is to be collected and routed to an approved wastewater collection system area only.
e. Haul all dumped material to the landfill.

Documentation

a. Keep accurate logs to track streets swept and streets still requiring sweeping.
b. Log the number of debris collected and hauled off.

2.22. Streets/Storm Drain – Transporting Soil and Gravel

Activities and Definition

Transportation of materials should be handled with pre-planning and contingency planning.

Preparation

a. Dry out wet materials before transporting.
b. Spray down dusty materials to keep from blowing.
c. Make sure the County knows and understands the SWPPP requirements for the site the County will be working at.
d. Determine the location that the truck and other equipment will be cleaned afterwards.

Process

a. Use a stabilized construction entrance to access or leave the site where materials are being transported to/from.
b. Cover truck bed with a secured tarp before transporting.
c. Follow the SWPPP requirements for the specific site to /from which the materials are being hauled.
d. Make sure not to overfill materials when loading trucks.

Clean-up/Follow-up

a. Use sweeper to clean up any materials tracked out on the roads from site.
b. Washout truck and other equipment when needed in properly designated area.

Documentation

a. Keep records of any material that is tracked out of site and what was done to clean it up and how long it took to clean up and what the weather conditions were at the time.

2.23. Vehicles – Fueling

Activities and Definition

Fueling of equipment and vehicles should always occur in designated areas when possible. Spill prevention and planning should occur before any fueling takes place.

Preparation

a. Train employees on proper fueling methods and spill cleanup techniques.
b. Install a canopy or roof over aboveground storage tanks and fuel transfer areas.
c. Absorbent spill clean-up materials and spill kits shall be available in fueling areas and on mobile fueling vehicles and shall be disposed of properly after use.

Process

a. Shut off the engine
b. Ensure that the fuel is the proper type of fuel for the vehicle.
c. Nozzles used in vehicle and equipment fueling shall be equipped with an automatic shut off to prevent overfill.
d. Fuel vehicle carefully to minimize drips to the ground.
e. Fuel tanks shall not be topped off.
f. Mobile fueling shall be minimized. Whenever practical vehicles and equipment shall be transported to the designated fueling area in the Facilities area.
g. When fueling small equipment from portable containers, fuel in an area away from storm drains and water bodies.

Clean-up/Follow-up

a. Immediately clean up spills using dry absorbent (e.g., kitty litter, sawdust, etc.) sweep up absorbent material and properly dispose of contaminated clean up materials.
b. Large spills shall be contained as best as possible, and the Duty officer and Hazmat team should be notified as soon as possible.

Documentation

a. Comply with underground storage tank records and monitoring requirements.
b. Document training of employees.

2.24. Vehicles – Vehicle and Equipment Storage

Activities and Definition

When hazardous material encounters rain or snow, the pollutants are washed into the storm sewer system and, ultimately, to surface water bodies and/or ground water. Hazardous materials have negative impacts on fish habitat, ground water drinking water sources, and recreational uses.

Preparation

a. Inspect parking areas for stains/leaks on a regular basis.
b. Provide drip pans or absorbents for leaking vehicles.

Process

a. Whenever possible, store vehicles inside where floor drains have been connected to sanitary sewer systems.
b. When inside storage is not available, Vehicles and equipment will be parked in the approved designated areas.
c. Maintain vehicles to prevent leaks as much as possible.
d. Address any known leaks or drips as soon as possible. When a leak is detected a drip pan will be placed under the leaking vehicle.
e. The shop will provide a labeled location to empty and store drip pans.
f. Clean up all spills using dry methods.
g. Never store leaking vehicles over a storm drain.

Clean-up/Follow-up

a. Any leaks that are spilled on the asphalt will be cleaned up with dry absorbent; the dry absorbent will be swept up and disposed of in the garbage.
b. The paved surfaces around the building will be swept every two weeks, weather permitting.

Documentation

a. N/A

2.25. Vehicles – Washing

Activities and Definition

MS4 vehicle washing involves the removal of dust and dirt from the exterior of trucks, boats, and other vehicles, as well as the cleaning of cargo areas and engines and other mechanical parts. Washing of vehicles and equipment generates oil, grease, sediment, and metals in the wash water as well as degreasing solvents, cleaning solutions and detergents used in the cleaning operations.

Preparation

a. Provide wash areas for small vehicles inside the maintenance building that has a drain system which is attached to the sanitary sewer system.
b. Provide wash areas for large vehicles on an approved outside wash pad that has a drain system which is attached to the sanitary sewer system.
c. No vehicle washing will be done where the drain system is connected to the storm sewer system.

Process

a. Minimize water and soap use when washing vehicles inside the shop building.
b. Soap should not be used when washing vehicles outside the shop building.
c. Use hoses with automatic shut off nozzles to minimize water usage.
d. When washing outside the building, it is the operator's responsibility to make sure all wash water is contained on the wash pad and does not have access to the storm drain.
e. Never wash vehicles over a storm drain.

Clean-up/Follow-up

a. Sweep wash areas after every washing to collect what solids can be collected to prevent them from washing down the drain system.
b. Clean solids from the settling pits on an as needed basis.

Documentation

a. N/A

2.26. Water – Planned Waterline Excavation Repair/Replacement

Activities and Definition

Waterline Excavation and repair of an MS4 system can potentially involve activities that could affect the health of the MS4 system. Planning is critical.

Preparation

a. Determine where discharge flow will go.
b. Place inlet protection at nearest downstream storm drain inlets.
c. Clean gutters leading to inlets.
d. Isolate waterline to be worked on.
e. Neutralize any chlorine residual before discharging water.

Process

a. Make efforts to keep water from pipeline from entering the excavation.
b. Direct any discharge to pre-determined area.
c. Backfill and compact excavation.
d. Haul of excavated material or stockpile nearby.

Clean-up/Follow-up

a. Clear gutter /waterway where water flowed.

b. Clean up all areas around excavation.
c. Clean up travel path of trucked material.

Documentation

a. Complete paperwork.

2.27. Water – Unplanned Waterline Excavation Repair/Replacement

Activities and Definition

Waterline Excavation and repair of an MS4 system can potentially involve activities that could affect the health of the MS4 system. Unplanned excavations can be additionally tricky and pre-planning is critical.

Preparation

a. Make sure service trucks have wattles, gravel bags, or other materials for inlet protection.

Process

a. Slow the discharge.
b. Inspect flow path of discharge water.
c. Protect water inlet areas.
d. Follow planned repair procedures.
e. Haul off spoils of excavation.
f. Consider use of silt filter bags on pumps.

Clean-up/Follow-up

a. Repair eroded areas as needed.
b. Follow planned repair procedures.
c. Clean up the travel path of trucked excavated material.

Documentation

a. Complete paperwork.

2.28. Water – Transporting Dry Excavated Materials and Spoils

Activities and Definition

Transportation of materials should be handled with pre-planning and contingency planning.

Preparation

a. Utilize truck with proper containment of materials.
b. Determine disposal site of excavated materials.

Process

a. Load
b. Check truck after loading for possible spillage.
c. Transport in manner to eliminate spillage and tracking.
d. Utilize one route for transporting.

Clean-up/Follow-up

a. Clean loading area.
b. Clean transporting route.
c. Wash off truck and other equipment in a designated equipment cleaning area.

Documentation

a. Complete paperwork.

2.29. Water – Transporting Wet Excavated Materials & Spoils

Activities and Definition

Transportation of materials should be handled with pre-planning and contingency planning.

Preparation

a. Utilize truck with containment for material.
b. Determine disposal site of excavated material.

Process

a. Load and Transport in manner to minimize spillage & tracking of material.
b. Check truck for spillage.
c. Utilize one route of transport.

Clean-up/Follow-up

a. Clean route of transport to provide cleaning of any spilled material.
b. Washout equipment truck and other equipment in designated wash area.

Documentation

a. Complete paperwork.

2.30. Water – Waterline Flushing for Routine Maintenance

Activities and Definition

Flushing is a process that rapidly removes water from Anoka County's water piping system. Flushing uses water force to scour out materials that accumulate in the County's pipes. Water pipes are usually flushed by opening fire hydrants, where the discharged water flows off the streets the same as rainwater.

Preparation

a. Determine flow path of discharge to inlet of waterway.
b. Determine chlorine residual.
c. Neutralize chlorine residual.

Process

a. Clean flow path.
b. Protect inlet structures.
c. Use diffuser to dissipate pressure to reduce erosion possibilities.

Clean-up/Follow-up

a. Clean flow path.
b. Remove inlet protection

Documentation

a. Residual tests of discharge water.

2.31. Water – Waterline Flushing after Construction/System Disinfection with Discharge to Storm Drain.

Activities and Definition

Flushing is a process that rapidly removes water from Anoka County's water piping system. Flushing uses water force to scour out materials that accumulate in the County's

pipes. Water pipes are usually flushed by opening fire hydrants, where the discharged water flows off the streets the same as rainwater.

Preparation

a. Determine chlorine content of discharge water and select de-chlorination equipment to be used.
b. Determine flow path of discharge.

Process

a. Protect inlets in flow path.
b. Install de-chlorination equipment.
c. Sweep and clean flow path.
d. Use diffuser to reduce velocities.

Clean-up/Follow-up

a. Pick up inlet protection.
b. Clean flow paths.
c. Remove equipment from flush point.

Documentation

a. Residual tests of discharge water.
b. Complete paperwork.

2.32. Water – Chemical Handling/Transporting and Spill Release

Activities and Definition

Hotspot facilities are facilities that produce higher levels of stormwater pollutants and/or present a higher potential risk for spills, leaks, or illicit discharges. Hazardous material storage and handling is of particular concern in these areas.

Preparation

a. Understand MSDS sheets for handling of product.
b. Determine proper place of handling.
c. Have necessary containment and spill kits at handling place.

Process

a. Begin transfer process.
b. Discontinue operations if a spill level occurs.
c. Disconnect and store handling equipment.

Clean-up/Follow-up

a. Clean up spills with proper material.
b. Dispose of contaminated material at appropriate facility.

Documentation

a. Report spills to duty officer.
b. Complete paperwork.

2.33. Water – Pond Sediment Excavation

The County shall document pond sediment excavation and removal activities, including:
Documentation

a. Unique ID number and geographic coordinates of each stormwater pond from which sediment is removed.
b. The volume (e.g., cubic yards) of sediment removed from each stormwater pond.
c. Results from any testing of sediment from each removal activity.
d. Location(s) of final disposal of sediment from each stormwater pond.

Anoka County shall conduct an annual assessment of the operations and maintenance program to evaluate program compliance, the status of achieving the measurable requirements (activities that must be documented or tracked as applicable to the MCM (e.g., inventory, trainings, inspections, maintenance activities, etc.)) in Section 21, and determine how the program might be improved. The County must perform the annual assessment prior to completion of each annual report and document any modifications made to the program because of the annual assessment.

Anoka County Facility Inventory

ID	Structure Name	Campus	Address	POC Present?
1	Courthouse	Government Center	325 E. Main Street, Anoka, Mn	N
2	Government Center	Government Center	2100 3Rd Avenue, Anoka, Mn	N
3	Parking Ramp	Government Center	4Th & Van Buren, Anoka, Mn	N
4	Sheriff's Patrol Station	Sheriff'S Patrol Station	1530 Bunker Lake Blvd., Andover, Mn	N
5	Sheriff's Patrol Storage Shed	Sheriff'S Patrol Station	1530 Bunker Lake Blvd., Andover, Mn	N
6	Columbia Heights Serv./Lic. Center	Columbia Heights Serv./Lic. Center	3982 Central Ave. Ne, Columbia Heights, Mn	N
7	Old Highway Garage - Fairgrounds	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
8	Old Highway Cold Storage - Fairgrounds	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
9	Old Highway Salt Shed - Fairgrounds	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
10	Old Highway One-Car Garage - Fairgrounds	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
11	Old Highway Sign Shop - Fairgrounds	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
12	Highway Garage - Bunker Lake Shop	Highway Garage - Bunker Shop	1440 Bunker Lake Blvd. Nw., Andover, Mn	N
13	Highway Salt Storage Shed-Bunker Lk (5,600 Sq. Ft.)	Highway Garage - Bunker Shop	1440 Bunker Lake Blvd. Nw., Andover, Mn	Y
14	Highway Garage - St. Francis Storage	Highway Garage - St. Francis Storage	23340 Cree St. NW, St. Francis, Mn	N
15	Highway Garage - Coon Lake Storage	Highway Garage - Coon Lake Storage	5510 - 197Th Ave. Columbus Township, Mn	N
16	Highway Salt Storage/Handling Facility-Coon Lk Shop	Highway Garage - Coon Lake Storage	5510 - 197Th Ave. Columbus Township, Mn	Y
17	Highway Salt Storage/Handling Facility-St Francis Shop	Highway Garage - St. Francis Storage	22544 Rum River Blvd. St. Francis, Mn	Y
18	Highway Rum River Vehicle Storage Bldg.	Highway Rum River Vehicle Storage Bldg.	22544 Rum River Blvd Nw, St. Francis, Mn	N
19	Historical House	Colonial Hall	1900 Third Ave N. Anoka, Mn	N
20	Historical Society Museum And Library	History Center And Library	2135 Third Ave North, Anoka, Mn	N
21	Correctional Facility (Jail)	Correctional Facility (Jail)	4Th & Jackson, Anoka, Mn	N
22	Hwy. Dept. Storage Pole Bldg./Horses/Cattle	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
23	Metal Clad Pole Bldg. - 4-H Exhibit	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
24	Livestock Exhibit Red Barn - Wood Frame Monitor	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
25	Metal Clad Red Pole Barn	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
26	Clay Tile Arts & Crafts Bldg.	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
27	Arts & Crafts/Fair Board Office, Restrooms	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
28	Commercial Building #3	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
29	Commerce Building #2	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
30	Brown Monitor Roof Barn	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
31	2 Steel Frame Grandstands	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
32	Commissioner'S Building	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
33	Livestock Stalls	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
34	2 Aluminum Grandstands	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
35	1 Aluminum Bleacher	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
36	Pole Barn Aka Beer Garden	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
37	Shop Building	Fairgrounds	3203 St Francis Blvd. Anoka, Mn	N
38	Library Support Bldg.	Libraries	707 Hwy. 10, Blaine, Mn	N
39	Blaine (Central) Library	Libraries	707 Hwy. 10, Blaine, Mn	N
40	Mississippi Library	Libraries	410 Mississippi St. Ne, Fridley, Mn	N
41	Crooked Lake Branch	Libraries	11440 Crooked Lake Blvd., Coon Rapids, Mn	N
42	Johnsville Branch Library	Libraries	12461 Oak Park Blvd., Blaine, Mn	N
43	Northdale Branch Library	Libraries	408 Northdale Blvd., Nw, Coon Rapids, Mn	N
44	Centennial Branch	Libraries	Hwy. 23, Lake Drive & East Golden Lake Drive, Circle Pines, Mn	N
45	North Central Branch - 200 Crosstown Mall	Libraries	17565 Central Ave. N.E., Ham Lake, Mn	N
46	St. Francis Branch	Libraries	3519 Bridge St. Nw, St. Francis, Mn	N
47	Rum River Area Library	Libraries	4201- 6Th Ave N Anoka, Mn	N

48	Sanford Cottage	Correctional Facilities - Lino Lakes	7555 Fourth Ave., Lino Lakes, Mn	N
49	Walker Cottage	Correctional Facilities - Lino Lakes	7555 Fourth Ave., Lino Lakes, Mn	N
50	Anoka County Shelter Care Facility	Correctional Facilities - Lino Lakes	7555 4Th Avenue, Lino Lakes, Mn	N
51	Anoka Co Correctional Center - Medium Security	Correctional Facilities - Lino Lakes	7545 4Th Ave, Lino Lakes, Mn	N
52	East Central Regional Juvenile Center	Correctional Facilities - Lino Lakes	7565 Fourth Ave., Lino Lakes, Mn	N
53	Double Shelter - Gov. Lot 2, (Shelter # 6)	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
54	Double Shelter - Gov. Lot 2 (Shelter #7)	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
55	Single Shelter - Gov. Lot 2, (Shltr #2)	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
56	Trail-Footbridge #1	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
57	Trail-Footbridge #2	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
58	Single Shelter (# 1)	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
59	Single Shelter (#3)	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
60	Single Shelter (#4)	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
61	Single Shelter (#5)	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
62	Single Shelter (#9)	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
63	Wooden Play Structure	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
64	Restroom By Tank	Bunker Hills Regional Park	725 Parkway Rd C Nw, Andover, Mn	N
65	Old Archery Building	Bunker Hills Regional Park	12901 Foley Blvd., Coon Rapids, Mn	N
66	Archery Storage Bldg.	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, MN	N
67	Archery Shelter	Bunker Hills Regional Park	13315 Hanson Blvd Nw, Andover, Mn	N
68	Recreation/Archery Facility	Bunker Hills Regional Park	13315 Hanson Blvd, Andover, Mn	N
69	Bunker Hills Regional Park Info Sign	Bunker Hills Regional Park	Foley Blvd & Hwy # 242 Coon Rapids, Mn	N
70	Activities Center	Bunker Hills Regional Park	550 Bunker Lake Blvd., Nw, Andover, Mn	N
71	Mounted Patrol Stables	Bunker Hills Regional Park	190 - 132Nd Ave Nw, Coon Rapids, Mn	N
72	Bunker Hills Horse Stable Care Taker House	Bunker Hills Regional Park	190 -132Nd Ave Coon Rapids, Mn	N
73	Riding Stable	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
74	Cold Storage Building At Park Shop	Bunker Hills Regional Park	1350 Bunker Lake Blvd. Nw, Andover, Mn	N
75	(Old) Bunker Park Maintenance Shop	Bunker Hills Regional Park	500 Parkway Rd C, Andover, Mn	N
76	Wave Pool, Combined With Concession Stnd,Restrooms	Bunker Hills Regional Park	701 Parkway Rd A, Coon Rapids, Mn	N
77	Wavepool Storage Bldg	Bunker Hills Regional Park	701 Parkway Rd A, Coon Rapids, Mn	N
78	Wavepool-Shelter #1	Bunker Hills Regional Park	701 Parkway Rd A, Coon Rapids, Mn	N
79	Park Maintenance Shop & Garage	Bunker Hills Regional Park	1350 Bunker Lake Blvd. Nw., Andover, Mn	N
80	Campground Loop "A" Restroom & Shower Bldg	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
81	Campground Loop "B" Restroom & Shower Bldg	Bunker Hills Regional Park	550 Bunker Lake Blvd NW, Andover, Mn	N
82	North Visitors Contact Station	Bunker Hills Regional Park	13655 Co Parkway A, Andover, Mn	N
83	South Visitors Contact Station	Bunker Hills Regional Park	12700 Co Parkway A, Coon Rapids, Mn	N
84	Golf Course Clubhouse	Chomonix Golf Course	646 Sandpiper Drive, Lino Lakes, Mn	N
85	Chomonix Pole Barn/Shop	Chomonix Golf Course	646 Sandpiper Drive, Lino Lakes, Mn	N
86	Golf Course Storage Building	Chomonix Golf Course	646 Sandpiper Drive, Lino Lakes, Mn	N
87	Coon Rapids Evangelical Free Church	Miscellaneous Property	2650 128Th Ave Nw, Mn	N
88	Golf Course Caretaker's House	Chomonix Golf Course	7000 West Shadow Lake Dr., Line Lakes, Mn	N
89	Garage	Chomonix Golf Course	7000 West Shadow Lake Dr., Line Lakes, Mn	N
90	Storm Shelter, #1	Chomonix Golf Course	646 Sandpiper Drive, Lino Lakes, Mn	N
91	Storm Shelter, #2	Chomonix Golf Course	646 Sandpiper Drive, Lino Lakes, Mn	N
92	Footbridge-Chomonix-#1	Chomonix Golf Course	646 Sandpiper Drive, Lino Lakes, Mn	N
93	Footbridge-Chomonix #2	Chomonix Golf Course	646 Sandpiper Drive, Lino Lakes, Mn	N
94	Chain Of Lakes Compost Attendant Shed	Chomonix Golf Course	7751 Main St., Hugo, Mn	N
95	Driving Range Building	Chomonix Golf Course	646 Sandpiper Drive, Lino Lakes, Mn	N
96	Play Structure	Coon Lake Park	5450-197Th Av Ne, Wyoming, Mn	N
97	Coon Lake Park Restroom Enclosure	Coon Lake Park	5450-197Th Av Ne, Wyoming, Mn	N
98	Coon Lake Park Picnic Pavilion #1	Coon Lake Park	5450-197Th Av Ne, Wyoming, Mn	N

