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# STORMWATER POLLUTION PREVENTION PROGRAM

## Century College

3300 Century Avenue North
White Bear Lake, MN 55110

AET Project No. P-0002258

**Date:**

August 19, 2021

**Prepared by:**

American Engineering Testing, Inc.
550 Cleveland Ave. North
St. Paul, Minnesota 55114

**Prepared for:**
Century College

www.amengtest.com

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# 1.0 INTRODUCTION

## 1.1 Purpose and Scope

Minnesota Rules Chapter 7090.1000 (MR 7090) defines municipal stormwater separate storm sewer systems (MS4s) required to be covered under the Minnesota Pollution Control Agency's (MPCA) 2020 General Permit MNR 040000. MR 7090 defines colleges with average daily user populations of 1,000 or more as MS4s. Therefore, Century College (the College) is eligible to be covered under MNR 040000.

This document serves as the College's written Storm Water Pollution Prevention Program (SWPPP) required under Section 13 of MNR 040000. This SWPPP presents a discussion of, and provides helpful tools/information for applicable waste load allocations, required stormwater management system mapping, annual reporting and record keeping, and the following minimum control measures (MCMs):

- MCM 1 – Public Education and Outreach,
- MCM 2 – Public Participation and Involvement,
- MCM 3 – Illicit Discharge Detection and Elimination,
- MCM 4 – Construction Site Stormwater Runoff Control,
- MCM 5 – Post Construction Stormwater Management, and
- MCM 6 – Pollution Prevention and Good Housekeeping.

## 1.2 Background

The College is a 2-year community and technical college serving over 10,000 students every year. Its address is 3300 Century Avenue North in White Bear Lake, Minnesota, 55110. The campus is divided into a west and east campus by Century Avenue, with the west campus located within the City of White Bear Lake and the east campus located in the City of Mahtomedi, Minnesota. Refer to **Figure 1** illustrating the location of the campus. The College is also located within the Valley Branch Watershed District (VBWD). Refer to **Figure 2** illustrating the boundaries of the VBWD relative to the location of the Century College Campus.

The College originally applied for coverage under the MPCA's MS4 general permit in 2013. As part of its the reapplication process in 2021 for continued coverage under 2013 MNR 040000, the College was required to determine an evaluation of its discharge(s) to Lake St. Croix by completing an MS4 Permit Total Maximum Daily Load (TMDL) Application. The location of Lake St. Croix relative to the College's campus is illustrated on **Figure 2**.

As part of performing this evaluation, the College worked with the MPCA and the VBWD to determine if it met the waste load allocation (WLA) for excess nutrients discharging to Lake St. Croix. The VBWD has determined that based on monitoring and modeling data it is meeting the Lake St. Croix WLA. Because the relevant portion of the College campus drains to and is part of the VBWD, the College is therefore also meeting its WLA requirement for Lake St. Croix.

Since it has been determined that the College meets the required WLA, it is not be required to implement any additional best management practices (BMPs) to control stormwater discharges from campus. If, in the future, it is determined that modifications to the College's operations could contribute to a potential WLA exceedance, or the VBWD determines the overall watershed determines it has an exceedance, the College may be required to resubmit an MS4 Permit Total Maximum Daily Load (TMDL) Application at that time. Refer to the information in **Attachment A** documenting Century Colleges evaluation of its compliance with the required WLA.

## 2.0 STORMWATER POLLUTION PREVENTION TEAM

### 2.1 Primary and Authorizing Contact

Mr. Kevin Wriskey, Safety Administrator for Century College, will be the primary contact for issues associated with this SWPPP. Mr. Wriskey's contact information is below.

Direct Phone Number: 651.747.4001
Email: kevin.wriskey@century.edu

The primary contract role includes:

- Creation and management of SWPPP,
- Conduct regular inspections,
- Review the SWPPP for updates,
- Payment of annual fees,
- Authorized Administrator for changes to the SWPPP, and
- Submission of annual report.