99	Coon Lake Park Picnic Pavilion #2	Coon Lake Park	5450-197Th Av Ne, Wyoming, Mn	N
100	Restroom Facility #1	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
101	Restroom Facility # 2	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
102	Benches, Tables, Trash Cans, Docks, Etc.	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
103	Park Shelter W/Cupola # 1	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
104	Park Shelter W/Cupola #2	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
105	Park Shelter W/Cupola #3	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
106	Park Shelter W/Cupola # 4	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
107	Park Shelter W/Cupola # 5	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
108	Park Shelter W/Cupola #6	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
109	Contact Station	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
110	Coon Rapids Dam Activity Center & Garage	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
111	Playground Structure	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
112	Horse Stable/Barn	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
113	Footbridge-#1	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
114	Footbridge #2	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
115	Sheriff's Boathouse	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
116	Entrance Sign	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
117	Cenaiko Lake Fishing Pier	Coon Rapids Dam Regional Park	9750 Egret Blvd., Coon Rapids, Mn	N
118	Shelter 40'	Ham Lake County Park	1835 153Rd Ave. Ne., Ham Lake, Mn	N
119	Ham Lake Shelter Bldg.	Ham Lake County Park	1835 153Rd Ave. Ne., Ham Lake, Mn	N
120	Playground Structure (Kid Builder)	Ham Lake County Park	1835 153Rd Ave. Ne., Ham Lake, Mn	N
121	Restroom	Kordiak County Park	1845 - 49Th Avenue N.E., Columbia Heights, Mn	N
122	Shelter	Kordiak County Park	1845 - 49Th Avenue N.E., Columbia Heights, Mn	N
123	Footbridge # 1	Kordiak County Park	1845 - 49Th Avenue N.E., Columbia Heights, Mn	N
124	Foot Bridge #2	Kordiak County Park	1845 - 49Th Avenue N.E., Columbia Heights, Mn	N
125	Footbridge #3	Kordiak County Park	1845 - 49Th Avenue N.E., Columbia Heights, Mn	N
126	Footbridge #4	Kordiak County Park	1845 - 49Th Avenue N.E., Columbia Heights, Mn	N
127	Lake George Bathhouse	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
128	Lake George Shelter Picnic Shelter #6	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
129	Lake George Picnic Shelter #1	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
130	Lake George Shelter # 7 W/Concrete	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
131	Playground Structure	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
132	Boardwalk	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
133	Lake George Shelter #3	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
134	Lake George Shelter #2	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
135	Lake George Shelter #4	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
136	Lake George Shelter #5	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
137	Lake George Restroom # 1	Lake George Regional Park	2750-217Th Av., Anoka, Mn	N
138	Lake George Restroom # 2	Lake George Regional Park	2701 - 217Th Ave., Anoka, Mn	N
139	Lake George Restroom # 3	Lake George Regional Park	2900-217Th Av., Anoka, Mn	N
140	Lake George Contact Station	Lake George Regional Park	3000 - 217Th Ave Nw, Anoka, Mn	N
141	Kiosk	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
142	Lake George Regional Park Picnic Pavilion	Lake George Regional Park	2671-217Th Av Nw, Anoka, Mn	N
143	North Division Maintenance Cntr-(Shop/Garage)	Lake George Regional Park	2740-221St Av Nw, Anoka, Mn	Y
144	Observation Deck # 1	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
145	Observation Deck # 2	Lake George Regional Park	3100 - 217Th Ave Nw, Oak Grove, Mn	N
146	Shelter	Manomin County Park	6666 East River Road, Fridley, Mn	N
147	Banfil-Locke Center For The Arts	Manomin County Park	6666 East River Road, Fridley, Mn	N
148	Restroom	Manomin County Park	6753 East River Rd, Fridley, Mn	N
149	Footbridge # 1	Manomin County Park	6753 East River Rd, Fridley, Mn	N

150	Footbridge # 2	Manomin County Park	6753 East River Rd, Fridley, Mn	N
151	Fishing/Observation Deck	Manomin County Park	6753 East River Rd, Fridley, Mn	N
152	Kiosk	Manomin County Park	6753 East River Rd, Fridley, Mn	N
153	Trash Enclosure	Manomin County Park	6753 East River Rd, Fridley, Mn	N
154	Kiosk	Manomin County Park	6753 East River Rd, Fridley, Mn	N
155	Camp Salie Lodge	Martin Island Linwood Lakes Regional Park	22342 Martin Lk Rd Ne, Stacy, Mn	N
156	Camp Salie Staff Cabin	Martin Island Linwood Lakes Regional Park	22342 Martin Lk Rd Ne, Stacy, Mn	N
157	Camp Salie Cabin #4	Martin Island Linwood Lakes Regional Park	22342 Martin Lk Rd Ne, Stacy, Mn	N
158	Camp Salie Cabin #3	Martin Island Linwood Lakes Regional Park	22342 Martin Lk Rd Ne, Stacy, Mn	N
159	Camp Salie Cabin # 2	Martin Island Linwood Lakes Regional Park	22342 Martin Lk Rd Ne, Stacy, Mn	N
160	Camp Salie Cabin # 1	Martin Island Linwood Lakes Regional Park	22342 Martin Lk Rd Ne, Stacy, Mn	N
161	Camp Salie Restroom	Martin Island Linwood Lakes Regional Park	22342 Martin Lk Rd Ne, Stacy, Mn	N
162	Camp Salie Shed	Martin Island Linwood Lakes Regional Park	22342 Martin Lk Rd Ne, Stacy, Mn	N
163	Camp Salie Pole Shelter	Martin Island Linwood Lakes Regional Park	22342 Martin Lk Rd Ne, Stacy, Mn	N
164	Camp Salie Foot Bridge	Martin Island Linwood Lakes Regional Park	22342 Martin Lk Rd Ne, Stacy, Mn	N
165	Boardwalk	Martin Island Linwood Lakes Regional Park	22342 Martin Lk Rd Ne, Stacy, Mn	N
166	Martin Lake Shelter And Swingset	Martin Island Linwood Lakes Regional Park	22342 Martin Lk Rd Ne, Stacy, Mn	N
167	Reception Center	Mississippi River - Island Of Peace	200 Charles St. Ne, Fridley, MN	N
168	Island Of Peace - Two Door Garage	Mississippi River - Island Of Peace	200 Charles St. Ne, Fridley, MN	N
169	Footbridge	Mississippi River - Island Of Peace	200 Charles St. Ne, Fridley, MN	N
170	Husby House	Mississippi River West Regional Park	13935 Trap Rock St. Nw, Anoka, Mn	N
171	Chicken Coop	Mississippi River West Regional Park	13935 Trap Rock St. Nw, Anoka, Mn	N
172	Garage	Mississippi River West Regional Park	13935 Trap Rock St. Nw, Anoka, Mn	N
173	Pole Building #1	Mississippi River West Regional Park	13935 Trap Rock St. Nw, Anoka, Mn	N
174	Pole Building #2	Mississippi River West Regional Park	13935 Trap Rock St. Nw, Anoka, Mn	N
175	Shed	Mississippi River West Regional Park	13935 Trap Rock St. Nw, Anoka, Mn	N
176	Anderson House	Mississippi River West Regional Park	15049 Uranimite Street, Ramsey, Mn	N
177	Anderson Garage	Mississippi River West Regional Park	15049 Uranimite Street, Ramsey, Mn	N
178	Rice Creek Campground Shower/Laundry Building	Rice Creek Chain-Of-Lakes Regional Park Reserve	7700 Main St, Lino Lakes, Mn	N
179	Rick Creek Wood Frame Play Structure	Rice Creek Chain-Of-Lakes Regional Park Reserve	7700 Main St, Lino Lakes, Mn	N
180	Rice Creek Contact Station	Rice Creek Chain-Of-Lakes Regional Park Reserve	7401 Main St, Hugo, Mn	N
181	Wargo Nature Interpretive Center	Rice Creek Chain-Of-Lakes Regional Park Reserve	7701 Main Street Lino Lakes, Mn	N
182	Wargo Nature Center Storage Building	Rice Creek Chain-Of-Lakes Regional Park Reserve	7701 Main Street Lino Lakes, Mn	N
183	Shed	Rice Creek Chain-Of-Lakes Regional Park Reserve	7701 Main Street Lino Lakes, Mn	N
184	Footbridge	Rice Creek Chain-Of-Lakes Regional Park Reserve	7701 Main Street Lino Lakes, Mn	N
185	Ampitheatre	Rice Creek Chain-Of-Lakes Regional Park Reserve	7701 Main Street Lino Lakes, Mn	N
186	Boardwalk	Rice Creek Chain-Of-Lakes Regional Park Reserve	7701 Main Street Lino Lakes, Mn	N
187	Centerville Beach Gazebo/Trellis Structure	Rice Creek Chain-Of-Lakes Regional Park Reserve	5 County Parkway Rd, Centerville, Mn	N
188	Centerville Beach Large Group Picnic Pavilion	Rice Creek Chain-Of-Lakes Regional Park Reserve	5 County Parkway Rd, Centerville, Mn	N
189	Centerville Beach Restroom/Change Room Building	Rice Creek Chain-Of-Lakes Regional Park Reserve	5 County Parkway Rd, Centerville, Mn	N
190	Centerville Beach Lifeguard/Multi-Purpose Building	Rice Creek Chain-Of-Lakes Regional Park Reserve	5 County Parkway Rd, Centerville, Mn	N
191	Peltier Lake Fishing Pier	Rice Creek Chain-Of-Lakes Regional Park Reserve	7700 Main St, Lino Lakes, Mn	N
192	Rice Creek Campground Ampitheater & Stage	Rice Creek Chain-Of-Lakes Regional Park Reserve	#4 Co Parkway E, Lino Lakes, Mn	N
193	Barn At Heritage Lab	Rice Creek Chain-Of-Lakes Regional Park Reserve	#4 Co Parkway E, Lino Lakes, Mn	N
194	Heritage Lab Storage Garage	Rice Creek Chain-Of-Lakes Regional Park Reserve	#4 Co Parkway E, Lino Lakes, Mn	N
195	Boardwalk At Aqua Lane	Rice Creek Chain-Of-Lakes Regional Park Reserve	#4 Co Parkway E, Lino Lakes, Mn	N
196	Trash Enclosure At Campground	Rice Creek Chain-Of-Lakes Regional Park Reserve	#4 Co Parkway E, Lino Lakes, Mn	N
197	Centerville Beach Playground	Rice Creek Chain-Of-Lakes Regional Park Reserve	#4 Co Parkway E, Lino Lakes, Mn	N
198	Waterfall Water Play Structure	Rice Creek Chain-Of-Lakes Regional Park Reserve	#4 Co Parkway E, Lino Lakes, Mn	N
199	Campground Registration Building	Rice Creek Chain-Of-Lakes Regional Park Reserve	#4 Co Parkway E, Lino Lakes, Mn	N
200	Fahr Building #10	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N

201	Cottage #9	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
202	Cottage #8	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
203	Vail Building #36	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
204	Service Tunnel	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
205	Coon Rapids License Bureau	License Bureau	3026 1/2 - 111Th Ave Nw, Coon Rapids, Mn	N
206	Anoka Motor Vehicle Bureau	License Bureau	6111 Highway 10, Ramsey, Mn	N
207	Blaine Motor Vehicles Bureau	License Bureau	11000 Hwy. 65 Ne, Blaine, Mn	N
208	Ham Lake Motor Vehicle Bureau	License Bureau	17565 Central Ave Ne Ham Lake, Mn	N
209	First Lutheran Church	Miscellaneous Property	1555 40Th Ave. Columbia Heights, Mn	N
210	Presbyterian Church Of The Master	Miscellaneous Property	789 Northdale Blvd, Cr, Mn	N
211	Galilee Baptist Church	Miscellaneous Property	North Road, Lexington, Mn	N
212	Human Service Center Of Anoka County	Blaine Human Service Center	1201 89Th Ave., Ne, Blaine, Mn	N
213	Eastern Anoka Co Human Service Center	Eastern Anoka Co Human Service Center	4175 Lovell Road Lexington, Mn	N
214	Anoka County Head Start Facility	Head Start Facility	9574 Foley Blvd., Coon Rapids, Mn	N
215	Bunker Hills Stable Barn	Bunker Hills Regional Park	190 -132Nd Ave Coon Rapids, Mn	N
216	Bunker Hills Stable Arena/Office	Bunker Hills Regional Park	190 -132Nd Ave Coon Rapids, Mn	N
217	Playground Structure	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840-71St Ave Ne, Fridley, Mn	N
218	Footbridge Across Miss. St	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840-71St Ave Ne, Fridley, Mn	N
219	Footbridge #1	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840-71St Ave Ne, Fridley, Mn	N
220	Footbridge #2	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840-71St Ave Ne, Fridley, Mn	N
221	Footbridges #3	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840-71St Ave Ne, Fridley, Mn	N
222	Footbridge # 4	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840-71St Ave Ne, Fridley, Mn	N
223	Footbridge #5	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840-71St Ave Ne, Fridley, Mn	N
224	Footbridge-#6	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840-71St Ave Ne, Fridley, Mn	N
225	Footbrdige #7	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840-71St Ave Ne, Fridley, Mn	N
226	Footbridge #8	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840-71St Ave Ne, Fridley, Mn	N
227	Trail Tunnel	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840-71St Ave Ne, Fridley, Mn	N
228	Restroom At Locke Park	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840 71St Ave., Fridley, Mn	N
229	Picnic Pavilian # 1 At Locke Park	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840 71St Ave., Fridley, Mn	N
230	Picnic Shelter #2	Rice Creek West Regional Trail Corridor (Includes Locke Park)	840 71St Ave., Fridley, Mn	N
231	Restroom # 1	Riverfront Regional Park	5100 East River Road, Fridley, Mn	N
232	Restroom #2	Riverfront Regional Park	5100 East River Road, Fridley, Mn	N
233	Shelter #1	Riverfront Regional Park	5100 East River Road, Fridley, Mn	N
234	Shelter #1	Riverfront Regional Park	5100 East River Road, Fridley, Mn	N
235	Riverfront Reception House Reidel Estate	Riverfront Regional Park	5220 East River Rd., Fridley, Mn	N
236	Reidel Farm Estate Picnic Gazebo	Riverfront Regional Park	5100 East River Rd, Fridley, Mn	N
237	Kiosk	Riverfront Regional Park	5100 East River Rd, Fridley, Mn	N
238	Information Kiosk	Rum River Central Regional Park	17955 Roanoke Street, Ramsey, Mn	N
239	Visitor Contact Station	Rum River Central Regional Park	17955 Roanoke Street, Ramsey, Mn	N
240	South Restroom	Rum River Central Regional Park	17955 Roanoke Street, Ramsey, Mn	N
241	Picnic Pavilion	Rum River Central Regional Park	17955 Roanoke Street, Ramsey, Mn	N
242	Kiosk/Restroom Enclosure	Rum River Central Regional Park	17955 Roanoke Street, Ramsey, Mn	N
243	Playground Structure	Rum River Central Regional Park	17955 Roanoke Street, Ramsey, Mn	N
244	Fishing Pier	Rum River Central Regional Park	17955 Roanoke Street, Ramsey, Mn	N
245	1 Shelter	Rum River North County Park	23100 Rum River Blvd, St Francis, Mn	N
246	Restroom	Rum River North County Park	23100 Rum River Blvd, St Francis, Mn	N
247	Rum River North Shelter Bldg.	Rum River North County Park	23100 Rum River Blvd, St Francis, Mn	N
248	Picnic Pavillion With Cupola	Rum River North County Park	23100 Rum River Blvd, St Francis, Mn	N
249	Fishing Pier	Rum River North County Park	3525 Bridge St., St Francis, Mn	N
250	Playground Structure	Rum River North County Park	23100 Rum River Blvd, St Francis, Mn	N
251	North Observation Deck	Rum River North County Park	23100 Rum River Blvd, St Francis, Mn	N

252	South Observation Deck	Rum River North County Park	23100 Rum River Blvd, St Francis, Mn	N
253	Foot Bridge	Rum River North County Park	23100 Rum River Blvd, St Francis, Mn	N
254	Restroom	Rum River South County Park	3000 N Ferry St, Anoka, Mn	N
255	Picnic Pavilion With Cupola	Rum River South County Park	3000 N Ferry St, Anoka, Mn	N
256	Playground Structure	Rum River South County Park	3000 N Ferry St, Anoka, Mn	N
257	Portable Restroom Enclosure	Rum River South County Park	3000 N Ferry St, Anoka, Mn	N
258	Fishing Pier	Rum River South County Park	3000 N Ferry St, Anoka, Mn	N
259	Twin Lakes Caretaker'S House	Twin Lakes County Park	9429 Viking Blvd., Nw, Elk River, Mn	N
260	Twin Lakes Caretaker'S Shed	Twin Lakes County Park	9429 Viking Blvd. Nw, Elk River, Mn	N
261	Twin Lakes -Single Shelter #1	Twin Lakes County Park	9435 Viking Blvd, Elk River, Mn	N
262	Twin Lakes -Single Shelter #2	Twin Lakes County Park	9435 Viking Blvd, Elk River, Mn	N
263	Twin Lakes Double Shelter #3	Twin Lakes County Park	9435 Viking Blvd, Elk River, Mn	N
264	Twin Lakes Bathhouse	Twin Lakes County Park	9435 Viking Blvd, Elk River, Mn	N
265	Malton Radio Building	Radio Buildings/Towers	1100 Paul Parkway, Blaine, Mn	N
266	Transmitter Station	Radio Buildings/Towers	1100 Paul Parkway, Blaine, Mn	N
267	Radio Bldg. - Bunker Hills Golf Course	Radio Buildings/Towers	12800 Bunker Prairie Park Dr., Coon Rapids, Mn	N
268	Radio Tower - Bunker Hills Golf Course	Radio Buildings/Towers	12800 Bunker Prairie Park Dr., Coon Rapids, Mn	N
269	Radio Tower - East Bethel Fire Dept. Bldg.,	Radio Buildings/Towers	2751 Viking Blvd., East Bethel, Mn	N
270	Radio Tower	Radio Buildings/Towers	47 Stinson Blvd., Columbia Heights, Mn	N
271	Columbia Heights City Hall	Radio Buildings/Towers	590 40Th Ave., Columbia Heights, Mn	N
272	Ham Lake Tower (East Tower)	Radio Buildings/Towers	15544 Central Ave. Nw., Ham Lake, Mn	N
273	St. Francis Antenna Site	Radio Buildings/Towers	St. Francis, Mn	N
274	Camp Salie Antenna Site & Shelter	Radio Buildings/Towers	Wyoming, Mn	N
275	Spring Lake Park Antenna Site -And Shelter	Radio Buildings/Towers	8249 Arthur Street, Spring Lake Park, Mn	N
276	Fridley Antenna Site	Radio Buildings/Towers	6431 University Ave. NE, Fridley, Mn	N
277	Riverfront Antenna Site	Radio Buildings/Towers	6431 University Ave. NE, Fridley, Mn	N
278	Centerville Antenna Site	Radio Buildings/Towers	7200 Shad Ave, Centerville, Mn	N
279	Burns Township Antenna Site	Radio Buildings/Towers	8188 199th Ave NW, Nowthen Mn	N
280	Radio Repair Facility	Radio Buildings/Towers1	13595 Hanson Blvd., Coon Rapids, Mn	N
281	Radio Repair Tower	Radio Buildings/Towers	13595 Hanson Blvd., Coon Rapids, Mn	N
282	Rifle Range Office Bldg. & Shelter	Rifle Range At Bunker Hills	13299 Hanson Blvd., Coon Rapids, Mn	N
283	Rifle Range Garage #1	Rifle Range At Bunker Hills	13299 Hanson Blvd., Coon Rapids, Mn	N
284	Rifle Range Garage #2	Rifle Range At Bunker Hills	13299 Hanson Blvd., Coon Rapids, Mn	N
285	Nurse Dorm # 1	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
286	Building #4	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
287	Building #2	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
288	Cottage #3	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
289	Power House #21	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
290	So. Garage #19	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
291	No. Garage #18	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
292	Maintenance Bldg #16	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
293	Service Center #15	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
294	Auditorium #14	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
295	Administration #13	Rum River Human Service Center	3300 No. Fourth Ave., Anoka, Mn	N
296	Campground Registration/Multipurpose Building	Bunker Hills Regional Park	131 County Parkway B, Coon Rapids, Mn	N
297	Fence	Bunker Hills Regional Park	131 County Parkway B, Coon Rapids, Mn	N
298	Bunker Beach Toilet Concessions	Bunker Hills Regional Park	701 County Parkway A, Coon Rapids, Mn	N
299	Bunker Beach Lifeguard/Multipurpose Building	Bunker Hills Regional Park	701 County Parkway A, Coon Rapids, Mn	N
300	Bunker Beach Ticket Booth	Bunker Hills Regional Park	701 County Parkway A, Coon Rapids, Mn	N
301	Learning Center	Miscellaneous Property	2740 Wingfield Ave N, Anoka, Mn	N
302	Blaine Radio Equipment Shelter	Radio Buildings/Towers	9191 Lincoln Street Nw, Blaine, Mn	N

303	Columbia Heights Radio Equipment Shelter Building	Radio Buildings/Towers	4633 Ivanhoe Place, Columbia Heights, Mn	N
304	Coon Rapids Dam Performance Pavilion	Coon Rapids Dam Regional Park	9750 Egret Blvd, Coon Rapids, Mn	N
305	Bunker Hills Picnic Restroom #1	Bunker Hills Regional Park	13479 County Parkway C, Andover, Mn	N
306	Dnr/Carlos Avery Radio Equipment Building	Radio Buildings/Towers	18310 Zodiac St Ne, Forest Lake, Mn	N
307	Burns Township B108 Radio Equipment Shelter Building	Radio Buildings/Towers	20167 St. Francis Blvd Nw, Anoka, Mn	N
308	Bethel Site	Radio Buildings/Towers	Highway 24 & Cooper Ave, Bethel, Mn	N
309	Carlos Avery Site	Radio Buildings/Towers	18310 Zodiac Street, Forest Lake, Mn	N
310	Stacy Site	Radio Buildings/Towers	29550 Forest Blvd, Stacy, Mn	N
311	Lino Lakes Site	Radio Buildings/Towers	7525 Fourth Ave, Lino Lakes, Mn	N
312	Government Center	Radio Buildings/Towers	2100 Third Ave, Anoka, Mn	N

Date & Time of Inspection	
Weather Conditions	
24hr Precipitation	inches
Reason for Inspection	
Inspector	

Outfall Inspection Form

BMP I.D. #		**Receiving Water:**		**BMP Condition (5-Star) *1**	
Address / Location:				**Illicit Discharge Present:**	☐**Yes** ☐**No** *(if yes, complete IDDE form)*
				IDDE Comments:	
Inspector Comments:					

Outfall Condition Checklist

Erosion *2		**Physical Damage to Pipe** *2	
Debris in Outfall *3		**Vegetative Setting to Outfall** *4	
Comments:			

Discharge Checklist

Visible Flow in Structure	☐Yes ☐No	**Outfall Discharge** (check all that apply)**:**	☐ Clear ☐ Murky / Turbid ☐ Oil Sheer ☐ Floating Objects ☐ Colored Water ☐ Scum ☐ Odor ☐ Suds
Water Height from Invert *5			
Sediment Buildup *5			
Comments:			

Photo #1:	**Photo #2:**

*1
- **a.** ★★★★★ Clear/Functioning
- **b.** ★★★★☆ Needs Maintenance/Cleaning
- **c.** ★★★☆☆ Needs Repair
- **d.** ★★☆☆☆ Needs Replacement
- **e.** ★☆☆☆☆ Immediate Action Needed

*2
- **a.** None
- **b.** Minor
- **c.** Severe

*3
- **a.** Clear
- **b.** Partially Obstructed
- **c.** Mostly Blocked

*4
- **a.** No Vegetation
- **b.** Grass
- **c.** Reeds
- **d.** Shrubs
- **e.** Trees

*5
- **a.** 0%
- **b.** 25%
- **c.** 50%
- **d.** 75%
- **e.** 100%

ANOKA COUNTY

Date & Time of Inspection	
Weather Conditions	
24hr Precipitation	inches
Reason for Inspection	
Inspector	

Stormwater Pond Inspection Form

BMP I.D. #		**Receiving Water:**		**BMP Condition (5-Star) *1**	
Address / Location:				**Illicit Discharge Present:**	☐**Yes** ☐**No** *(if yes, complete IDDE form)*
				IDDE Comments:	
Inspector Comments:					

Pond Checklist

Erosion *2		**Width of Vegetate Buffer** *3	
Sediment (sediment, gravel, etc.) *2		**Pond Vegetation** *4	
Description of Flow in Pond *5			
Comments:			

Outflow Structure Checklist

Visible Flow in Structure	☐**Yes** ☐**No**	**Water Height from Invert** *4	
Erosion *2		**Physical Damage to Pipe** *2	
Debris in Pipe *6		**Sediment Buildup near Pipe** *4	
Comments:			

Outfall / Inflow Structure Checklist

** Complete Separate Outfall / Inflow Structure Inspection Form **

Photo #1:	**Photo #2:**

***1**
- **a.** ★★★★★ Clear/Functioning
- **b.** ★★★★☆ Needs Maintenance/Cleaning
- **c.** ★★★☆☆ Needs Repair
- **d.** ★★☆☆☆ Needs Replacement
- **e.** ★☆☆☆☆ Immediate Action Needed

***2**
- **a.** None
- **b.** Minor
- **c.** Severe

***3**
- **a.** Less than 5’
- **b.** 5’ – 29’
- **c.** 30’ – 50’
- **d.** Greater than 50’

***4**
- **a.** 0%
- **b.** 25%
- **c.** 50%
- **d.** 75%
- **e.** 100%

***5**
- **a.** None
- **b.** Trickle
- **c.** Moderate
- **d.** Substantial

***6**
- **a.** Clear
- **b.** Partially Obstructed
- **c.** Mostly Blocked

FID	Shape *	Id	City	Notes	Comment	Street	SideofRoad	ROUTE	ACRES	X	Y	TYPE
0	Polygon	101	ANDOVER	0.14 MI S OF 149TH AVE NW		ROUND LAKE BLVD	NW	CSAH 9	1.41	479073	174394	POND
1	Polygon	102	ANDOVER	BETWEEN HEATHER & JONQUIL ST		BUNKER LAKE BLVD	N	CSAH 116	1.56	480144	167399	POND
2	Polygon	103	ANDOVER	SE QUAD OF BUNKER LAKE BLVD & CROSSTOWN BLVD		BUNKER LAKE BLVD	SE	CSAH 116	0.37	484578	167091	POND
3	Polygon	104	ANDOVER	BETWEEN 135TH LN NW & STATION PKWY		COON CREEK BLVD	E	CSAH 18	1.69	484568	166188	POND
4	Polygon	105	ANDOVER	400' N OF 135TH LN NW		COON CREEK BLVD	W	CSAH 18	3.14	484233	166137	POND
5	Polygon	106	ANDOVER	300' S OF 135TH LN NW		COON CREEK BLVD	W	CSAH 18	4.99	483799	165556	POND
6	Polygon	107	ANDOVER	200' E OF CROOKED LAKE BLVD		BUNKER LAKE BLVD	N	CSAH 116	0.22	481865	167318	POND
7	Polygon	108	ANDOVER	100' SW OF 142ND AVE NW		CROSSTOWN BLVD	SE	CSAH 18	0.06	485927	170997	POND
8	Polygon	109	ANDOVER	700' NE OF JONQUIL ST NW		ROUND LAKE BLVD	SE	CSAH 9	1.54	478871	173490	POND
9	Polygon	110	ANDOVER	400' N OF 144TH AVE NW		ROUND LAKE BLVD	W	CSAH 9	1.4	476789	172485	POND
10	Polygon	111	ANDOVER	100' W OF BITTERSWEET ST NW		BUNKER LAKE BLVD	S	CSAH 116	0.21	482244	167063	POND
28	Polygon	130	ANDOVER	700' E OF HANSON BLVD		ANDOVER BLVD	S	CSAH 16	5.37	491896	172073	
62	Polygon	167	ANDOVER	0.30 MI S OF 170TH AVE NW		ROANOKE ST	W	CSAH 7	0.82	468404	186841	
68	Polygon	174	ANDOVER	S OF 135TH LN NW		COON CREEK BLVD	E	CSAH 18	0.69	484816	165871	
88	Polygon	195	ANDOVER	300' W OF ACHD ENT		BUNKER LAKE BLVD	S	CSAH 78	1.42	490668	166926	
89	Polygon	196	ANDOVER	200' E OF ACHD ENT		BUNKER LAKE BLVD	S	CSAH 78	0.24	491308	166933	
92	Polygon	197	ANDOVER	650' N OF BUNKER LAKE BLVD	BET GAS STA & CLINIC	HANSON BLVD	E	CSAH 78	0.39	490084	167720	
93	Polygon	198	ANDOVER	550' N OF BUNKER LAKE BLVD	BET GAS STA & CLINIC	HANSON BLVD	E	CSAH 78	0.4	490142	167606	
112	Polygon	222	ANDOVER	180' N OF 133RD AVE NW		HANSON BLVD	W	CSAH 78	1.82	489485	164661	
119	Polygon	224	ANDOVER	200' N OF 153RD LN NW		HANSON BLVD	W	CSAH 78	0.9	489959	178582	
120	Polygon	227	ANDOVER	500' N OF 153RD LN NW		HANSON BLVD	E	CSAH 78	1.35	489674	178453	
125	Polygon	232	ANDOVER	500' E OF BLUEBIRD ST	NOT A COUNTY ROAD	CROSSTOWN BLVD	N	-	0.96	491001	177456	
173	Polygon	280	ANDOVER	500' NW OF BLACKFOOT ST NW		BUNKER LAKE BLVD	NE	CSAH 116	0.44	473839	170449	
174	Polygon	281	ANDOVER	AT 12TH AVE		BUNKER LAKE BLVD	N	CSAH 116	0.16	474938	167523	
176	Polygon	283	ANDOVER	1600' E OF 7TH AVE		BUNKER LAKE BLVD	N	CSAH 116	0.28	473008	170620	
178	Polygon	285	ANDOVER	600' W OF UNDERCLIFT ST NW		BUNKER LAKE BLVD	N	CSAH 116	0.13	475505	167305	
94	Polygon	201	ANOKA	0.58 MI WEST OF CSAH 7	OFF SE CORNER OF BRIDGE	BUNKER LAKE BLVD	S	CSAH 116	0.14	468365	169852	
175	Polygon	282	ANOKA	50' S OF 38TH AVE		BUNKER LAKE BLVD	SW	CSAH 116	0.46	474223	167812	
177	Polygon	284	ANOKA	100' N OF 40TH LN		7TH AVE	W	CSAH 7	0.21	471244	169742	
179	Polygon	286	ANOKA	150' W OF 6TH AVE		BUNKER LAKE BLVD	N	CSAH 116	0.19	470432	170592	
15	Polygon	117	BLAINE	500' W OF ULYSSES ST NE		MAIN STREET	N	CSAH 14	0.46	506952	159246	POND
16	Polygon	118	BLAINE	0.5 MI S OF 125TH ST NE		LEXINGTON AVE	E	CSAH 17	1.73	526902	155839	POND
17	Polygon	119	BLAINE	600' N OF 114TH LN NE		LEXINGTON AVE	W	CSAH 17	1.2	526565	152481	POND
18	Polygon	120	BLAINE	750' S OF 114TH LN NE		LEXINGTON AVE	E	CSAH 17	0.62	526904	151150	
19	Polygon	121	BLAINE	S OF 111TH AVE NE		LEXINGTON AVE	E	CSAH 17	0.58	526835	149452	
20	Polygon	122	BLAINE	S OF 97TH LN NE		LEXINGTON AVE	W	CSAH 17	0.4	526488	140622	POND
21	Polygon	123	BLAINE	200' N OF COUNTY RD J		LEXINGTON AVE	W	CSAH 17	0.16	526122	132658	POND
24	Polygon	126	BLAINE	300' W OF I-35W SERVICE RD		95TH AVE NE	N	CSAH 52	1.55	519872	139317	POND
25	Polygon	127	BLAINE	300' E OF I-35W SERVICE RD		95TH AVE NE	N	CSAH 52	1.03	520443	139329	POND
26	Polygon	128	BLAINE	300' E OF I-35W SERVICE RD		95TH AVE NE	S	CSAH 52	1.21	520380	138897	POND
30	Polygon	132	BLAINE	BETWEEN BALTIMORE AVE & DAVENPORT		105TH AVE	S	CR 87	1.62	509224	145574	POND
31	Polygon	133	BLAINE	105TH AVE INTERSECTION		RADISSON RD	E	CSAH 52	0.12	513443	145548	POND
32	Polygon	135	BLAINE	INTERSECTION OF 106TH LN NE		RADISSON RD	E	CSAH 52	0.86	513572	147050	POND
33	Polygon	136	BLAINE	450' N OF AMEN DR NE		RADISSON RD	N	CSAH 52	0.47	514684	149396	
34	Polygon	137	BLAINE	600' S OF CLOUD DR NE		RADISSON RD	E	CSAH 52	1.04	513923	156147	
35	Polygon	138	BLAINE	300' S OF CLOUD DR NE		RADISSON RD	E	CSAH 52	0.23	513821	156481	
36	Polygon	139	BLAINE	650' S OF CLOUD DR NE		RADISSON RD	NE	CSAH 52	1.43	513236	157345	