### 2.2 Backup Contact

Mr. Jason Philipp, Public Safety Director for Century College, will be the backup contact for issues associated with this SWPPP. Mr. Philipp's contact information is below.

Direct Phone Number: 651.779.5834
Email: jason.philipp@century.edu

## 3.0 DESCRIPTION OF CURRENT STORMWATER MANAGEMENT SYSTEM

### 3.1 General Drainage Patterns

As mentioned above, the Century College campus is divided into east and west portions by Century Avenue. The campus layout, along with the layout of the College's MS4, is illustrated on **Figure 3** (East Campus), **Figure 4** (West Campus – North) and **Figure 5** (West Campus – South). The following is a summary of drainage patterns for each portion of the campus.

**East Campus**

The east portion of campus consists of one main building which houses administrative and human resources offices, career and technical facilities, science facilities and library services. Equipment storage and maintenance out building are located in two smaller buildings northeast corner of the east campus. Paved parking lots are located north, east and south of the main building in addition to paved walkways. The remainder of the east campus consists mainly of greenspace including sediment basins, ponds and open areas.

Stormwater generated to the north of the main building is captured by catch basins and is directed to Pond/Basin E-1. Stormwater generated in the northern parking lot is also captured via areas of permeable paving and directed to Pond/Basin E-1. After treatment, stormwater is discharged from Pond/Basin E-1 through Outfall E-2 to the wetland directly across Century Avenue from Pond/Basin E-1.

Stormwater generated south of the main building is captured via catch basins or overland flow and is directed to Pond/Basins E-2, E-3 and E-4. After treatment in Pond/Basin E-2, stormwater is discharged to the wetland directly across Century Avenue via Outfall E-2. Pond/Basins E3 and E-4 discharge to the depressed grassy area in the southwest corner of the east campus where it is discharged to a wetland directly across Century Avenue through Outfall E-4. Catch basins located along the main entrance road to the east campus direct stormwater to a 12-inch storm sewer pipe that discharges to the wetland directly across Century Avenue through Outfall E-4.

Stormwater generated to the east of the main building is captured via catch basins, permeable paving, overland flow to a vegetated swale running north-south or overland flow directly to Pond/Basin E-5. Pond/Basin E-5 discharges off-site to the southeast via Outfall E-5.

Stormwater captured in perimeter ditching along Century Avenue is routed to separate catch basins/inlets along Century Avenue where it discharges to wetlands to the west via Outfall E-1 or to the outfall located in the northeast corner of the west portion of the campus.

As stated above, refer to **Figure 3** illustrating the locations of the pond/basins and outfalls mentioned above.

**West Campus**

The northern portion of the west campus contains one main building that houses administrative offices, sports facilities, theater and fine arts facilities, and the bookstore. A paved parking lot is located to the north of the main building in addition to paved walkways. A paved basketball court is located directly west of the main building. The remaining area of the northern portion is greenspace immediately surrounding the building.

The southern portion of the west campus is mainly greenspace, with the exception of paved walkways. Green space includes forested areas, wetlands, a softball field and a baseball field.

Stormwater from the northern parking lot is collected via catch basins and permeable paving and directed to one of two underground stormwater treatment systems located in the southwestern and southeastern portion of the parking lot. Stormwater captured from the paved basketball court is captured via catch basins to the east of the court, discharged to the south of the basketball court where the storm sewer daylights, and is directly discharged to the wetlands to the south of the main building.

Stormwater generated from the roof of the main building is either directed to the north to one of the two underground stormwater treatment systems or to the south and direct discharged to the wetland to the south of the main building.

After treatment in one of the two underground stormwater treatment systems, stormwater is discharged via structural pollution control devices W-1 or W-2 to the wetlands located to the south of the main building. The wetlands to the south of the main building discharge via overland flow or via Outfall W-1. The area of the softball and baseball fields discharges mainly via overland flow to nearby wetlands and other low-lying areas on or immediately surrounding the southern portion of the west campus.

### 3.2 Stormwater Treatment System Components

As mentioned above, Century College has several stormwater treatment features built into its overall management system. The following is a brief explanation of some of the main stormwater treatment features within the College's stormwater treatment system.

**East Campus**

One of the main stormwater treatment features on the East Campus is a rain garden (Pond/Basin E-1) located in the northwestern corner. As mentioned above, this pond mainly receives stormwater from catch basins and areas of permeable paving constructed within the northern parking lot. This rain garden treats stormwater via infiltration, filtration of solids and plant uptake

of nutrients. The rain garden is landscaped with plants and shrubs that thrive in a high moisture environment, similar to a wetland. Refer to **Figure 3** illustrating the location of this rain garden.

**Pond/Basin E-1: Rain garden pre-treats stormwater prior to discharge across Century Avenue to wetland complex on west campus.**

**Permeable Paving: This section of permeable paving contributes to the collection of stormwater generated in the northeastern portion of the parking lot on the East Campus and discharge to Pond/Basin E-1.**

Along with the rain garden, a majority of the stormwater generated and captured on the east campus is routed through one of four remaining separate stormwater treatment ponds/basins. Three of these remaining four ponds/basins, as mentioned previously, are labeled as Pond/Basin E-2 through E-4 on **Figure 3**. These ponds treat the stormwater by routing it through a filtration system constructed into the bottom of the pond/basin prior to it being discharged to the on-site wetland complex. This filtration system consists of perforated piping feeding into a constructed aggregate base layer through which stormwater is filtered prior to discharge.

The fifth pond/basin (Pond/Basin E-5) utilized for stormwater treatment is located at the east end of the east campus. Just west of Pond/Basin E-5 is a vegetated swale that collects and routes stormwater to Pond/Basin E-5. The discharge to this swale is fitted with a "beehive" outlet to control the discharge of solid wastes and garbage to Pond/Basin E-5. Pond/Basin E-5 discharges off-site to the southeast of the east campus via Outfall E-3. Outfall E-3 provides water level control in the pond to allow for the necessary detention, and associated settlement of solids, prior to discharge of stormwater from the site.

**Pond/Basin E-5: Final detention of stormwater generated on the eastern portion of the East Campus prior to discharge of off-site.**

## West Campus

A majority of the stormwater generated and captured on the west campus is routed through one of two separate underground stormwater treatment systems. Refer to **Figure 4** illustrating the locations of these systems on the west campus.

The design technology of these underground stormwater treatment systems is referred to as the StormTech Isolator Row system. These systems are designed to enhance the removal of Total Suspended Solids (TSS) from the stormwater before it is discharged to on-site or off-site surface waters.

The Isolator Row is a row of StormTech chambers that are surrounded with filter fabric and connected to an adjacent manhole for easy access. The fabric-wrapped chambers provide for the settling and filtration of sediment as stormwater rises in the isolator rows and passes through the filter fabric. The design allows stormwater to flow both vertically and horizontally through the system allowing sediment to accumulate within the Isolator Row, protecting the stormwater storage areas of the adjacent stone and chambers. Each of the underground StormTech Isolator Row systems discharge through a weir manhole which controls the rate of discharge to allow for proper settlement of TSS prior to discharge.


**StormTech System: View of isolator rows during construction.**

The StormTech Isolator Row systems are designed for easy maintenance as well. Refer to **Attachment B** for a copy of the StormTech Isolator Row Operations and Maintenance Manual for a more detailed description of operations and maintenance of the systems.

### 3.3 Receiving Waters

Stormwater from both the east and west campuses discharge to either an on-site wetland complex located on the west campus or directly off-site in the southeast corner of the east campus. As discussed above, most of the stormwater generated on both campuses is pre-treated prior to discharge to the wetland complex or before it is discharged off-site.