FID	Shape *	Id	City	Notes	Comment	Street	SideofRoad	ROUTE	ACRES	X	Y	TYPE
37	Polygon	140	BLAINE	0.30 N OF CLOUD DR NE		RADISSON RD	NE	CSAH 52	0.95	512559	157933	
38	Polygon	141	BLAINE	SW QUAD OF CSAH 52 AND CSAH 14		RADISSON RD	W	CSAH 52	0.34	512103	158701	
39	Polygon	143	BLAINE	0.35 MI S OF 105TH AVE		RADISSON RD	W	CSAH 52	0.22	513682	143728	POND
40	Polygon	144	BLAINE	0.20 MI W OF XYLITE ST NE		RADISSON RD	N	CSAH 52	0.1	515008	143203	POND
41	Polygon	146	BLAINE	300' W OF FLANDERS CT NE		RADISSON RD	S	CSAH 52	0.11	518593	142939	POND
43	Polygon	148	BLAINE	650' S OF FLANDERS CT NE		RADISSON RD	W	CSAH 52	0.14	519117	142354	POND
44	Polygon	149	BLAINE	0.20 S OF FLANDERS CT NE		RADISSON RD	E	CSAH 52	0.2	519297	141795	POND
45	Polygon	150	BLAINE	0.40 S OF FLANDERS CT NE		RADISSON RD	E	CSAH 52	0.14	519217	140933	POND
46	Polygon	151	BLAINE	0.62 S OF FLANDERS CT NE		RADISSON RD	NE	CSAH 52	0.17	519235	139767	POND
51	Polygon	156	BLAINE	BETWEEN QUINCY BLVD AND ABLE ST		109TH AVE	N	CSAH 12	0.46	504187	148644	POND
63	Polygon	168	BLAINE	SW OF CSAH 52 & CR 105		95TH AVE NE	S	CSAH 52	1.21	521352	138900	POND
64	Polygon	169	BLAINE	I-35W LNB EXIT RAMP		95TH AVE NE	N	CSAH 52	1.61	521393	139315	POND
65	Polygon	171	BLAINE	BETWEEN ABLE ST AND TYLER CT		109TH AVE	S	CSAH 12	1.57	505271	147606	LAKE
66	Polygon	172	BLAINE	S OF 119TH AVE NE		RADISSON RD	W	CSAH 52	1.08	514734	153830	
67	Polygon	173	BLAINE	S OF LAKES PKWY NE		RADISSON RD	E	CSAH 52	0.91	515505	154441	
69	Polygon	176	BLAINE	N OF 101ST AVE NE		RADISSON RD	N	CSAH 52	0.89	518793	143105	POND
70	Polygon	177	BLAINE	0.20 S OF 125TH AVE		LEXINGTON AVE	E	CSAH 17	0.82	526907	157784	
72	Polygon	179	BLAINE	550' N OF COUNTY ROAD J		NAPLES ST	E	CSAH 23	1.39	521552	133063	POND
73	Polygon	180	BLAINE	550' N OF COUNTY ROAD J		NAPLES ST	W	CSAH 23	0.38	521230	133196	POND
90	Polygon	199	BLAINE	100' NW OF UNIVERSITY AVE AND CSAH 10 INTERSECTION		UNIVERSITY AVE	S	CSAH 51	2.33	500196	135566	POND
91	Polygon	200	BLAINE	200' S OF LEB ONRAMP TO TH-10	SOUTH OF NOISE WALL	UNIVERSITY AVE	E	CSAH 51	0.47	500370	138287	POND
104	Polygon	211	BLAINE	450' W OF PHEASANT RIDGE DR		109TH AVE	S	CSAH 12	1.26	527718	148157	POND
105	Polygon	212	BLAINE	300' W OF PHEASANT RIDGE DR		109TH AVE	S	CSAH 12	2.34	528536	148110	POND
107	Polygon	214	BLAINE	230' W OF CORAL SEA ST		85TH AVE NE	N	CSAH 32	1	517294	132659	POND
111	Polygon	220	BLAINE	600' E OF NAPLES ST		85TH AVE	N	CSAH 32	0.51	521900	132635	POND
123	Polygon	230	BLAINE	200' E OF QUINCY BLVD		109TH AVE	S	CSAH 12	0.09	504193	148304	POND
124	Polygon	231	BLAINE	1000' MANKATO ST		109TH AVE	N	CSAH 12	2.01	511264	148958	LAKE
128	Polygon	235	BLAINE	300' E OF QUAIL CREEK DR		RADISSON RD	S	CSAH 52	2.58	513490	163634	
136	Polygon	242	BLAINE	@ SE CLOVERLEAF TH10 LEB TH610 TO LNB CSAH 51		UNIVERSITY AVE	E	CSAH 51	1.17	500228	138727	POND
140	Polygon	247	BLAINE	100' N OF MAIN ST		RADISSON RD	W	CSAH 52	-2.1	512093	159241	
141	Polygon	248	BLAINE	450' S OF 127TH LN NE		127TH LN NE	W	CSAH 52	0.22	512024	160445	
146	Polygon	254	BLAINE	1030' W OF HAMLINE AVE	CONNECTS TO DRAINAGE DITCH	95TH AVE NE	S	CSAH 52	0.02	522894	139010	POND
147	Polygon	253	BLAINE	950' W OF HAMLINE AVE		95TH AVE NE	S	CSAH 52	0.24	522997	138895	POND
148	Polygon	255	BLAINE	60' WEST OF HAMLINE TO 780' W OF HAMLINE		95TH AVE NE	S	CSAH 52	0.57	523478	139027	POND
162	Polygon	269	BLAINE	200' S OF 111TH AVE NE		UNIVERSITY AVE	E	CSAH 51	-2.1	500230	149605	
170	Polygon	277	BLAINE	1400' N OF 125TH AVE NE		LEXINGTON AVE	W	CSAH 17	0.88	526486	160284	
180	Polygon	2873	BLAINE	1700' E OF DAVENPORT ST NE		109TH AVE	S	CSAH 9	0	0	0	POND
47	Polygon	152	BURNS	250' N OF 199TH AVE		NOWTHEN BLVD	W	CSAH 5	0.52	447522	208565	
57	Polygon	162	BURNS	0.20 N OF PINNAKER RD NW		NORRIS LAKE RD	N	CSAH 24	0.42	452708	222059	
58	Polygon	163	BURNS	500' W OF CLEARY RD NW		NORRIS LAKE RD	N	CSAH 24	0.79	461389	222535	
59	Polygon	164	BURNS	SW QUAD OF CLEARY RD & NORRIS LAKE RD		NORRIS LAKE RD	S	CSAH 24	2.29	461792	222344	
78	Polygon	186	CENTERVILLE	300' W OF PELTIER LAKE DR	7261 MAIN ST	MAIN ST	N	CSAH 14	0.08	552026	149052	
79	Polygon	187	CENTERVILLE	150' N OF LAKELAND CIR N		MAIN ST	E	CSAH 14	0.31	553348	148699	POND
80	Polygon	188	CENTERVILLE	300' N OF LAKELAND CIR S		MAIN ST	E	CSAH 14	0.68	553727	148259	POND
81	Polygon	189	CENTERVILLE	100' W OF DUPREE ST		MAIN ST	N	CSAH 14	0.28	555042	147109	POND
82	Polygon	190	CENTERVILLE	240' E OF DUPREE ST		MAIN ST	S	CSAH 14	0.15	555423	146849	POND
83	Polygon	191	CENTERVILLE	350' E OF PETERSON TR	S OF CITY HALL	MAIN ST	S	CSAH 14	0.65	556724	146591	POND

FID	Shape *	Id	City	Notes	Comment	Street	SideofRoad	ROUTE	ACRES	X	Y	TYPE
84	Polygon	192	CENTERVILLE	330' E OF 20TH AVE	LARGE POND WEST OF POND 19	MAIN ST	S	CSAH 14	1.04	558594	146607	POND
85	Polygon	193	CENTERVILLE	650' E OF 20TH AVE	LARGE POND EAST OF POND 19	MAIN ST	S	CSAH 14	1.72	558948	146399	POND
113	Polygon	217	CENTERVILLE	60' N OF MOUND TRAIL		MAIN ST	W	CSAH 14	0.05	550883	149827	
114	Polygon	219	CENTERVILLE	180' N OF MOUND TRAIL		MAIN ST	W	CSAH 14	0.05	550920	149720	
161	Polygon	268	CENTERVILLE	500' N OF DUPRE RD		CENTERVILLE ROAD	E	CSAH 21	0.09	554449	143616	POND
27	Polygon	129	CIRCLE PINES	SE QUAD OF CSAH 23 & CSAH 14		LAKE DR	SE	CSAH 23	0.3	526828	138799	POND
52	Polygon	157	CIRCLE PINES	0.20 E OF LEXINGTON		LAKE DR	S	CSAH 23	6.05	527701	138923	POND
53	Polygon	158	CIRCLE PINES	0.20 W OF HODGSON RD		LAKE DR	N	CSAH 23	0.47	532674	142637	POND
129	Polygon	236	COL HIEGHTS	800' E OF TH-65		40TH AVE	N	CSAH 2	7.15	506102	102604	POND
55	Polygon	160	COLUMBUS	0.25 S OF POTOMAC ST		LAKE DR	W	CSAH 23	0.5	547410	173288	
56	Polygon	161	COLUMBUS	INTERSECTION OF CROSSWAYS LAKE DR		LAKE DR	W	CSAH 23	0.22	549300	176882	
74	Polygon	182	COON RAPIDS	BETWEEN 106TH AVE NW & 107TH AVE NW		HANSON BLVD	E	CSAH 78	0.43	486904	146784	POND
75	Polygon	184	COON RAPIDS	S OF 106TH AVE NW		HANSON BLVD	E	CSAH 78	0.06	486880	146444	POND
76	Polygon	183	COON RAPIDS	500' E OF CROOKED LAKE BLVD		COON RAPIDS BLVD	S	CSAH 1	0.17	481722	149297	
86	Polygon	194	COON RAPIDS	550' W OF IBIS ST NW		MAIN ST	N	CSAH 14	0.67	488060	159284	
87	Polygon	195	COON RAPIDS	160' S OF 128TH LN NW	600' E OF CSAH 78	HANSON BLVD	E	CSAH 78	1.33	490479	161363	
95	Polygon	202	COON RAPIDS	1500' WEST OF CSAH 51		MAIN ST	N	CSAH 14	1.63	498820	159225	
100	Polygon	207	COON RAPIDS	100' N OF 131ST LN NW		ROUND LAKE BLVD	W	CSAH 9	5.13	476101	163774	
106	Polygon	213	COON RAPIDS	500' N OF FOLEY BLVD		EAST RIVER RD	E	CSAH 1	2.1	493858	138468	WETLAND
108	Polygon	215	COON RAPIDS	285' E OF OLIVE ST		NORTHDALE BLVD	S	CSAH 11	0.32	495694	152130	
115	Polygon	221	COON RAPIDS	270' N OF S'LY LEG OF NORTHDALE BLVD		HANSON BLVD	W	CSAH 78	0.87	487047	153232	
116	Polygon	223	COON RAPIDS	350' N OF ROBINSON DR		HANSON BLVD	E	CSAH 78	0.75	487549	153056	
117	Polygon	225	COON RAPIDS	650' S OF N'LY LEG NORTHDALE BLVD		HANSON BLVD	W	CSAH 78	0.32	487287	153876	
118	Polygon	226	COON RAPIDS	360' E OF XEON ST		NORTHDALE BLVD	N	CSAH 11	0.21	492290	153358	
122	Polygon	229	COON RAPIDS	@ YUKON ST - 300' E OF CL		COON CREEK BLVD	E	CSAH 18	0.25	484293	162217	
135	Polygon	243	COON RAPIDS	@ SE CLOVERLEAF LEB TH610 OFFRAMP TO LNB TH47/10					1.08	499424	138782	POND
138	Polygon	245	COON RAPIDS	100' W OF RAVEN ST		NORTHDALE BLVD	S	CSAH 11	0.2	485505	153758	
149	Polygon	256	COON RAPIDS	1800' E OF CROOKED LAKE BLVD		MAIN STREET	N	CSAH 14	0.22	484802	159424	
150	Polygon	257	COON RAPIDS	1500' E OF HANSON		MAIN STREET	N	CSAH 14	0.63	491234	159192	
151	Polygon	258	COON RAPIDS	80' E OF SHENANDOAH BLVD		MAIN STREET	N	CSAH 14	0.68	486932	159428	
152	Polygon	259	COON RAPIDS	1300' S OF 152 AVE		MAIN STREET	W	CSAH 14	0.4	458707	176182	
163	Polygon	270	COON RAPIDS	200' S OF 115TH AVE		UNIVERSITY AVE	W	CSAH 51	-6.9	499944	152194	
164	Polygon	271	COON RAPIDS	500' S OF 117TH AVE		UNIVERSITY AVE	W	CSAH 51	-3.2	500001	153146	
165	Polygon	272	COON RAPIDS	AT 113TH AVE NE	ELEMENTARY SCHOOL	UNIVERSITY AVE	W	CSAH 51	3.25	499683	150738	
166	Polygon	273	COON RAPIDS	BETWEEN 104TH LN AND 105TH AVE NW		FOLEY BLVD	E	CSAH 11	0.18	497961	145585	POND
167	Polygon	274	COON RAPIDS	100' N OF 105TH LN NW		FOLEY BLVD	E	CSAH 11	0.21	497785	146251	POND
11	Polygon	112	COONRAPIDS	NW QUAD OF MAINST & COON CREEK BLVD		MAIN STREET	NW	CSAH 14	1.99	482252	159335	POND
12	Polygon	113	COONRAPIDS	NE QUAD OF MAIN ST & COON CREEK BLVD		MAIN STREET	NE	CSAH 14	5.1	483379	159466	POND
13	Polygon	114	COONRAPIDS	100' W OF FLINTWOOD		MAIN STREET	N	CSAH 14	0.44	498023	159119	POND
14	Polygon	115	COONRAPIDS	200' S OF 124TH LN NW		UNIVERSITY AVE	W	CSAH 51	4.37	499873	157469	POND
48	Polygon	153	COONRAPIDS	SE QUAD OF HANSON AND COON RAPIDS BLVD		COON RAPIDS BLVD	SE	CSAH 1	0.07	486855	145627	POND
49	Polygon	154	COONRAPIDS	BETWEEN ELDORADO ST AND DAKOTA ST		COON RAPIDS BLVD	N	CSAH 1	0.09	472954	155051	
50	Polygon	155	COONRAPIDS	950' W OF HANSON BLVD		NORTHDALE BLVD	NE	CSAH 11	0.23	486532	153802	
159	Polygon	266	EAST BETHEL	200' W OF SANDY DR		221ST AVE	N	CR 74	0.07	508846	222292	
160	Polygon	267	EAST BETHEL	200' W OF LSB TH-65		221ST AVE	N	CR 74	0.09	507487	222350	
60	Polygon	165	FRIDLEY	550' E OF COON RAPIDS BLVD		OSBORNE RD	N	CSAH 8	0.08	498937	125392	POND
61	Polygon	166	FRIDLEY	150' W OF COMMERCE LN NE		OSBORNE RD	N	CSAH 8	0.33	499605	125996	POND

FID	Shape *	Id	City	Notes	Comment	Street	SideofRoad	ROUTE	ACRES	X	Y	TYPE
71	Polygon	178	FRIDLEY	N OF 45TH AVE NE		MAIN ST	W	CSAH 102	0.27	499573	105550	POND
77	Polygon	185	FRIDLEY	200' S OF MISSISSIPPI BLVD ON 3RD ST NE	IN TOWNHOMES	MISSISSIPPI BLVD	S	CSAH 6	0.16	500317	118302	POND
126	Polygon	233	FRIDLEY	@ MCKINLEY ST	POND SOUTH OF PARK	MISSISSIPPI ST	S	CR 106	8.25	509733	117966	LAKE
133	Polygon	240	FRIDLEY	CLOVERLEAF OFFRAMP FROM LEB 694 TO CSAH 1		EAST RIVER ROAD	E	CSAH 1	0.68	496980	112081	POND
134	Polygon	241	FRIDLEY	CLOVERLEAF LNB CSAH 1 ONRAMP TO LWB 694		EAST RIVER ROAD	E	CSAH 1	0.75	497208	112627	POND
137	Polygon	244	FRIDLEY	0.5 MILES N OF 44TH AVE	CONCRETE RETENTION POND	EAST RIVER ROAD	E	CSAH 1	1.47	498036	105166	POND
145	Polygon	252	FRIDLEY	SW QUAD OF 85TH AVE AND SPRINGBROOK DR		85TH AVE	S	CR 132	0.34	499812	132392	POND
127	Polygon	234	HAM LAKE	50' W OF CHISHOLM ST		CROSSTOWN BLVD	N	CSAH 18	0.25	509139	192050	
130	Polygon	237	HAM LAKE	@ 1536 CROSSTOWN BLVD E OF DRIVEWAY		CROSSTOWN BLVD	S	CSAH 18	0.18	509256	191707	
131	Polygon	238	HAM LAKE	660' W OF JOHNSON ST		CROSSTOWN BLVD	S	CSAH 18	0.3	507030	192034	
132	Polygon	239	HAM LAKE	80' E OF LNB TH-65		CROSSTOWN BLVD	S	CSAH 18	0.23	508426	191944	
142	Polygon	249	HAM LAKE	930' W OF RADISSON RD		BUNKER LAKE BLVD	S	CSAH 116	1.53	512568	166770	
143	Polygon	250	HAM LAKE	500' E OF LNB TH-65		BUNKER LAKE BLVD	N	CSAH 116	0.14	508829	167054	
144	Polygon	251	HAM LAKE	230' W OF ISANTI ST		BUNKER LAKE BLVD	N	CSAH 116	0.4	511229	167053	
168	Polygon	275	HAM LAKE	600' S OF 139TH LN NE		LEXINGTON AVE	E	CSAH 17	0.67	526916	168035	
169	Polygon	276	HAM LAKE	200' S OF 136TH AVE NE		LEXINGTON AVE	E	CSAH 17	0.75	526956	165886	
171	Polygon	278	HAM LAKE	200' N OF 133RD LN NE		LEXINGTON AVE	E	CSAH 17	0.97	526893	164641	
172	Polygon	279	HAM LAKE	150' N OF BUNKER LAKE BLVD		LEXINGTON AVE	W	CSAH 17	0.23	526607	169588	
139	Polygon	246	HAMLAKE	870' E OF RADISSON RD		BUNKER LAKE BLVD	S	CSAH 116	0.59	514419	167012	
22	Polygon	124	LINO LAKES	600' S OF PHELPS RD		OTTERLAKE RD	W	CR 84	1	561744	144631	POND
23	Polygon	125	LINO LAKES	PHELPS RD INTERSECTION		OTTERLAKE RD	E	CR 84	2.4	562511	145181	POND
29	Polygon	131	LINO LAKES	S OF LAKOTA TRL INTERSECTION		HODGSON RD	E	CSAH 49	1.69	536300	137833	POND
54	Polygon	159	LINO LAKES	N OF 79TH ST W		LAKE DR	W	CSAH 23	0.65	541768	157607	
96	Polygon	203	LINO LAKES	500' EAST OF WOODDUCK TRAIL		MAIN ST	S	CSAH 14	0.07	539910	158778	
97	Polygon	204	LINO LAKES	100' S OF 4TH AVE		APOLLO DR	W	CSAH 12	0.5	537389	151919	
101	Polygon	208	LINO LAKES	100' N OF MARSHAN LN		LAKE DR	E	CSAH 23	0.52	539253	151672	
102	Polygon	209	LINO LAKES	100' S OF MARSHAN LN		LAKE DR	E	CSAH 23	0.11	539081	151468	
103	Polygon	210	LINO LAKES	200' N OF LEB 35W ONRAMP		LAKE DR	W	CSAH 23	0.31	539792	153464	
109	Polygon	216	LINO LAKES	150' N OF LILAC ST		APOLLO DR	W	CSAH 12	0.63	538908	153770	
121	Polygon	228	LINO LAKES	180' N OF 106TH AVE		SUNSET AVE	E	CR 53	0.05	532019	146315	POND
153	Polygon	261	LINO LAKES	900' ALONG OAK LN TO THE EAST OF LAKE DR		LAKE DR	E	CSAH 23	0.54	542319	156427	
154	Polygon	260	LINO LAKES	350' ALONG KELLY ST TO THE SOUTH OF LAKE DR		LAKE DR	E	CSAH 23	1.08	542778	157639	
98	Polygon	205	RAMSEY	600' N OF TH-10	430' SE ALONG NORTH SIDE RR	SUNFISH LAKE BLVD	E	CSAH 57	0.11	458538	167999	
99	Polygon	206	RAMSEY	200' S OF CIVIC CENTER DR		RAMSEY BLVD	W	CSAH 56	2.1	452481	170802	
110	Polygon	218	RAMSEY	300' W OF INDUSTRY AVE		BUNKER LAKE BLVD	N	CSAH 116	0.42	465622	169066	
155	Polygon	261	RAMSEY	300' E OF BASALT ST NW		BUNKER LAKE BLVD	N	CSAH 116	1.12	457067	170383	
156	Polygon	262	RAMSEY	200' E OF BASALT ST NW		BUNKER LAKE BLVD	S	CSAH 116	0.48	456787	170293	
157	Polygon	263	RAMSEY	50' W OF MAGNESIUM ST NW		BUNKER LAKE BLVD	N	CSAH 116	0.13	461581	169451	
158	Polygon	265	RAMSEY	500' W OF MAGNESIUM ST NW		BUNKER LAKE BLVD	S	CSAH 116	2.49	460876	169413	
42	Polygon	147	SPRINGLAKEP	INT OF OLD CENTRAL AVE NE (CSAH 35)		COUNTY ROAD 10	S	CSAH 10	0.24	509875	129507	POND