Lake St. Croix consists of the lower portion of the St. Croix River from Stillwater, Minnesota to Prescott, Wisconsin along the Minnesota and Wisconsin Border. Lake St. Croix is designated by the Minnesota Department of Natural Resources as impaired waters for TSS and elevated nutrients. Refer to **Figure 1** illustrating the location of Lake St. Croix relative to the Century Collect campus.

As mentioned above, the College worked with the MPCA and the VBWD to determine if it met the waste load allocation (WLA) for excess nutrients discharging to Lake St. Croix or not. The VBWD has determined that based on monitoring and modeling data it is meeting the Lake St. Croix WLA. Because the relevant portion of the College campus drains to and is part of the VBWD, the College is therefore also meeting its WLA requirement for Lake St. Croix.
Refer to **Attachment A** for documentation of this evaluation.

## 4.0 FACILITY OPERATIONS AND POTENTIAL CONTAMINANT EXPOSURE

Major facility operations that could negatively affect the quality of stormwater being generated at the site, and ultimately discharged from the site, include vehicle traffic, vehicle storage and maintenance, fuel storage, lawn and landscape maintenance, snow and ice management and various on-campus construction projects.

Vehicle traffic, storage and maintenance have the potential to involve spills of fuel and maintenance liquids onto the ground where they can potentially become exposed to the elements and be picked up in stormwater run-off. Along with daily traffic from staff, students and visitors, the College stores and maintains its campus maintenance vehicles and equipment within structures located at the east end of the east campus.

Fuel and chemical storage also provide an opportunity for spills to potentially being exposed to the elements that can be picked up in stormwater run-off. Century College owns nine above-ground storage tanks (ASTs), two oil filled electrical transformers, and two drums that collect waste food oil and grease. In total, the ASTs, transformers, and waste food and grease drums store 4,150 gallons of product. Century College also has one diesel Underground Storage Tank (UST) with a capacity of 20,000 gallons.


**Fuel Oil Storage: Aboveground fuel oil storage tank located east of main building on East Campus.**

Lawn and landscape maintenance requires the use of fertilizers, pesticides and herbicides that can be picked up by stormwater run-off. In addition, clippings from cutting the grass and trimmings from plants, shrubs and trees can also be generated and exposed to stormwater run-off if they are not cleaned up. These contaminants contribute to an increased nutrient load and solids in stormwater run-off if not properly managed prior to discharge.

Snow and ice removal requires the use of heavy equipment and road salt. Snow piles generated from plowing of the parking lots, driveways and sidewalks can contain solids and other contaminants picked up during snow removal. Residual salt from ice removal remains on driveways and sidewalks after melting. During the spring melting of snow and ice, these contaminants are picked up in stormwater run-off.

Construction projects taking place on campus expose soils that can be picked up in stormwater run-off from erosion and sedimentation during rainfall events. In addition, materials and chemicals used during construction (i.e. concrete, fuel, equipment maintenance, etc.) can generate spills/leaks that, if not cleaned up immediately, can get caught up in stormwater run-off during construction activities.

In an effort to limit the discharge of contaminants in stormwater from the above potential sources, the College has developed this written SWPPP. An effective SWPPP contains at least six components to help reduce the discharge of pollutants from stormwater. The following sections layout Minimum Control Measures (MCMs) implemented by the College as part of this SWPPP. These MCMs will be implemented by the College in an effort to reduce the discharge of

contaminated stormwater from the site to the maximum extent practicable. Sections 15-21 of General Permit MNR040000 discuss these specific MCMs that must be included in an effective SWPPP. A detailed discussion of the MCMs implemented at the College is presented in Sections 5.0 through 10.0 below.

## 5.0 PUBLIC EDUCATION PROGRAM (MCM 1)

In an effort to inform the public of the impact stormwater discharges can have on surface water bodies, General Permit MNR040000, Section 16 requires that the permittee develop a public education program. This public education program should include actions individuals, businesses and other organizations can take to help with the reduction of pollutants in stormwater discharge.

The College has established a public education program consisting of the following:

- The College hosts an annual Public Earth Day Event, for faculty, staff, students and the public. This event promotes best management practices for residents and the importance of eliminating yard run-off of fertilizers and pesticides/herbicides.
- The College grounds contains walking paths open to the public. Pet waste stations and educational signing have been installed in high public traffic areas, such as the walking paths. The west campus includes an area identified as Education Island. Education Island is made up of the eastern StormTech stormwater treatment system. Signage describing the design and operations of this system is included at the southern end of this system.

  Pet waste stations include an inventory of small trash bags so that residents can pick up pet waste rather than leave it behind. Information on these pet waste stations is also included in the Public Earth Day Event mentioned above.
- The College posts information in the College's weekly newsletter, the Wood Duck Weekly, to help communicate information about the SWPPP.

**Education Island: Signage posted explaining the operations of the StormTech System on the West Campus.**

## 6.0 PUBLIC PARTICIPATION PROGRAM (MCM 2)

Section 17 of General Permit MNR04000 requires that permittees implement a Public Participation Program to solicit public input on the SWPPP and provide opportunities for the public to participate in activities that help improve and protect water quality. Century College provides the following opportunities for public participation in its SWPPP:

- The College maintains a copy of this SWPPP on file. Hard copies are available to the public upon request. Questions and comments from the public who take the time to review the plan are always considered.
- The College hosts an annual SWPPP event that is open to the public. During this event, staff provides detail on the elements of the SWPPP, including detailed maps illustrating the layout of the College's MS4. In addition, the event usually includes a slide presentation of past SWPPP accomplishments. Time for public input is also provided.
- The Annual Earth Day Event discussed under Section 5.0 of this SWPPP is also used as a vehicle for public participation by providing the public with the opportunity ask questions and provide comments on the SWPPP.
- The College Plans an Annual Cleanup Day Event that provides the public with the opportunity to participate. In general, the event involves walking the campus to pick up garbage and waste, including waste that is exposed to the elements (i.e. stormwater run-off).

Century College documents information of its Public Participation Program by maintaining a file of all relevant written input and dates, locations, and estimated number of participants at events held relative to compliance with a specific permit item.

## 7.0 ILLICIT DISCHARGE CONTROL PROGRAM (MCM 3)

Section 18 of General Permit MNR040000 requires permittees to maintain and enforce a program to detect and eliminate illicit discharges into the facility's stormwater treatment/management system. The College has developed the following Illicit Discharge Control Plan elements and continues to enforce this program.

- The College has developed a Standard Operating Procedure (SOP) for limiting non-stormwater discharges and procedures for reporting and documenting illicit discharges. This SOP was prepared with input from the City of White Bear Lake and the City of Mahtomedi. As mentioned above, Century College lies within both White Bear Lake and Mahtomedi city limits and has therefore partnered with them to provide enforcement of illicit discharges. Refer to **Attachment C** for a copy of SOP for Limiting Non-Stormwater Discharges.

  Copies of this SOP can be obtained by contacting Kevin Wriskey (651.747.4001), Campus Safety Administrator. Employees of the College can also download a copy from the College's Health and Safety page on its intra-web site.

- A storm sewer system map illustrating all pipes 12 inches in diameter or greater, all stormwater outfalls, structural stormwater best management practices and all receiving waters is maintained by the College. Refer to **Figures 3, 4** and **5** included in this written SWPPP. In addition, the College maintains a map that identifies the locations of sources of potential illicit discharges. Refer to **Figure 6** included in this written SWPPP.

- The College has implemented a schedule for inspection of stormwater ponds, outfalls and permeable pavers on a quarterly basis. Other major stormwater structure BMPs (i.e. StormTech Systems) are inspected on an annual basis. These inspections incorporate the identification of illicit discharges. Refer to Section 9 of this SWPPP for a more detailed discussion of stormwater inspection requirements.