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

MS4 Pond, Wetland, and Lake Inventory Form

Municipal Separate Storm Sewer System (MS4) Program

Doc Type: Plans/Specifications/Maps

Name of MS4 Permittee	Date form completed	Unique ID Number	Type of Feature (Pond, Wetland or Lake)	Feature Common Name (If Applicable)	Y Coordinate (Latitude) Decimal Degrees	X Coordinate (Longitude) Decimal Degrees
Anoka County	7/16/2015	101	Pond		45.23927543	-93.34790033
Anoka County	7/16/2015	102	Pond		45.22009472	-93.34371705
Anoka County	7/16/2015	103	Pond		45.21926035	-93.32651022
Anoka County	7/16/2015	104	Pond		45.21678387	-93.32654642
Anoka County	7/16/2015	105	Pond		45.21664332	-93.32784615
Anoka County	7/16/2015	106	Pond		45.21504902	-93.32952841
Anoka County	7/16/2015	107	Pond		45.21987689	-93.33703851
Anoka County	7/16/2015	108	Pond		45.22997508	-93.32128581
Anoka County	7/16/2015	109	Pond		45.23679568	-93.34868088
Anoka County	7/16/2015	110	Pond		45.23403341	-93.356758
Anoka County	7/16/2015	111	Pond		45.21917846	-93.33556698
Anoka County	7/16/2015	112	Pond		45.19798457	-93.33551036
Anoka County	7/16/2015	113	Pond		45.19834639	-93.33113918
Anoka County	7/16/2015	114	Pond		45.19741269	-93.27433528
Anoka County	7/16/2015	115	Pond		45.19288784	-93.26715925
Anoka County	7/16/2015	117	Pond		45.19775806	-93.23970028
Anoka County	7/16/2015	118	Pond		45.18836991	-93.16233258
Anoka County	7/16/2015	119	Pond		45.1791618	-93.16365619
Anoka County	7/16/2015	120	Pond		45.17551035	-93.16234832
Anoka County	7/16/2015	121	Pond		45.17085383	-93.16262435
Anoka County	7/16/2015	122	Pond		45.14663875	-93.16401324
Anoka County	7/16/2015	123	Pond		45.12479864	-93.16547036
Anoka County	7/16/2015	124	Pond		45.15742863	-93.02733422
Anoka County	7/16/2015	125	Pond		45.15893073	-93.02435479
Anoka County	7/16/2015	126	Pond		45.14307996	-93.18965815
Anoka County	7/16/2015	127	Pond		45.14311136	-93.18744535
Anoka County	7/16/2015	128	Pond		45.14192676	-93.18769113
Anoka County	7/16/2015	129	Pond		45.14163796	-93.16270469
Anoka County	7/16/2015	130	Pond		45.2329347	-93.29812098
Anoka County	7/16/2015	131	Pond		45.13894933	-93.12600604
Anoka County	7/16/2015	132	Pond		45.16026023	-93.23091082
Anoka County	7/16/2015	133	Pond		45.16018263	-93.21455639
Anoka County	7/16/2015	135	Pond		45.16430164	-93.21405254
Anoka County	7/16/2015	136	Pond		45.17073348	-93.20973528

Name of MS4 Permittee	Date form completed	Unique ID Number	Type of Feature (Pond, Wetland or Lake)	Feature Common Name (If Applicable)	Y Coordinate (Latitude) Decimal Degrees	X Coordinate (Longitude) Decimal Degrees
Anoka County	7/16/2015	137	Pond		45.1892495	-93.21266824
Anoka County	7/16/2015	138	Pond		45.19016568	-93.21306298
Anoka County	7/16/2015	139	Pond		45.19253623	-93.21532972
Anoka County	7/16/2015	140	Pond		45.19414997	-93.21795415
Anoka County	7/16/2015	141	Pond		45.19625694	-93.2197211
Anoka County	7/16/2015	143	Pond		45.15519084	-93.21363457
Anoka County	7/16/2015	144	Pond		45.15374852	-93.2084964
Anoka County	7/16/2015	146	Pond		45.15301657	-93.19460204
Anoka County	7/16/2015	147	Pond		45.11619544	-93.2284168
Anoka County	7/16/2015	148	Pond		45.1514109	-93.19257315
Anoka County	7/16/2015	149	Pond		45.14987739	-93.19187751
Anoka County	7/16/2015	150	Pond		45.14751355	-93.19219065
Anoka County	7/16/2015	151	Pond		45.14431573	-93.19212506
Anoka County	7/16/2015	152	Pond		45.33283444	-93.47070877
Anoka County	7/16/2015	153	Pond		45.16039981	-93.31762197
Anoka County	7/16/2015	154	Pond		45.18620831	-93.37155526
Anoka County	7/16/2015	155	Pond		45.18281918	-93.31889455
Anoka County	7/16/2015	156	Pond		45.16868417	-93.25043382
Anoka County	7/16/2015	157	Pond		45.1419749	-93.15932106
Anoka County	7/16/2015	158	Pond		45.1521408	-93.14002738
Anoka County	7/16/2015	159	Pond		45.19315137	-93.10466411
Anoka County	7/16/2015	160	Pond		45.23612293	-93.0826423
Anoka County	7/16/2015	161	Pond		45.24596728	-93.07527312
Anoka County	7/16/2015	162	Pond		45.36987455	-93.45066451
Anoka County	7/16/2015	163	Pond		45.37122921	-93.41689308
Anoka County	7/16/2015	164	Pond		45.37070746	-93.41532374
Anoka County	7/16/2015	165	Pond		45.10491629	-93.27078328
Anoka County	7/16/2015	166	Pond		45.10657284	-93.2681964
Anoka County	7/16/2015	167	Pond		45.27337383	-93.38938827
Anoka County	7/16/2015	168	Pond		45.14193232	-93.18392448
Anoka County	7/16/2015	169	Pond		45.14307035	-93.18376395
Anoka County	7/16/2015	171	Lake		45.16583677	-93.24623221
Anoka County	7/16/2015	172	Pond		45.18289361	-93.20952925
Anoka County	7/16/2015	173	Pond		45.18456774	-93.20653761
Anoka County	7/16/2015	174	Pond		45.21591501	-93.32558323
Anoka County	7/16/2015	176	Pond		45.15347133	-93.19382628
Anoka County	7/16/2015	177	Pond		45.19370403	-93.16230344
Anoka County	7/16/2015	178	Pond		45.05049892	-93.26831871
Anoka County	7/16/2015	179	Pond		45.1259237	-93.18317284
Anoka County	7/16/2015	180	Pond		45.12628936	-93.18441977

Name of MS4 Permittee	Date form completed	Unique ID Number	Type of Feature (Pond, Wetland or Lake)	Feature Common Name (If Applicable)	Y Coordinate (Latitude) Decimal Degrees	X Coordinate (Longitude) Decimal Degrees
Anoka County	7/16/2015	182	Pond		45.16357297	-93.31743485
Anoka County	7/16/2015	184	Pond		45.16264048	-93.31752706
Anoka County	7/16/2015	183	Pond		45.17045417	-93.33753202
Anoka County	7/16/2015	185	Pond		45.08547181	-93.26543946
Anoka County	7/16/2015	186	Pond		45.169626	-93.06496019
Anoka County	7/16/2015	187	Pond		45.16864873	-93.05983829
Anoka County	7/16/2015	188	Pond		45.16743936	-93.05837333
Anoka County	7/16/2015	189	Pond		45.16427607	-93.05328703
Anoka County	7/16/2015	190	Pond		45.16356025	-93.05181271
Anoka County	7/16/2015	191	Pond		45.16284308	-93.04677198
Anoka County	7/16/2015	192	Pond		45.16287276	-93.03952265
Anoka County	7/16/2015	193	Pond		45.16229958	-93.03815263
Anoka County	7/16/2015	194	Pond		45.19785607	-93.31298128
Anoka County	7/16/2015	195	Pond		45.20356112	-93.3036018
Anoka County	7/16/2015	195	Pond		45.21881778	-93.30287829
Anoka County	7/16/2015	196	Pond		45.21883773	-93.30039486
Anoka County	7/16/2015	199	Pond		45.13281879	-93.26590726
Anoka County	7/16/2015	200	Pond		45.14028116	-93.2652329
Anoka County	7/16/2015	197	Pond		45.22099456	-93.30514589
Anoka County	7/16/2015	198	Pond		45.220682	-93.30492061
Anoka County	7/16/2015	201	Pond		45.22678203	-93.38943939
Anoka County	7/16/2015	202	Pond		45.19770356	-93.27124381
Anoka County	7/16/2015	203	Pond		45.19637281	-93.11186187
Anoka County	7/16/2015	204	Pond		45.17757493	-93.1216882
Anoka County	7/16/2015	205	Pond		45.22165288	-93.42756271
Anoka County	7/16/2015	206	Pond		45.22930448	-93.45109207
Anoka County	7/16/2015	207	Pond		45.21014158	-93.35938957
Anoka County	7/16/2015	208	Pond		45.17688812	-93.11446224
Anoka County	7/16/2015	209	Pond		45.17632954	-93.11513065
Anoka County	7/16/2015	210	Pond		45.18179986	-93.11235897
Anoka County	7/16/2015	211	Pond		45.16729913	-93.15920755
Anoka County	7/16/2015	212	Pond		45.1671672	-93.15603652
Anoka County	7/16/2015	213	Wetland		45.14077508	-93.29046735
Anoka County	7/16/2015	214	Pond		45.12482661	-93.1996699
Anoka County	7/16/2015	215	Pond		45.17824445	-93.28336367
Anoka County	7/16/2015	216	Pond		45.18264364	-93.11578477
Anoka County	7/16/2015	218	Pond		45.22461451	-93.40007967
Anoka County	7/16/2015	220	Pond		45.12474891	-93.18182641
Anoka County	7/16/2015	222	Pond		45.21260451	-93.30746433
Anoka County	7/16/2015	217	Pond		45.17175918	-93.06938428

Name of MS4 Permittee	Date form completed	Unique ID Number	Type of Feature (Pond, Wetland or Lake)	Feature Common Name (If Applicable)	Y Coordinate (Latitude) Decimal Degrees	X Coordinate (Longitude) Decimal Degrees
Anoka County	7/16/2015	219	Pond		45.17146548	-93.06924184
Anoka County	7/16/2015	221	Pond		45.18125685	-93.31689605
Anoka County	7/16/2015	223	Pond		45.18077501	-93.31494897
Anoka County	7/16/2015	225	Pond		45.18302342	-93.31596689
Anoka County	7/16/2015	226	Pond		45.18160954	-93.29656483
Anoka County	7/16/2015	224	Pond		45.2507831	-93.30565132
Anoka County	7/16/2015	227	Pond		45.25042894	-93.30675759
Anoka County	7/16/2015	228	Pond		45.16223052	-93.14254413
Anoka County	7/16/2015	229	Pond		45.20589292	-93.32760185
Anoka County	7/16/2015	230	Pond		45.16775171	-93.25041082
Anoka County	7/16/2015	231	Lake		45.16953811	-93.22299589
Anoka County	7/16/2015	232	Pond		45.24769639	-93.30160381
Anoka County	7/16/2015	233	Lake	Harris Lake	45.0845441	-93.22898769
Anoka County	7/16/2015	234	Pond		45.28771959	-93.23116108
Anoka County	7/16/2015	235	Pond		45.20978328	-93.21432875
Anoka County	7/16/2015	236	Pond		45.04241694	-93.24306163
Anoka County	7/16/2015	237	Pond		45.28677879	-93.23070712
Anoka County	7/16/2015	238	Pond		45.28767796	-93.23935469
Anoka County	7/16/2015	239	Pond		45.28742971	-93.23393129
Anoka County	7/16/2015	240	Pond		45.06840989	-93.27835457
Anoka County	7/16/2015	241	Pond		45.0699074	-93.27747246
Anoka County	7/16/2015	243	Pond		45.14163869	-93.26889874
Anoka County	7/16/2015	242	Pond		45.14148787	-93.26578314
Anoka County	7/16/2015	244	Pond		45.04944554	-93.27426516
Anoka County	7/16/2015	245	Pond		45.18269661	-93.32287706
Anoka County	7/16/2015	246	Pond		45.21904567	-93.21071537
Anoka County	7/16/2015	247	Pond		45.1977379	-93.21975867
Anoka County	7/16/2015	248	Pond		45.20103996	-93.22002362
Anoka County	7/16/2015	249	Pond		45.21838528	-93.21789853
Anoka County	7/16/2015	250	Pond		45.21916942	-93.23240666
Anoka County	7/16/2015	251	Pond		45.2191635	-93.22309372
Anoka County	7/16/2015	252	Pond		45.12411403	-93.26739497
Anoka County	7/16/2015	254	Pond		45.14222951	-93.17794853
Anoka County	7/16/2015	253	Pond		45.14191381	-93.17754988
Anoka County	7/16/2015	255	Pond		45.14227435	-93.17568536
Anoka County	7/16/2015	256	Pond		45.19823419	-93.32561928
Anoka County	7/16/2015	257	Pond		45.19760809	-93.30066936
Anoka County	7/16/2015	258	Pond		45.19824913	-93.31735708
Anoka County	7/16/2015	259	Pond		45.24409539	-93.42696995
Anoka County	7/16/2015	261	Pond		45.18991218	-93.10253629

Name of MS4 Permittee	Date form completed	Unique ID Number	Type of Feature (Pond, Wetland or Lake)	Feature Common Name (If Applicable)	Y Coordinate (Latitude) Decimal Degrees	X Coordinate (Longitude) Decimal Degrees
Anoka County	7/16/2015	260	Pond		45.1932335	-93.10074645
Anoka County	7/16/2015	261	Pond		45.22818274	-93.4332901
Anoka County	7/16/2015	262	Pond		45.22793433	-93.43437606
Anoka County	7/16/2015	263	Pond		45.22565097	-93.41576458
Anoka County	7/16/2015	265	Pond		45.22554315	-93.41850029
Anoka County	7/16/2015	266	Pond		45.37065617	-93.2322493
Anoka County	7/16/2015	267	Pond		45.37081669	-93.23753672
Anoka County	7/16/2015	268	Pond		45.15470081	-93.05562129
Anoka County	7/16/2015	269	Pond		45.17132086	-93.26577492
Anoka County	7/16/2015	270	Pond		45.17842119	-93.26688381
Anoka County	7/16/2015	271	Pond		45.18103205	-93.26666279
Anoka County	7/16/2015	272	Pond		45.17442811	-93.26789579
Anoka County	7/16/2015	273	Pond		45.16029573	-93.27457064
Anoka County	7/16/2015	274	Pond		45.16212219	-93.27525316
Anoka County	7/16/2015	275	Pond		45.22181717	-93.16221708
Anoka County	7/16/2015	276	Pond		45.21592345	-93.16207266
Anoka County	7/16/2015	277	Pond		45.20056172	-93.16392401
Anoka County	7/16/2015	278	Pond		45.21250929	-93.16232336
Anoka County	7/16/2015	279	Pond		45.22607732	-93.16340847
Anoka County	7/16/2015	280	Pond		45.22844014	-93.3681982
Anoka County	7/16/2015	281	Pond		45.22041937	-93.36391928
Anoka County	7/16/2015	282	Pond		45.22120955	-93.36669521
Anoka County	7/16/2015	283	Pond		45.22890619	-93.37142419
Anoka County	7/16/2015	284	Pond		45.22649182	-93.37826566
Anoka County	7/16/2015	285	Pond		45.21982337	-93.36171805
Anoka County	7/16/2015	286	Pond		45.2288198	-93.38142163

Managing Stormwater Sediment Best Management Practice Guidance for Municipalities

Minnesota Pollution Control Agency

June 2012

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Contents

Stormwater Sediment Best Management Practices

These stormwater sediment best management practices (BMPs) provide guidance for the removal of sediment from stormwater collection and conveyance systems. This guidance document will help you think through important steps associated with sediment removal projects. These may include:

- Who is responsible for managing stormwater sediment
- Land use within a drainage area
- Sampling sediment and what laboratory analysis is required
- How to calculate benzo[a]pyrene (B[a]P) equivalents for carcinogenic polycyclic aromatic hydrocarbons (cPAHs)
- Management requirements for contaminated sediment
- Where contaminated stormwater sediments are accepted for disposal
- Who to contact if you have questions

This document is intended to help those responsible for operation and maintenance of stormwater systems determine when sediment removal is needed, and what steps to consider during the course of managing a sediment removal project. This is guidance. It is not a comprehensive list of everything you may need to do when managing a sediment removal project. Other considerations may also include:

- Geographic or environmental sensitivities
- Landscape variations, and soil types
- Management of native or invasive species
- A wide range of variables that may be encountered from one municipality to the next, or one project to the next

This guidance was developed to give local units of government, and others responsible for managing stormwater collection and conveyance systems, a big picture understanding about how to manage sediment removal projects and what you may need to consider before, during, and after a project.

This guidance was developed with special assistance from the cities of Burnsville, Circle Pines, Maplewood, Roseville, St. Paul, White Bear Lake, and Woodbury, Minnesota.

Background

Action was taken during the 2009 Minnesota legislative session which included funding to conduct research on stormwater pond sediment contamination and to help Minnesota cities clean-out stormwater contaminated ponds. *(House File Number 1231 Passed by the Minnesota Legislature on May 18, 2009 and Approved by Governor Tim Pawlenty on May 22, 2009.)*

Research concluded that polycyclic hydrocarbons (PAHs) are often responsible for the greatest contamination problems in stormwater pond sediment. PAHs persist in the environment and pose a risk to animals, plants, and people at elevated concentrations. These contaminants are formed by the incomplete combustion of organic materials, such as wood, oil, and coal, as well as occurring naturally in crude oil and coal (Crane et al. 2010). Coal tar-based sealants are a major source of PAHs in urban sediments (Mahler et al. 2012). The Minnesota Pollution Control Agency's (MPCA) research determined that coal tar-based sealants were the most important source of PAHs (58.2 percent), followed by oil-based PAHs (15.0 percent) and vehicle emission sources (14.7 percent).

The legislation also provided funding for municipalities who agree to pass ordinances banning or restricting the use of coal tar-based sealants; as of June 2012, 20 municipalities have passed such ordinances (http://www.pca.state.mn.us/index.php/view-document.html?gid=16180).

The 2009 legislation also directed the MPCA to develop BMPs to avoid or mitigate impacts of PAH contamination from coal tar-based sealants. The MPCA provides guidance for the operation and maintenance of stormwater conveyance and collection systems. Stormwater collection and conveyance systems are commonly referred to as stormwater ponds, stormwater control devices, wet detention basins, or National Urban Runoff Program (NURP) ponds.

This document provides guidance for sediment removal projects from stormwater ponds of any sort. Sediment may also be generated in other stormwater devices such as sumps, traps, pipes, or other conveyance structures. This guidance may be adapted for other situations to determine representative concentrations of contaminants of potential concern. The analytical component outlined in Appendix A may be applied to other sediment sampling situations, but the MPCA does not have specific sampling guidance at this time for those situations and it is not necessary to follow this guidance for other types of sediment removal projects. The sampling guidance provided in Appendix A is strictly for sampling sediment from stormwater ponds.

These BMPs will continue to be updated to include new information and data about stormwater sediment and will be incorporated as a chapter in the MPCA Stormwater Manual once updates to the manual are completed. The MPCA Stormwater Manual can be found on the MPCA website at: http://www.pca.state.mn.us/index.php/view-document.html?gid=8937.

Sediment removal cost

The high cost to manage contaminated stormwater sediment has brought operation and maintenance of stormwater ponds into the public spotlight. Unregulated sediment can be managed locally and without disposal restrictions that make them far less costly to manage. Disposal costs for a stormwater sediment removal project can be as much as three times more expensive depending on the type and level of contamination in the sediment. This emphasizes the value and importance of source control to reduce the loading of contamination into stormwater ponds.

Stormwater collection systems concentrate pollutants by design. These systems include:

- Wetlands converted for the specific purpose of conveying, treating, or otherwise managing stormwater
- Ponds, or small lakes which have been designated for the specific purpose of conveying, treating, or otherwise managing stormwater
- Structures engineered, built, constructed, and/or man-made devices for the specific purpose of conveying, treating, or otherwise managing stormwater.

Stormwater collection systems are intended to help protect infrastructure from flooding and to collect and concentrate pollutants to prevent them from reaching lakes, rivers, streams, wetlands, and other waters of the state where they could have a negative effect on water quality, aquatic animals, or human health. Managing contamination and pollutants in the sediment of stormwater collection systems should be expected. “Sampling is conducted to guide proper management of contaminated sediment”.

Stormwater sediment removal process

1. Inventory and maintenance needs
2. Evaluating and testing sediment
3. Engineering, contracting, and work plans
4. Excavating sediment
5. Site restoration
6. Records and documentation to keep on file.

1. Inventory and maintenance needs

Assessing need and planning sediment removal projects includes a number of steps that range from estimating lost capacity to notifying neighbors about plans to maintain the stormwater collection system. For municipalities who are managing dozens, or sometimes hundreds of stormwater ponds, starting with an inventory and a maintenance prioritization process is recommended.

Some municipalities find it helpful to develop a flowchart or other prioritization scheme to triage and track priority sediment removal projects. Topics of importance may include:

- Priorities identified by city inspections – sediment level, lost capacity, other needs.
- Natural wetland verses constructed ponds. Constructed ponds come first.
- Accessibility. Does the city already have access via parkland, easement, or outlot?
- What are the sediment analysis results? Can the city afford to remove and manage the sediment?
- Is the downstream lake or sub-watershed a priority?
- What is the expected cost/benefit from the project?
- Can a stormwater pond be expanded to provide greater benefit?
- Is surveying needed to assess lost capacity and depth of excavation?
- How will you measure or estimate the volume of cubic yards of sediment to be removed?
- Have sediment deltas and inlet/outlet structures been identified/located?
- Where are your access points for machinery?
- Are communications with other stakeholders important/public relations?
- Are visual inspections, notes, checklists, or photos to track maintenance projects needed?

The first phase of work identifies need and determines if a sediment removal project is even necessary. This may include a preliminary survey to gage sediment depth and provide a rough estimate of the number of cubic yards of sediment to be removed. This assessment and planning will help guide work plan development and contracting if a sediment removal project is deemed necessary.

2. Evaluating and testing sediment

Collecting sediment samples and testing sediment helps characterize what contaminants are present. This step helps identify contaminants of potential concern and what management options are available. Sampling results limit where sediment can go and this affects work plan development including contract specifications for bidding projects. This is a very important part of the management process. This guidance is summarized in the following appendices:

- Guidance for ***collecting samples and testing sediment*** are outlined in Appendix A.
- Guidance for calculating ***B[a]P equivalents and comparing chemical concentrations to Soil Reference Values*** are summarized in **Appendix B**.

Knowledge about land use categories in the watershed will help with subsequent steps in this process. In urban areas, the following land uses are of greatest interest for stormwater collection systems:

- Residential
- Commercial
- Industrial

Residential land uses range from low density (houses are on lots of more than an acre) to high density (multiple-unit structures such as apartments and condominiums). Residential areas generally have a uniform size and spacing of structures, linear driveways, and lawn areas. Most churches and small schools are included in this category, too (Anderson et al. 2001).

Commercial land uses include areas where products are sold and services are provided. These land uses include urban central business districts, shopping centers, commercial strip developments, junkyards, and resorts. Institutional land uses such as larger educational, religious, health, correctional, and military facilities are included in this category, too. Office buildings, warehouses, driveways, sheds, parking lots, landscaped areas, and waste disposal areas supporting the basic uses are included in commercial land uses (Anderson et al. 2001).

Industrial land uses range from light manufacturing to heavy manufacturing plants. Light industries design, assemble, finish, process, and package products, while heavy industries use raw materials such as iron ore, timber, or coal (e.g., steel mills, pulp and lumber mills, electric power generating stations, oil refineries and tank farms, contaminant plants, and brick making plants). Industrial land uses may include buildings, parking lots, loading docks, access roads, processing facilities, stockpiles, storage sheds, and numerous vehicles (Anderson et al. 2001).

It is the responsibility of the owner or responsible party to evaluate the drainage area of each stormwater collection system to determine whether spills, improper disposal, or the potential for a release from commercial or industrial operations indicate that sampling for other contaminants are needed. For example, if sediment is being removed from a pond in an industrial park and there has been a release of contaminants known to accumulate in sediments (like nickel and silver from a metal plating facility), then the owner or responsible party should include those contaminants on the list for sampling.

Laboratory analysis is required to determine management or treatment options. Guidance for collecting samples and testing sediment are described in Appendix A.

Management options include:

1. **Unregulated fill**. Laboratory analysis determines that contaminants of potential concern are below levels that require special management. Excavated sediment can be managed in accordance with the MPCA's BMP for the Off-Site Use of Unregulated Fill. http://www.pca.state.mn.us/index.php/view-document.html?gid=13503.
2. **Regulated solid waste.** Laboratory analysis determines that contaminants of potential concern in the stormwater sediment require special management and cannot be used as clean fill.

Contaminated sediment is currently guided to a landfill if it cannot be used as a clean fill. Depending on the types and concentrations of contaminants; sediment may need to be disposed of at a Municipal Solid Waste (MSW) landfill that has an industrial solid waste management plan. This means contaminated sediment must go to a MSW landfill that has a liner and a leachate collection system.

MSW landfills in Minnesota that can accept these types of waste can be found on this webpage: http://www.pca.state.mn.us/veiz806 or, the list can be accessed directly at this link: http://www.pca.state.mn.us/index.php/view-document.html?gid=12806.

Some additional landfills that are permitted to accept industrial waste, and which may also accept contaminated stormwater sediments, include:

1. Voyageur Industrial Landfill in Cannon Falls, Minnesota
2. Vonco II Landfill in Becker, Minnesota
3. Vonco V Landfill in Duluth, Minnesota
4. Shamrock Environmental Landfill in Cloquet, Minnesota
5. Dem-Con Landfill in Shakopee, Minnesota
6. Veolia E S Rolling Hills Landfill in Buffalo, Minnesota
7. SKB Rosemount Industrial Waste Facility in Rosemount, Minnesota

It is recommended that you contact the facility to ensure they will be able to accept your waste and to determine what sampling requirements are required by the facility.

3. Engineering, contracting, and work plans

Work plan development includes a wide range of logistics including, but not limited to:

- Notification of residents and neighbors.
- How to access the site and what machinery will be needed to remove sediment.
- Define how sediment will be removed, measured, and paid for.
- Testing or analysis requirements for the destination disposal or treatment facility.
- Plans for erosion control.
- Tree removal, environmental impact, depth to ground water, and risks associated with the displacement of wildlife or invasive species.
- Lack of design and/or construction documentation (no “as-built” records).
- Estimating water draw-down needs and the amount of time and oversight needed to drain the stormwater collection system.
- What permits (if any) may be required by your local watershed district, county, or the Department of Natural Resources. The MPCA does not require a permit or notification for routine maintenance of stormwater ponds, but cities are advised to keep records and documentation of their sediment removal projects as outlined in this guidance.
- Defining appropriate BMPs for dewatering (e.g., rock riprap, sand bags, plastic sheeting, or other accepted energy dissipation measures), such that the discharge does not adversely affect the receiving water or downstream landowners.
- Ensuring that water from pumping or draw-down activities is discharged in a manner that does not cause nuisance conditions, erosion in receiving channels, or erosion on down-slope properties. This also includes inundation of wetlands causing significant and/or adverse impact. The general rule of thumb is “keep it clear”.
- How sediment will be transported and a process to track the volume of sediment removed.
- Defining logistics, administrative, and engineering requirements, surveys, dewatering processes, site access and easements, rock entrance and off-site tracking needs, coordination with adjacent cities, and/or watershed districts and the Minnesota Department of Transportation.

4. Excavating sediment

Sediment excavation projects are recommended to take place during the winter. Benefits include:

- Winter excavations greatly reduce the risk that rain may cause flooding and erosion of dewatered ponds, or turbid runoff conditions.
- Access with trucks and heavy machinery is easier in the winter when soil surrounding stormwater ponds freezes solid.
- Adjacent residents and neighbors have windows closed and this means less noise, less dust, less odor, and fewer disturbances overall.
- Water can be pumped down so remaining water can freeze solid. Pumping should be discontinued before the bottom of the pond is disturbed and sediment is stirred up making the water turbid. Remaining water should be allowed to freeze solid trapping any suspended sediment in ice. The ice can then be skimmed off with a bulldozer so it can be piled within the pond. This keeps turbid water in the basin after snow and ice melt during spring thaw.

Winter excavation projects also have a few drawbacks. They include:

- Shorter working days
- Problems associated with working in freezing conditions and sub-zero weather
- The use of lights after dark to extend the work day

Sediment removal can begin once snow and ice have been skimmed off and piled within the pond.

A more precise survey is usually conducted at this time to better estimate the amount of sediment to be removed and to identify the depths of excavation to achieve a final grade that restores desired capacity.

If the removal volume is not defined by survey, then establishing a standard volume per truck and counting the number of trucks leaving the site can be used to track the volume in cubic yards.

Once sediment is removed, final grading should achieve a natural (gradual) slope for all banks. Ice and snow that has been stockpiled in the pond should be evenly distributed throughout the basin once sediment has been removed. This will allow water and remaining sediment to be retained in the pond. Temporary stabilization of slopes and banks should ensure control of erosion and prevent site run-off during spring snowmelt and the first rain events of the season. Clean-up and removal of temporary infrastructure should be done working your way out of the site. Once you remove equipment and temporary infrastructure (such as transport roads and rock entrances), it will be cost prohibitive and essentially impossible to make additional corrections.

5. Site restoration

Site restoration work should be conducted as soon as weather conditions permit and may include:

- Additional clean-up or maintenance of inlet and outlet structures
- Additional site stabilization work including sediment and erosion control
- Establishing plants, seed, sod, mulch, or vegetation to prevent erosion (above water line)
- Professional engineer sign-off on project completion.

6. Records and documentation to keep on file

It is important to keep good records about the operation and maintenance of stormwater collection systems. Good records will not only assist with an accurate inventory and triage of stormwater ponds, but they can also provide the basis for sound planning in the future. Important records and documentation for sediment removal projects may include:

- Date of excavation
- Amount removed
- Laboratory results
- Place of disposition
- "As Built" prints or plans if they exist
- Contractor information, shipping papers/manifests/contractual agreements
- Any other observations about the removal that will help the city operate and maintain that site in the future.

For more information on PAH-contaminated stormwater sediment, or information about stormwater best management practices, contact Don Berger at 651-757-2223 or e-mail to: donald.berger@state.mn.us.

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Appendix A: Sediment Sampling and Analytical Technical Guidance

This technical guidance should be shared with the staff or environmental consultants responsible for sampling sediments and interpreting the analytical results for the owner or responsible party. It is the responsibility of the owner or responsible party to either train their staff or select consultants who can perform these tasks.

What's New?

- The number of sediment samples to be collected now depends on the surface area of the stormwater pond instead of the volume of material to be excavated from the pond.
- For the analysis of polycyclic aromatic hydrocarbons (PAHs) from sediment samples, analytical laboratories must use clean-up columns (instead of only diluting the sample extract) to remove interferences from the sample extract. This will result in lower reporting limits and better data for making management decisions.
- The MPCA has reduced the number of carcinogenic PAHs (cPAHs) to be measured in sediment samples from 25 to 17 compounds.

Sediment sampling

The U.S. Environmental Protection Agency's report on "Methods for Collection, Storage and Manipulation of Sediments for Chemical and Toxicological Analyses: Technical Manual" (USEPA 2001) provides guidance on sediment monitoring plans, collection of whole sediments, field sample processing, transport and storage of sediments, sediment manipulations, and quality assurance/quality control (QA/QC) issues. This report should be used as a resource by owners or responsible parties, and their consultants, for sampling and processing stormwater pond sediments. In particular, this user-friendly document provides pictures of sediment sampling equipment, flowcharts for making decisions, check lists, and boxes of important bulleted items.

Sediment characterization

Stormwater pond sediments are very complex, and chemical results can vary greatly within a few yards of each sample. This feature makes it more difficult to provide generic guidance for a broad suite of stormwater ponds. The ponds themselves may differ based on whether the pond originated as a natural feature or was constructed for the purpose of stormwater management. These ponds also vary in size and shape, and some ponds may have multiple inlets and outlets. Finally, the type of land uses in the drainage areas of the ponds can influence contaminant concentrations in the pond sediments. Based on the MPCA's 2009 stormwater pond study (Crane in review), coal tar-based sealant sources comprised 58 percent of total PAHs (based on a suite of 34 PAHs) in surface sediments of ponds located primarily in residential, commercial, and industrial land use areas. Watersheds where coal tar-based sealants are used on driveways and parking lots will have higher concentrations of PAHs in nearby stormwater pond sediments than those that use either asphalt-based sealants (which have much lower concentrations of PAHs), no sealant, or use other material such as concrete, permeable pavers, or gravel for driveways and parking lots.

The MPCA is requiring owners or responsible parties to sample sediments prior to dredging to determine concentrations of 17 cPAHs, noncarcinogenic PAHs, arsenic, and copper. Analysis of sediment samples for particle size and total organic carbon (TOC) is optional, but this information may be useful for some beneficial reuse scenarios of the dredged material. If the owner or responsible party is aware of other known or suspected sources of contamination, they should collect sufficient volumes of sediment samples to have other parameters evaluated. The analytical laboratory will provide guidance on how much sediment is needed for each analysis. Since it can sometimes take several months from the time field sampling is conducted to when the analytical results become available for assessing management options, the field sampling needs to be conducted early on in the process after conducting an inventory of stormwater ponds and determining maintenance needs.

If the annual volume of sediment to be removed is less than 100 cubic yards, such as from a sump or forebay area near a pond inlet or outfall, then no chemical testing or other sediment characterization is required. The owner or responsible party is responsible for the due diligence in the reuse and/or disposal of this material. When more than 100 cubic yards of sediment need to be removed, some important general guidance for characterizing sediment is as follows:

- Sampling should be to the planned depth of excavation or greater. The MPCA has provided previous guidance to collect sediment samples in two foot intervals (e.g., 0 – 2 ft, 2 - 4 ft), but it is up to the owner or responsible party to collect sediment samples that will cover the depth to be dredged. If it is easier in the field to collect two foot depth intervals, then by all means continue to do this. The important issue is to send a sediment sample to the analytical laboratory that is representative of the entire depth interval to be excavated. Since collecting sediment from two or more long (2 ft) cores may entail a large mass of sediment, it may be easier to slice the core from top to bottom and only analyze half of the slice; this slice can be combined with a deeper layer slice to provide one composite sample for the analytical laboratory to analyze. It is not acceptable to randomly scoop out bits of sediment from different portions of the sediment core to composite together since doing so may miss out on the historical record of sediments (and contaminants) deposited in different depth intervals.
- Core samplers are more appropriate to use to obtain cohesive sediment samples at depth than grab samplers. Grab samplers can be used to collect surface samples if the sediment samples are too floccy (loose) with vegetative detritus (e.g., parts of cattail stalks/leaves) or are too sandy to be retained in a core sampler.
- Geopositional coordinates need to be collected at the location of each sample site.
- The number of samples to be collected depends on the surface area of the pond. [**Note: this is a change in policy from previous MPCA guidance (Stollenwerk *et al*. 2011) that recommended the number of samples per the estimated volume of dredge material.**] The goal is to collect sediment samples that are representative of the material that will be removed to maintain the functionality of the stormwater pond.
    - Multiple samples need to be collected, particularly since some compounds may be not be detected in all areas of the pond.
    - For stormwater ponds with a surface area less than or equal to one acre, at least two stations need to be sampled for chemical analysis. Sample sites may either be selected randomly or by a transect from the main inlet to the outlet of the pond.
    - For ponds greater than one acre and less than four acres, one sampling station should be located in each acre and portion of an acre of the pond. In some cases, multiple samples may need to be collected at the same station and composited together to provide an adequate mass of sediment for the analytical work. Sample sites may either be selected randomly or in a transect from the main inlet to outlet of the pond.

- For ponds larger than four acres, divide the pond into four sections (quadrants) as shown in Figure A-1. Select at least five sites (i.e., subsamples) within each quadrant using either the dice pattern shown in Figure A-1 or using a random sampling strategy. Sediment from each subsample needs to homogenized (mixed well) in a precleaned container (large 4 L Pyrex mixing cups work well; larger volumes can use precleaned buckets). An equal aliquot of sediment from each subsample is then composited together to form the sediment sample for that quadrant that is submitted to the analytical laboratory.
- For natural ponds larger than 4 acres that have an irregular shape, such as bays off the main pond, each bay should be sampled if it is targeted for dredging. Depending on the size of the bay, use the aforementioned guidance for developing a sampling plan.
- If more than 10 samples are collected for analysis (possibly from a study of multiple ponds during the same time period), a field replicate sample needs to be collected for every 10 samples (i.e., 10% of samples). A field replicate is collected in close proximity to the other sample and provides a measure of field precision.