- The College provides training to its maintenance staff for the identification and response to illicit discharges on an annual basis. Refer to Section 9 of this SWPPP for a more detailed discussion of training requirements.

- As mentioned in Section 4.0 above, the College owns nine (9) above-ground storage tanks with a capacity of approximately 4,150 gallons and 1, 20,000-gallon underground storage tank. These tanks are the most significant source of potential illicit discharges on College property. These tanks store diesel fuel, oil, and food oil and grease.

In accordance with the Code of Federal Regulations, Chapter 40, Section 112 (40 CFR 112), the College has prepared a Spill Control and Countermeasure Plan (SPCC) that outlines the procedures, methods, and equipment used to comply with the EPA oil spill prevention, control and countermeasures standards, as well as inspection, training, and record-keeping requirements. This SPCC Plan has been developed under separate cover and implemented in conjunction with this SWPPP.

The College's Safety Administrator is primarily responsible for the implementation of this SPCC Plan. Copies of this SPCC Plan can be obtained by contacting Kevin Wriskey (651.747.4001), Campus Safety Administrator.

## 8.0 CONTRUCTION RUN-OFF CONTROL PROGRAM (MCM 4)

The College maintains at least two employees certified as Site Manager's through the University of Minnesota's Erosion and Stormwater Management Certification Program. When new staff are added, a determination as to whether they will become certified will be made at that time.

For construction activities that disturb an acre or more of soils, the College implements erosion and sediment control measures, and measures to control other potential construction specific discharges, in accordance with Minnesota Rules Chapter 7090. Minnesota Rules Chapter 7090 requires that the College and selected construction contractor, apply for coverage under General Permit MNR100001. Coverage under this permit requires the preparation and implementation of a project specific Construction Stormwater Pollution Prevention Plan during construction activities. Refer to **Attachment D** for a copy of the MPCA's current General Stormwater Construction Permit MNR100001 and the MPCA's written overview of the construction stormwater permit (wq-strm2-05, August 2018).

For construction activities that disturb less than an acre of soils, the College implements erosion and sediment control measures, and measures to control other potential construction specific discharges, through contract language, local ordinances, local permits, operational plans, construction plans and weekly construction meetings. Requirements presented in these control mechanisms are intended to be, at a minimum, as stringent as the requirements under Minnesota Rules Chapter 7090.

Copies of these regulatory mechanisms can be obtained by contacting the College's Safety Administrator, Kevin Wriskey, at 651-747-4001.

## 9.0 POST-CONTRUCTION RUN-OFF CONTROL PROGRAM (MCM 5)

As mentioned in Section 7.0 of this SWPPP, the College operates under an SOP it prepared in cooperation with the cities of White Bear Lake and Mahtomedi for the control and response of

illicit discharges. The College relies on the written ordinances of the cities of White Bear Lake and Mahtomedi to enforce control measures and discharges to the on-site stormwater management system. In addition, the College also cooperates with the VBWD relative to compliance with the overall WLA to Lake St. Croix (See Section 1.2 of the SWPPP).

As also discussed in Section 7.0, the College has prepared a SPCC Plan for implementation at the campus. This SPCC Plan includes procedures for operations, maintenance, inspections, and identification and response to illicit spills from on-site oil storage tanks.

In addition to the above-referenced controls, the College implements regular training and site inspections of its facilities.