· Remove any rocks, pebbles, trash, large invertebrates (like beetles), or large pieces of detritus from each subsample and composite sample.

· Overlying water needs to be decanted from the subsamples and composite sediment sample in the field prior to splitting the sample into the sample jars.

· Sediment samples need to be homogenized (mixed well) before splitting the sample into precleaned jars for the PAH and metals analyses. Most analytical laboratories will provide precleaned jars and sample labels for their clients. It is important with PAHs to use amber, pesticide-grade, precleaned glass jars with Teflon™-lined lids since PAHs may be degraded by sunlight. Use a permanent marker to fill out the sample label; it is helpful to wrap clear packing tape around the label to secure it on the jar since sometimes the labels can come loose while the sample jars are stored on ice during field sampling.

· Store the sediment samples on ice (or ice packs) in a cooler during field sampling. Next, either transfer the samples directly to the analytical laboratory or store them in an interim refrigerator or freezer prior to submitting to the laboratory. If the sediment samples are to be frozen, make sure the sample jars are not filled more than two-thirds full to allow room for expansion while the sediment freezes.

Submit samples to analytical laboratories

The following steps need to be completed before the sediment samples are ready to submit to the analytical laboratory:

· After the sediment has settled in the sample jars in the refrigerator, additional overlying water should be carefully removed prior to submitting the samples to analytical laboratories. Use of a pre-cleaned, wide-bore pipette to remove overlying water is better than decanting the sample since it will not disturb the sediment as much in the jar. If the laboratory receives sediment samples that have a high water content, then there may not be enough mass of sediment available to do their analyses. If the sediments are "soupy" or have a lot of plant detritus (such as from cattails), then it would be a good idea to submit extra sediment to the laboratory.

· Provide the analytical laboratory with recommendations on which sample(s) would make good candidate Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples for the cPAH analysis. This is important since the laboratory receives a subset of the sample collected and does not have the field sampling observations the field sampling crew had with collecting the larger sample. If guidance is not provided and the laboratory ends up selecting a sediment sample high in PAHs (as occurred with the MPCA's stormwater pond study), the results of the MS/MSD will not be useable and the client will still be charged for this analysis. Good candidate samples would

be expected to have lower concentrations of PAHs so that the spike level will be at least five times greater than the background sample. Avoid designating samples that have strong petroleum odors, have an oil sheen overlying the sediment, or are dark black and oily in appearance since these samples are likely to have high concentrations of PAHs.

- Sample tracking forms or chain-of-custody forms are helpful to use during field sampling to record observations about the sediment samples and to provide field sampling information (e.g., sample station, date, time, sampling equipment, analyses to be done). Most analytical laboratories will provide their clients with a chain-of-custody form; provide a copy to the analytical laboratory when the samples are submitted or shipped to them.

How to Select an Analytical Laboratory:

1. If the municipality is a Cooperative Purchasing Venture (CPV) member, they can access the State of Minnesota's Sampling and Laboratory Services contract to obtain State-negotiated contract prices. If needed, assistance in accessing the contract is available from Martina Cameron (MPCA) at: martina.cameron@state.mn.us or 651-757-2259. If assistance is needed to find a contract laboratory capable of performing cPAH analyses, then contact Bill Scruton (MPCA) at: bill.scruton@state.mn.us or 651-757-2710.

2. If the municipality is not currently a CPV member but would like to become one, sign-up for this program from the Minnesota Department of Administration's website at: http://www.mmd.admin.state.mn.us/cpvfaqs.htm#M. There is no charge to sign-up, and it is open to all municipalities.

3. If the municipality wants to find a commercial laboratory for cPAHs without using the State contract, go to the following link for the Minnesota Department of Health's Certification website to find a laboratory certified for this analysis in Minnesota: https://apps.health.state.mn.us/eldo/public/accreditedlabs/labsearch.seam. From this website, click on the "customized searches" tab. At the Program drop down arrow, click on "Resource Conservation Recovery Program." Next, click "search" at the bottom of the page. Click "view" on the right-hand side of the page in line with the laboratory contact information to scroll down the list of laboratory capabilities. Look for RCRA method 8270D SIM. The Minnesota Department of Health does not actually certify laboratories for either the cPAH method or the extra PAHs beyond the U.S. Environmental Protection Agency (EPA) list of 16 priority pollutant PAHs. The municipality should ask the laboratory if they do the cPAH list, also known as the Minnesota Extended List of PAHs.

Analytical considerations

This guidance may be updated in the future as new screening and analytical methods become available.

Preparation

Laboratories that freeze dry the sediment samples prior to extraction and analysis for PAHs and metals, as well as other contaminants of potential concern, reduce or eliminate the problems of wet samples. These laboratories are also able to achieve lower detection limits and more quantitative determinations. Freeze drying of the sample also allows for complete homogenization of the sample matrix, which will result in improved precision. Although not a requirement, better results may be obtained using this preparation method.

Analytical methods

The primary analytical methods are provided below:

- The extended list of PAHs, including 17 cPAHs (Table A-1) and noncarcinogenic PAHs, must be analyzed based on EPA Method 8270 by gas chromatography/mass spectrometry (GC/MS) with selective ion monitoring (SIM) as optional.
    - Since sediments from stormwater ponds usually contain interfering compounds, it is required that the analytical laboratory run the sample extracts through clean-up columns, rather than just diluting the sample extract to reduce interfering compounds. An example clean-up process is to pass the sample extract through an alumina (and/or silica gel) column to isolate the hydrocarbon fraction. A layer of activated copper can be added to the bottom of the column or to the sample extract to remove any sulfur that may have been present in the samples. Note that 14 cPAHs were detected in the MPCA's study of stormwater pond sediments (Crane in review), and either more cPAHs or a greater percentage of cPAHs may have been detected if the local laboratory had used clean-up columns instead of diluting the sample extracts (Table A-2). These results, in addition to other factors described in Table A-2, were used to shorten the list of cPAHs from 25 to 17 compounds.
    - The analytical laboratory must be asked to note J-flagged data that are in-between the method detection limit and the reporting limit.
- Metals should be analyzed by inductively coupled plasma—mass spectrometry (ICP—MS) using reference method SW 6020. Occasionally, confirmation of the metal may be needed using graphite furnace atomic absorption spectrophotometry.
- Percent moisture should be determined using reference method ASTM D2216.
- Total organic carbon (TOC), if needed, can be analyzed using EPA method 9060a.
- Particle size, if needed, can be analyzed multiple ways to determine percent sand, silt, and clay.

QA/QC data quality indicators

The field sampling procedures and analytical methods include several QA/QC measures to ensure useable data are collected and measured. In particular, data quality indicators (DQIs) are qualitative and quantitative descriptors used in interpreting the degree of acceptability or utility of data. The principal DQIs are precision, bias, representativeness, comparability, and completeness; these terms are described further in Attachment 1. Establishing acceptance criteria for the DQIs sets quantitative goals for the quality of data generated in the analytical measurement process.

- For cPAHs and noncarcinogenic PAHs by EPA Method 8270, the DQIs are:
    - Blanks: <5 times the method detection limit (MDL); procedural blanks should be prepared with each analytical batch.
    - Surrogate Recovery: 40-120% the recovery of the surrogate compounds are used to measure data quality in terms of accuracy (extraction efficiency).
    - Laboratory Control Sample (LCS) and Matrix Spike (MS) Recovery: 40-120%; the percent recoveries of target analytes are calculated to measure data quality in terms of accuracy
    - MS/Matrix Spike Duplicate (MSD) Precision: relative percent difference (RPD) <30%; this is used to evaluate the data in terms of precision.
    - Reporting Limit of 10-30 µg/kg dry weight for individual PAH compounds.

- For metals (arsenic and copper):
    - Blanks: <5 times the MDL; procedural blanks should be prepared with each analytical batch.
    - Precision (% RPD): <10%
    - Accuracy: 85 – 115%
    - Reporting Limit: 0.10 mg/kg dry wt.

Electronic data requirements

- Electronic copies of the data should be obtained from the analytical laboratory in spreadsheet format (e.g., Microsoft Excel).
- In the future, the MPCA may be interested in obtaining electronic copies of the analytical results for archiving it in the MPCA's database system. At the present time, though, the MPCA's database platform, EQuIS, is not set-up to accommodate sediment chemistry data

References

Crane, J.L. in review. Source apportionment of PAHs and risk considerations in urban stormwater pond sediments in the Upper Midwest USA. Submitted to a peer-reviewed journal on May 8, 2012.

Stollenwerk, J., J. Smith, B. Ballavance, J. Rantala, D. Thompson, S. McDonald, and E. Schnick. 2011. Managing dredged materials in the State of Minnesota. Minnesota Pollution Control Agency, St. Paul, MN. MPCA document number wq-gen2-01. http://www.pca.state.mn.us/index.php/view-document.html?gid=12959.

USEPA. 2001. Methods for collection, storage and manipulation of sediments for chemical and toxicological analyses: Technical manual. U.S. Environmental Protection Agency, Office of Water, Washington, DC. EPA-823-B-01-002 (http://water.epa.gov/polwaste/sediments/cs/collection.cfm).

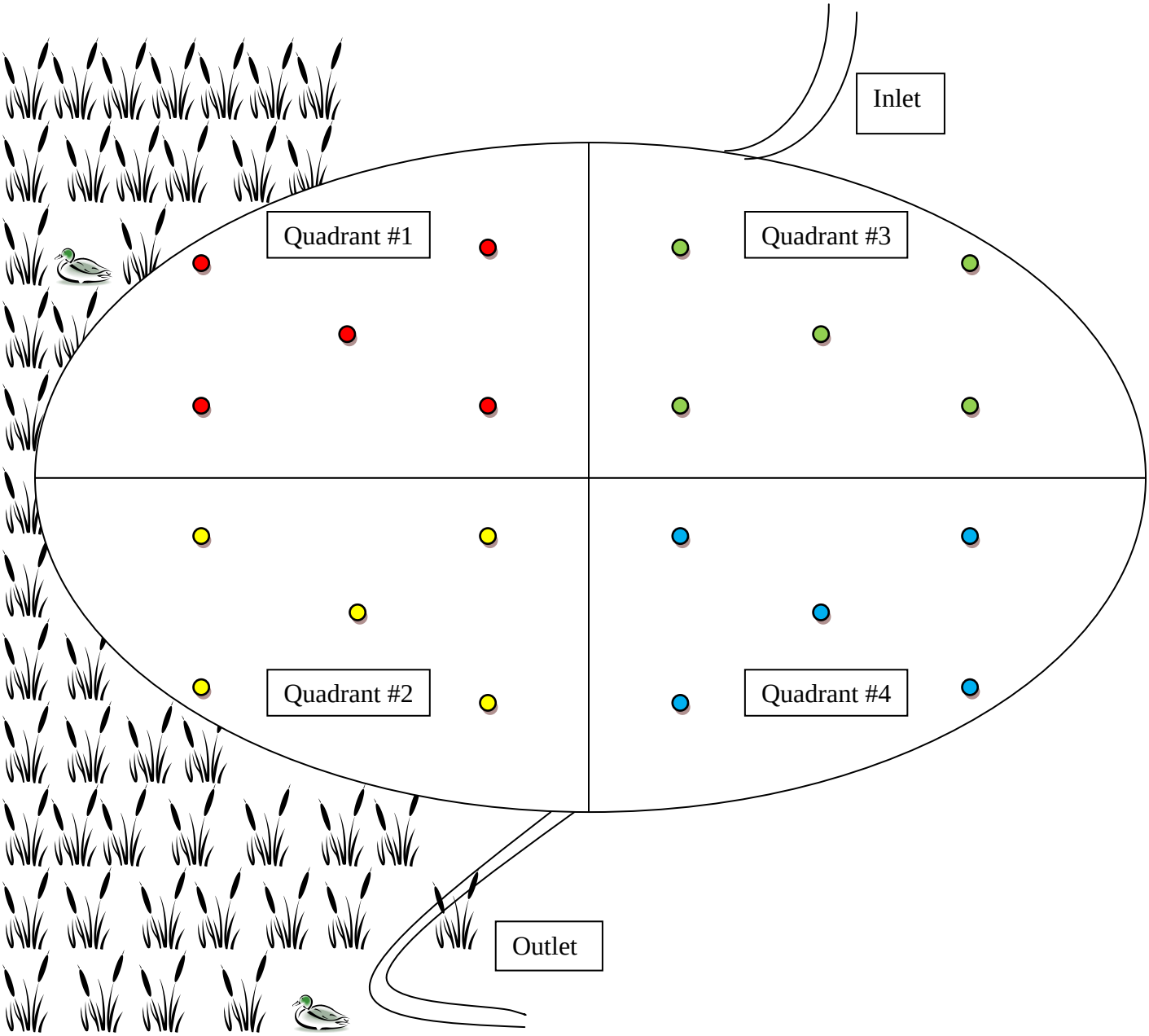

Figure A-1. Sediment sampling scheme for a stormwater pond greater than four acres in size.

Table A-1. List of PAHs to be Analyzed in Stormwater Pond Sediments

PAH Compounds Included in EPA Method 8270	cPAHs	U.S. EPA Group B2 Probable Human Carcinogens
Acenaphthene		
Acenaphthylene		
Anthracene		
Benzo[a]anthracene	X	X
Benzo[a]pyrene	X	X
Benzo[b]fluoranthene	X	
Benzo[j]fluoranthene	X	X
Benzo[e]pyrene		
Benzo[g,h,i]perylene		
Benzo[k]fluoranthene	X	X
Benzofluoranthenes (Total)		
Carbazole		
2-Chloronaphthalene		
Chrysene	X	X
Dibenz[a,h]acridine	X	
Dibenz[a,h]anthracene	X	X
Dibenzo[a,e]pyrene	X	
Dibenzo[a,h]pyrene	X	
Dibenzo[a,i]pyrene	X	
Dibenzo[a,l]pyrene	X	
7H-Dibenzo[c,g]carbazole	X	
Dibenzofuran		
7,12-Dimethylbenz[a]anthracene	X	
Fluoranthene		
Fluorene		
Indeno[1,2,3-cd]pyrene	X	X
3-Methylcholanthrene	X	
5-Methylchrysene	X	
1-Methylnaphthalene		
2-Methylnaphthalene		
Naphthalene		
Perylene		
Phenanthrene		
Pyrene		

Note: A combination of benzo[b]fluoranthene, benzo[j]fluoranthene, and/or benzo[k]fluoranthene frequently coelute together when sediments are analyzed.

Table A-2. Percent of Detected cPAHs in a MPCA Study of Metro Area Stormwater Ponds (Crane in review)*

Parameter	# of Detects**	% Detected
Chrysene	44	73.3
Benzo[b&j]fluoranthene	42	70.0
Benzo[a]pyrene	41	68.3
Indeno[1,2,3-c,d]pyrene	38	63.3
Benzo[a]anthracene	34	56.7
Benzo[k]fluoranthene	34	56.7
Dibenzo[a,e]pyrene	33	55.0
Dibenzo[a,i]pyrene	32	53.3
Dibenzo[a,h]pyrene	23	38.3
Dibenzo[a,h]anthracene	15	25.0
Dibenz[a,h]acridine	10	16.7
3-Methylcholanthrene	4	6.7
Dibenzo[a,l]pyrene	4	6.7
5-Methylchrysene	1	1.7

* Sediment samples were analyzed by a local commercial laboratory without using clean-up columns. Instead, the sample extracts were diluted to remove chemical interferences. The reporting limits were elevated as a result of diluting the sample extracts. A higher percentage of detected cPAHs probably would have been achieved if the sample extracts had been run through clean-up columns.

** Results exclude field replicate data; n = 60 samples.

The following cPAHs were not detected in any samples: 1,6-Dinitropyrene, 1,8-Dinitropyrene, 1-Nitropyrene, 2-Nitrofluorene, 4-Nitropyrene, 5-Nitroacenaphthene, 6-Nitrochrysene, 7,12-Dimethylbenz(a)anthracene, 7H-Dibenzo(c,g)carbazole, and Dibenz(a,j)acridine.

Note: the MPCA evaluated this list of 25 cPAHs to determine if some of these cPAHs could be dropped from the analytical list for stormwater pond sediments. As indicated in Appendix B, this list of 25 cPAHs was adopted from an air quality program at California EPA. However, not all of these atmospheric cPAHs in California may be of concern in stormwater pond sediments in Minnesota. The above data set was reviewed, in addition to the percentage of detected cPAHs in other sediment data sets available to the MPCA (including some other metro-area stormwater pond sediments and sites included under the MPCA's Remediation Program). Additional input to the MPCA's evaluation came from recommendations from the Minnesota Department of Health for cPAHs to analyze in stormwater pond sediments, as well as human health-based toxicity data, environmental fate information, the results of the MPCA's environmental forensic work to determine sources of PAHs in metro-area stormwater ponds (Crane in review), and commercial production information. All of this information was used to shorten the list of cPAHs from 25 to 17 compounds (Table A-1). As additional data become available, the MPCA will periodically assess whether further changes are needed to this list.

Attachment 1. Data quality indicators

This section is based on quality assurance/quality control (QA/QC) guidance provided by the U.S. Environmental Protection Agency (USEPA 2002). Data Quality Indicators (DQIs) are qualitative and quantitative descriptors used in interpreting the degree of acceptability or utility of data. The principal DQIs are precision, bias, representativeness, comparability, and completeness. Establishing acceptance criteria for the DQIs sets quantitative goals for the quality of data generated in the analytical measurement process.

Precision

Precision is a measure of agreement among replicate measurements of the same property, under prescribed similar conditions. This agreement is calculated as either the range (R) or as the standard deviation (s). It may also be expressed as a percentage of the mean of the measurements, such as relative percent difference (RPD) or relative standard deviation (RSD) (for three or more replicates).

Field precision is assessed through the collection and measurement of field replicates at a rate of one replicate per ten analytical samples. This allows intralaboratory precision information to be obtained on sample acquisition, handling, shipping, storage, preparation, and analysis. Both samples can be carried through the steps in the measurement process together to provide an estimate of short-term precision. An estimate of long-term precision can be obtained by separating the two samples and processing them at different times or by different people and/or analyzed using different instruments.

For duplicate measurements, relative percent difference (RPD) is calculated as follows:

$$RPD = \frac{|D_1 - D_2|}{(D_1 + D_2)/2} \times 100\%$$

RPD = relative percent difference
D_1 = sample value
D_2 = duplicate sample value
$|D_1 - D_2|$ = absolute value of the sample minus the duplicate sample values

For three or more replicates:

$$RSD = (s/x) \times 100$$

RSD = relative standard deviation
s = standard deviation of three or more results
x = mean of three or more results

Standard deviation is defined as follows:

$$s = ((\sum (y_i - \text{mean } y)^2 \times 1/(n-1)))^{0.5}$$

s = standard deviation
y_i = measured value of the ith replicate
mean y = mean of replicate measurements
n = number of replicates

Bias

Bias is the systematic or persistent distortion of a measurement process that causes errors in one direction. Bias assessments for environmental measurements are made using personnel, equipment, and spiking materials or reference materials as independent as possible from those used in the calibration of the measurement system. When possible, bias assessments should be based on analysis of

spiked samples rather than reference materials so that the effect of the matrix on recovery is incorporated into the assessment. A documented spiking protocol and consistency in following that protocol are important to obtaining meaningful data quality estimates. Spikes should be added at different concentration levels to cover the range of expected sample concentrations. The use of spiked surrogate compounds for GC/MS (SIM) procedures for PAH compounds are used to assess for bias.

Accuracy

Accuracy is a measure of the closeness of an individual measurement of the average of a number of measurements to the true value. Accuracy includes a combination of random error (precision) and systematic error (bias) components that result from sampling and analytical operations.

Accuracy in the field is assessed through the adherence to all sample handling, preservation, and holding times. In order to assure the accuracy of the analytical procedures, an environmental sample will be randomly selected from each sample shipment received at the laboratory, and spiked with a known amount of the analytes to be evaluated. In general, a sample spike will be included in every set of 20 samples tested on each instrument. The spike sample will then be analyzed. The increase in concentration of the analyte observed in the spiked sample, due to the addition of a known quantity of the analyte, compared to the reported value of the same analyte in the unspiked sample determines the percent recovery. The percent recovery for a spiked sample is calculated according to the following formula:

$$\%R = 100\% \times (S-U)/C_{sa}$$

%R = percent recovery
S = measured concentration in spiked sample
U = measured concentration in unspiked sample
C_{sa} = actual concentration of spike added

For situations where a standard reference material (SRM) is used in addition to a matrix spike:

$$\%R = 100\% \times C_m/C_{srm}$$

%R = percent recovery
C_m = measured concentration of SRM
C_{srm} = actual concentration of SRM

Representativeness

Representativeness expresses the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition. Representativeness is a qualitative term that should be evaluated to determine whether *in situ* and other measurements are made and physical samples collected in such a manner that the resulting data appropriately reflect the media and phenomenon measured or studied.

For field data, representativeness is dependent upon the proper design of the sampling program and will be satisfied by ensuring that the field sampling plan is followed and that proper sampling techniques are used.

Representativeness in the laboratory is ensured by using the proper analytical procedures, meeting sample holding times, and analyzing and assessing laboratory duplicates for the chemistry samples.

Comparability

Comparability is the qualitative term that expresses the confidence that two data sets can contribute to a common analysis and interpolation. Comparability must be carefully evaluated to establish whether two data sets can be considered equivalent in regard to the measurement of a specific variable or groups of variables. In a laboratory analysis, the term comparability focuses on method type comparison, holding times, stability issues, and aspects of overall analytical quantitation.

There are a number of issues that can make two data sets comparable, and the presence of each of the following items enhances their comparability:

- Two data sets should contain the same set of variables of interest;
- Units in which these variables were measured should be convertible to a common metric;
- Similar analytical procedures and quality assurance should be used to collect data for both data sets;
- Time measurements of certain characteristics (variables) should be similar for both data sets;
- Measuring devices used for both data sets should have approximately similar detection levels;
- Rules for excluding certain types of observations from both samples should be similar;
- Samples within data sets should be selected in a similar manner;
- Sampling frames from which the samples were selected should be similar; and
- Number of observations in both data sets should be of the same order or magnitude.

These characteristics vary in importance depending on the final use of the data. The closer two data sets are with regard to these characteristics, the more appropriate it will be to compare them. Large differences between characteristics may be of only minor importance, depending on the decision that is to be made from the data.

Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under normal conditions. Field completeness is a measure of the amount of valid measurements obtained from all the measurements taken in the project. Field completeness for sampling stormwater ponds should be greater than 95%. Laboratory completeness is a measure of the amount of valid measurements obtained from all the measurements taken in the project. Laboratory completeness should be greater than 95% of the total number of samples submitted to the analytical laboratories.

The calculation for percent completeness is as follows:

$$\%C = 100\% \times (V/n)$$

%C = percent completeness

V = number of valid measurements

n = number of measurements planned

Reference

USEPA. 2002. Guidance for quality assurance project plans. U.S. Environmental Protection Agency, Office of Environmental Information, Washington, DC. EPA/240/R-02/009. (http://www.epa.gov/quality/qs-docs/g5-final.pdf)

Appendix B: Technical Guidance for Calculation of Benzo[a]pyrene Equivalents and Comparison of Chemical Concentrations to Soil Reference Values

This technical guidance provides instructions for calculating benzo[a]pyrene (B[a]P) equivalents for carcinogenic polycyclic aromatic hydrocarbons (cPAHs) and guidance for comparing all chemical data from stormwater pond sediment samples to the MPCA's Soil Reference Values (SRVs). Management options for upland disposal of excavated sediment are discussed relative to the SRV values.

Calculating B[a]P equivalents

The Minnesota Department of Health (MDH) recommends evaluating the 25 cPAHs that the California Environmental Protection Agency (Cal/EPA) has identified as being probable or possible human carcinogens (Cal/EPA 1993, 2009; MDH 2001). Since toxicity data does not exist for all individual cPAHs, they are evaluated according to how potent they are in relation to a reference contaminant, B[a]P. Assuming B[a]P has a toxicity of one, other cPAHs are assigned a potency equivalency factor (PEF) to indicate how toxic they are in comparison to B[a]P. Table B-1 lists B[a]P PEFs for 17 cPAHs to be measured in stormwater pond sediments (see Appendix A, Table A-2 for additional explanation). This section only pertains to cPAHs, which are evaluated by using B[a]P equivalents. Noncarcinogenic PAHs are evaluated individually and are not included in the total B[a]P equivalent concentration.

Table B-1. B[a]P Potency Equivalency Factors (PEFs)

cPAH	PEF	cPAH	PEF
Benz[a]anthracene*	0.1	Dibenzo[a,e]pyrene	1
Benzo[b]fluoranthene	0.1	Dibenzo[a,h]pyrene	10
Benzo[j]fluoranthene	0.1	Dibenzo[a,i]pyrene	10
Benzo[k]fluoranthene	0.1	Dibenzo[a,l]pyrene	10
Benzo[a]pyrene	***1.0***	7,12-Dimethylbenzanthracene	34
Chrysene	0.01	Indeno[1,2,3-c,d]pyrene	0.1
Dibenz[a,h]acridine	0.1	3-Methylcholanthrene	3
Dibenz[a,h]anthracene	0.56	5-Methylchrysene	1
7H-Dibenzo[c,g]carbazole	1		

*A common synonym for this compound is Benzo[a]anthracene

**Benzo[a]pyrene is the reference contaminant

Site sediment concentrations of individual cPAHs are multiplied by the corresponding PEF value in Table B-1 to obtain an individual B[a]P equivalent concentration. These individual B[a]P equivalent concentrations are summed for all cPAHs to arrive at a total B[a]P equivalent concentration that is compared to the appropriate SRV value. The MPCA has developed an Excel file spreadsheet that users can add their detected cPAH data to calculate B[a]P equivalents. The "BaP equiv. calculation" worksheet is provided in the "Summary of Stormwater Pond Sediment Results" Excel file under the "Permit and Program Forms" section of the Stormwater webpage at: http://www.pca.state.mn.us/sbiza7c.

For example, Table B-2 shows how the B[a]P equivalents were calculated for a hypothetical stormwater pond where all 17 cPAHs were detected in the sediment sample. The contaminant concentrations are entered into Column C. Each cPAH concentration is multiplied by the corresponding PEF value in Column B to arrive at the individual B[a]P equivalent concentration in Column D. The individual B[a]P equivalent concentrations are then summed to obtain the total B[a]P equivalents concentration listed at the bottom of Column D.

Table B-2. Example – Calculating Total B[a]P Equivalents for Detected cPAH Data

A cPAH Compound	**B** PEF Potency Equivalent Factor	**C** Sediment Concentration (mg/kg)	**D** B[a]P Equivalent (mg/kg)
Benz[a]anthracene	0.1	2.190	0.219
Benzo[b]fluoranthene*	0.1	3.750	0.375
Benzo[j]fluoranthene*	0.1	0.000	0.000
Benzo[k]fluoranthene	0.1	1.320	0.132
Benzo[a]pyrene	1	2.270	2.270
Chrysene	0.01	2.790	0.028
Dibenz[a,h]acridine	0.1	0.219	0.022
Dibenz[a,h]anthracene	0.56	0.270	0.152
7H-Dibenzo[c,g]carbazole	1	0.160	0.160
Dibenzo[a,e]pyrene	1	0.828	0.828
Dibenzo[a,h]pyrene	10	0.419	4.190
Dibenzo[a,i]pyrene	10	0.391	3.910
Dibenzo[a,l]pyrene	10	0.150	1.500
7,12-Dimethylbenzanthracene	34	0.150	5.137
Indeno[1,2,3,-c,d]pyrene	0.1	1.350	0.135
3-Methylcholanthrene	3	0.170	0.512
5-Methylchrysene	1	0.160	0.160
		Total B[a]P equivalents =	**19.730**

* In this example benzo[b]fluoranthene and benzo[j]fluoranthene coeluted. In other words, the combined concentration of both cPAHs was reported by the laboratory as 3.75 mg/kg benzo[b and j]fluoranthene. Since both compounds have the same PEF value, 3.75 was entered for the sediment concentration of benzo[b]fluoranthene while the concentration of benzo[j]fluoranthene was entered as zero.

New procedure for addressing nondetect data when calculating B[a]P equivalents:

It is unlikely that all 17 cPAHs will be detected in stormwater pond sediments (e.g., see Table A-2 in Appendix A). Previously, the MPCA's Stormwater Program recommended using one-half the reporting limit for nondetect data. However, this substitution method introduces bias in the results and can artificially inflate the B[a]P equivalent concentrations. The MPCA now recommends the following procedures:

1. Calculate a screening total B[a]P equivalents concentrations with the detected and estimated (J-flagged) cPAH data. If the total B[a]P equivalents exceed 3.0 mg/kg (the current industrial SRV), then no further calculations are needed with the nondetect data.
2. If the screening total B[a]P equivalents are less than 3.0 mg/kg and the percentage of nondetect data for each sample are ≤50%, then the nondetect data need to be included in the calculation of total B[a]P equivalents. The MPCA recommends using Kaplan-Meier statistics for calculating total B[a]P equivalents from the detected, estimated, and nondetect data; this procedure works best when there are ≤50% nondetect data. Kaplan-Meier is a nonparametric statistical method, and no assumptions about the distribution of the data (whether they follow a normal or other distribution) need to be made (Helsel 2010, 2012). Kaplan-Meier has been shown to be superior to substitution methods for nondetect data. Dennis Helsel, a retired statistician from the U.S. Geological Survey, has developed user-friendly guidance on how to use Kaplan-Meier statistics. In particular, he published a paper in 2010 on how to sum nondetect and detected data for calculating a total value. His paper goes through a case study example showing how this can be done using environmental chemistry data (i.e., polychlorinated biphenyls, dioxins, and furans) and toxic equivalence factors to calculate toxic equivalence concentrations (this is analogous to using the sediment cPAH data and the PEFs to calculate the total B[a]P equivalents). His 2010 paper is freely available at: http://onlinelibrary.wiley.com/doi/10.1002/ieam.31/full. Reading this paper and following through with the examples will give people the training they need to do Kaplan-Meier statistics. In addition, Dennis Helsel has developed a free Excel worksheet for using Kaplan-Meier statistics at: http://practicalstats.com/nada/nada/downloads.html. He also offers training classes/webinars and has a new book that clearly describes procedures for using Kaplan-Meier statistics (Helsel 2012).
3. If the screening total B[a]P equivalents are less than 3.0 mg/kg and the percentage of nondetect cPAH data are ≥50%, then there are increased difficulties with estimating the portion of the total B[a]P equivalents from the nondetect data. In these cases, the MPCA recommends reporting the total B[a]P equivalents based on the measured and estimated data with a qualifier that states the percentage of nondetect cPAH data.
4. If all of the cPAH data are reported as not detected, then the B[a]P equivalents cannot be calculated. In these cases, the municipality should investigate the QA/QC procedures of the laboratory further to determine if they were adequate. Since PAHs are a ubiquitous class of contaminants, a quality laboratory should be able to detect at least some of the cPAHs, especially B[a]P, chrysene, and indeno[1,2,3-cd]pyrene.

The MDH is in the process of reevaluating their recommendations for calculating total B[a]P equivalents. Revised cPAH guidance is expected to be issued later this year. Additional information can be found on the MDH website at: http://www.health.state.mn.us/divs/eh/risk/guidance/pahmemo.html.

Determining restrictions and proper management

The MPCA has developed human health-based SRVs for residential and industrial land use scenarios. Analytical results for metals, noncarcinogenic PAHs, and total B[a]P equivalents (for cPAHs) are compared to these SRVs to determine what restrictions are placed on the excavated sediment, including management options for upland disposal.

An Excel file spreadsheet containing the Residential and Industrial SRVs are provided in the "Summary of Stormwater Pond Sediment Results" Excel file under the "Permit and Program Forms" section of the Stormwater webpage at: http://www.pca.state.mn.us/sbiza7c.

If all metal, total B[a]P equivalent (cPAHs), and noncarcinogenic PAH concentrations in the sediment are below the corresponding Residential SRV values, this indicates exposure to the dredged sediment does not present an unacceptable risk to humans in a residential scenario and management options may include disposal of the excavated sediment in residential areas. If all metal, total B[a]P equivalent (cPAHs), and noncarcinogenic PAH concentrations in the sediment are below the corresponding Industrial SRV values, this indicates exposure to the dredged sediment does not present an unacceptable risk to humans in an industrial setting and management options may include disposal of the excavated sediment in industrial areas. If the metal, total B[a]P equivalent (cPAHs), or noncarcinogenic PAH concentrations in the sediment exceed the industrial SRVs, this indicates that a potential risk may exist from exposure to the sediments and appropriate management options are required for the excavated sediment. In this case, contact the Stormwater Program for further guidance.

Soil Reference Values (SRVs):

SRVs are derived to assess potential human health exposures from soil using a reasonable maximum exposure (RME) scenario. RME scenarios are intended to protect an entire population without being overly conservative by using reasonable upper bound estimates for the most sensitive exposure parameters and central tendency estimates for less sensitive exposure parameters.

SRVs are intended to evaluate both potential non-cancer and cancer risks associated with a contaminant present in the soil. Two separate SRV values are calculated for each contaminant, one for non-cancer risk and one for cancer risk. The final SRV value reported on the Residential or Industrial SRV spreadsheet is the lower of the two. In other words, it is the smallest concentration of the contaminant that could potentially pose either a non-cancer or cancer risk. For example, for contaminant "X", if the non-cancer SRV is 10 mg/kg and the cancer SRV is five mg/kg, then the final SRV is reported as five mg/kg.

The SRVs are currently undergoing revision to ensure they incorporate the latest scientific toxicity data available. In particular, the SRV for total B[a]P equivalents will be revised to incorporate new toxicity data.

References

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MDH (Minnesota Department of Health). 2001. Polycyclic aromatic hydrocarbons: Methods for estimating health risks from carcinogenic PAHs. Minnesota Department of Health, St. Paul, MN. (http://www.health.state.mn.us/divs/eh/risk/guidance/pahmemo.html)

Anoka County
MINNESOTA

Standard Operating Procedure

Spill Response Plan

EMERGENCY CONTACT INFORMATION

Onsite Emergency Contact(s) Primary
(763) 324-4200

Emergency Response Contact(s)
Fire/Paramedics/Police: 911
Fire Non-Emergency Line: (763) 494-6300
MN Department of Health: (651) 201-5414
National Response Center: (800) 424-8802
[Other] [Business phone]

SPILL RESPONSE PLAN

Step 1: Approach the Scene

- Use safety first in responding to spills. Do not endanger yourself or others by entering a hazardous environment. If there is a fire or medical attention is needed, call 911 immediately.
- Avoid exposure. Approach the spill from upwind and stay clear of spills, vapors, fumes and smoke.

Step 2: Secure the Scene

- Isolate the spill.
- Keep people away from the scene; divert traffic and pedestrians as needed.
- If possible, stop the source of the spill.
- Eliminate any ignition sources.

Step 3: Identify the Hazards

- Attempt to identify the spilled material.
    - Characteristics (odor, color, sheen), labels/markings, container type, activities in the area, hazard warnings, etc.

Step 4: Assess the Situation

- Determine the appropriate first response actions and if additional response help is needed
- The response will be dictated by the size of the spill and the hazard:
    - Is there a fire, a spill, or a leak?
    - Is there a potential for it to mix with something else?
- Observe your surroundings:
    - Who/what is at risk?
    - Is an evacuation necessary?
    - What resources are required and readily available to contain the spill?

Step 5: Report the Spill

- Report spills that may cause pollution, such as toxic, flammable, corrosive and dangerous industrial chemical spills.
    - Minnesota has a reporting threshold of greater than five-gallons for petroleum spills. Spills of any quantity of all other chemicals or materials should be reported. When in doubt, report.
- Contact the Minnesota Department of Public Safety Duty Officer at 1-800-422-0798 (toll free) or 651-649-5451 (Metro area), if the spill of any substance or material may cause or has caused pollution of waters of the state.

Step 6: Contain the Spill

- Always wear the appropriate personal protective equipment, such as gloves, boots, and safety glasses. Know the limitations of the personal protective equipment.
- Place booms or available materials around the perimeter of the spill to keep it from spreading.
    - If the spill is a threat to any storm water conveyance, like street gutter, storm drain or inlet, swale, ditch, storm, or river, place absorbent between the spill and storm device.
- Apply absorbent materials starting from the downhill and outside edge of the spill.

Step 7: Clean Up the Spill

- If you have the proper training, small spills may be cleaned up according to the chemical label and your training.
    - Do not wash or hose down the spill into the street, ditch or storm drain.
    - If flammable liquid is spilled, ventilate the area and eliminate any possible sources of ignition.
    - Clean up the spills, leaks and drips quickly. Use “dry” clean-up methods, such as sweeping or shoveling. If the spill can be moved by wind, cover the material with sheeting to prevent spreading.
    - Place all clean-up waste in appropriate containers. If hazardous, insure that material is placed in a hazardous waste container.
    - Dispose of spill material in compliance with all Federal, State and Local regulations.
- If you do not have proper training, or the spill is a large spill, leave the area and notify Emergency Responders (911). Give the operator the spill location, chemical spilled and approximate amount.

Step 8: Complete Spill Documentation and Follow-up

- Clean and decontaminate all reusable spill cleanup equipment.
- Be sure to restock your spill response materials and personal protection equipment as soon as possible.
- Update facility spill records.