Training programs maintained by the College include the following:

- Maintenance of University of Minnesota Construction Stormwater Site Management Certifications for at least two employees at all times.
- Annual training of facility maintenance staff on the components of this SWPPP. Training covers the MCMs discussed in this SWPPP. Information to include in this training can be found in the MPCA's guidance document entitled Pollution Prevention and the MS4 Program – A Guide on Utilizing Pollution Prevention Activities to Meet MS4 General Permit Requirements (wq-strm4-26). To access use this link: https://www.pca.state.mn.us/sites/default/files/wq-strm4-26.pdf

As part of the SWPPP, the College also conducts a regular inspection of the campus in an effort to verify the MS4 is operating efficiently and illicit discharges are identified, and response actions are taken. As mentioned in Section 7.0 of this SWPPP, the College conducts annual inspections of its major stormwater controls (i.e. StormTech Systems). Quarterly inspections are conducted on stormwater detention ponds, outlets and areas of impermeable paving. Refer to **Attachment E** for a copy of the Site Stormwater Inspection Forms utilized to document inspections and responses to issues identified during these inspections.

## 10.0 GOOD HOUSEKEEPING PROGRAM (MCM 6)

As mentioned in Section 7.0, the College maintains maps of the current stormwater management system and maps that identify areas of the facility that are potential sources of discharges to the stormwater management system. Operations on-campus that can contribute pollutants to stormwater discharges identified include the following:

- Equipment storage and maintenance.
- Hazardous waste disposal.

- Public parking lots.
- Salt storage.
- Vehicle storage and maintenance.
- Snow plowing.
- Lawn maintenance.

The College implements the following housekeeping measures to prevent or reduce pollutants in stormwater discharges:

- Regular inspections of facility grounds (See Section 9.0); and
- Regular training of employees charged with implementation of this SWPPP (See Section 9.0).

BMPs to be implemented as part of regular operations at the College include the following:

- Daily inspection/cleaning of the parking lots and grounds to identify and remove litter each morning on Monday-Friday and on Friday afternoons.
- Clean catch basins and outlet structures per regular inspections or as soon as an issue is identified.
- Reduce the mobilization of grass clippings through stormwater run-off by perimeter mowing first, blowing all clippings away from impermeable areas onto the turf. Any remaining clippings discharged onto the sidewalks will be blown off by backpack blowers.
- Parking lots are swept two times per year. The spring sweeping will be performed by a licensed contractor who will be responsible for proper disposal of salt and other winter contaminants. The fall sweeping will be performed by the College grounds staff. These materials will be disposed of with the College's construction debris.
- Snow and ice control is maintained by treating with brine as the preferred method when temperatures are conducive. With colder temperatures, parking lots will be treated with ClearLane, a rock salt which is prewet and treated with liquid magnesium chloride. The minimal amount of salt is applied to achieve the desired results.
- Salt/brine used to control snow and ice on campus will be covered at all times with a tarp by the private contractor engaged by the College, or College staff if applicable.
- The rain garden (Pond/Basin E-1) located on the East Campus is maintained every 3 weeks through the growing season, weeding and raking small rock back into place.
- Participation in MPCA's Smart Salting Training program.

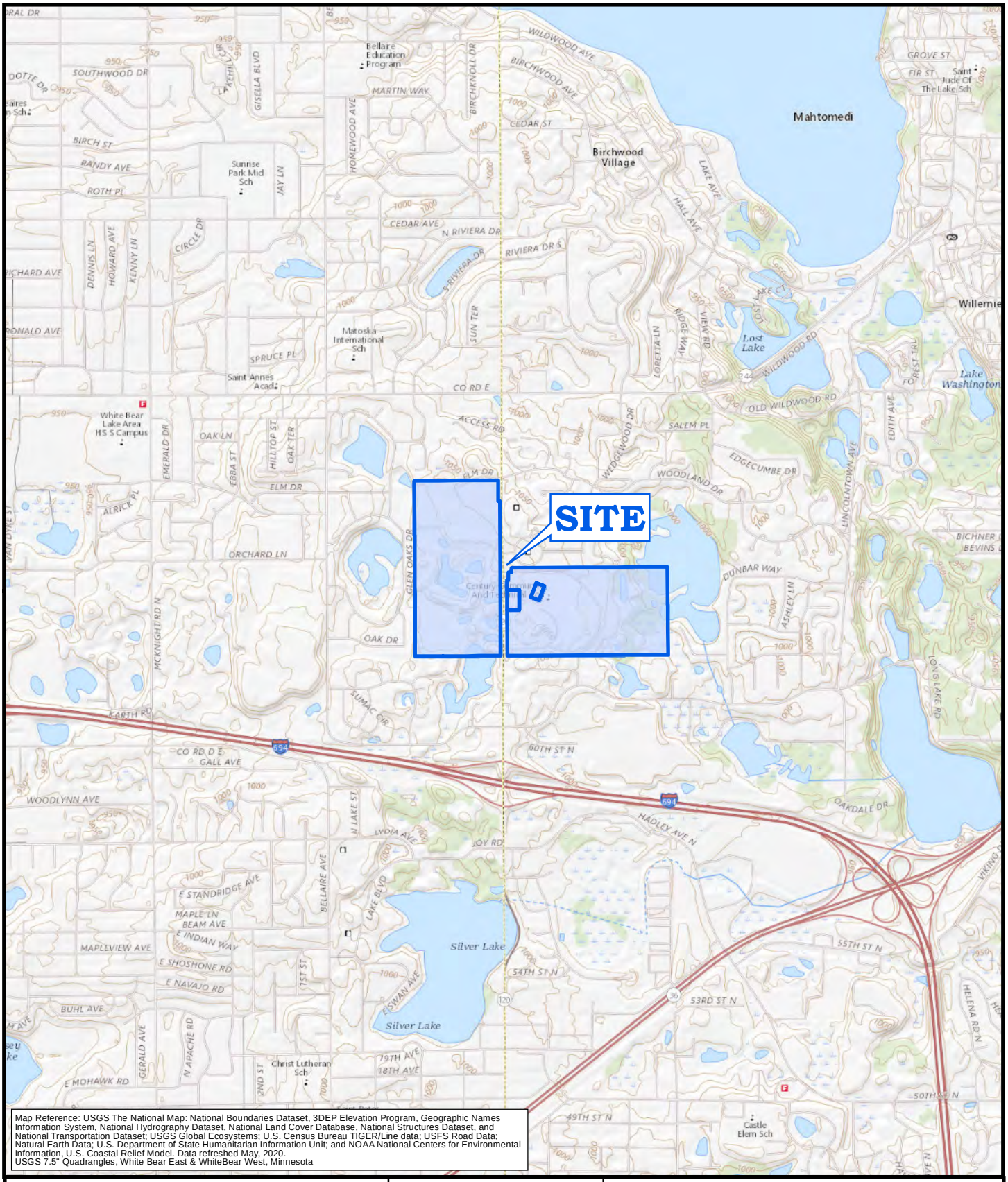
- Use of pre-treated salt that is pre-rinsed/wetted.
- Fertilizers and pesticides will not be applied in any buffer zones by College staff. All applications to wetlands, settling ponds, etc. will be performed by a licensed contractor specialized in applications to wetlands.
- Rinsing out of spray equipment will be conducted such that rinse water will be captured within the College's sanitary sewer system and treated by the municipal wastewater treatment system.

## 11.0 SWPPP REVIEW AND UPDATES

This SWPPP will be reviewed on an annual basis to confirm it is still accurate and applies to the appropriate campus operations. The review will be conducted by the College Safety Administrator. The review will focus on the following components of this SWPPP:

- Changes in staff and contact information.
- Changes in the current stormwater management system.
- Changes in stormwater best management practices.
- Changes/addition as in Public Education and Participation Programs.
- Changes in training procedures.
- Changes in inspection procedures.
- Overall changes to the College's operations that contribute to illicit releases or impacts to stormwater.

# Figures




Map Reference: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed May, 2020.
USGS 7.5" Quadrangles, White Bear East & WhiteBear West, Minnesota

AMERICAN ENGINEERING TESTING, INC.

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0 1,000 2,000

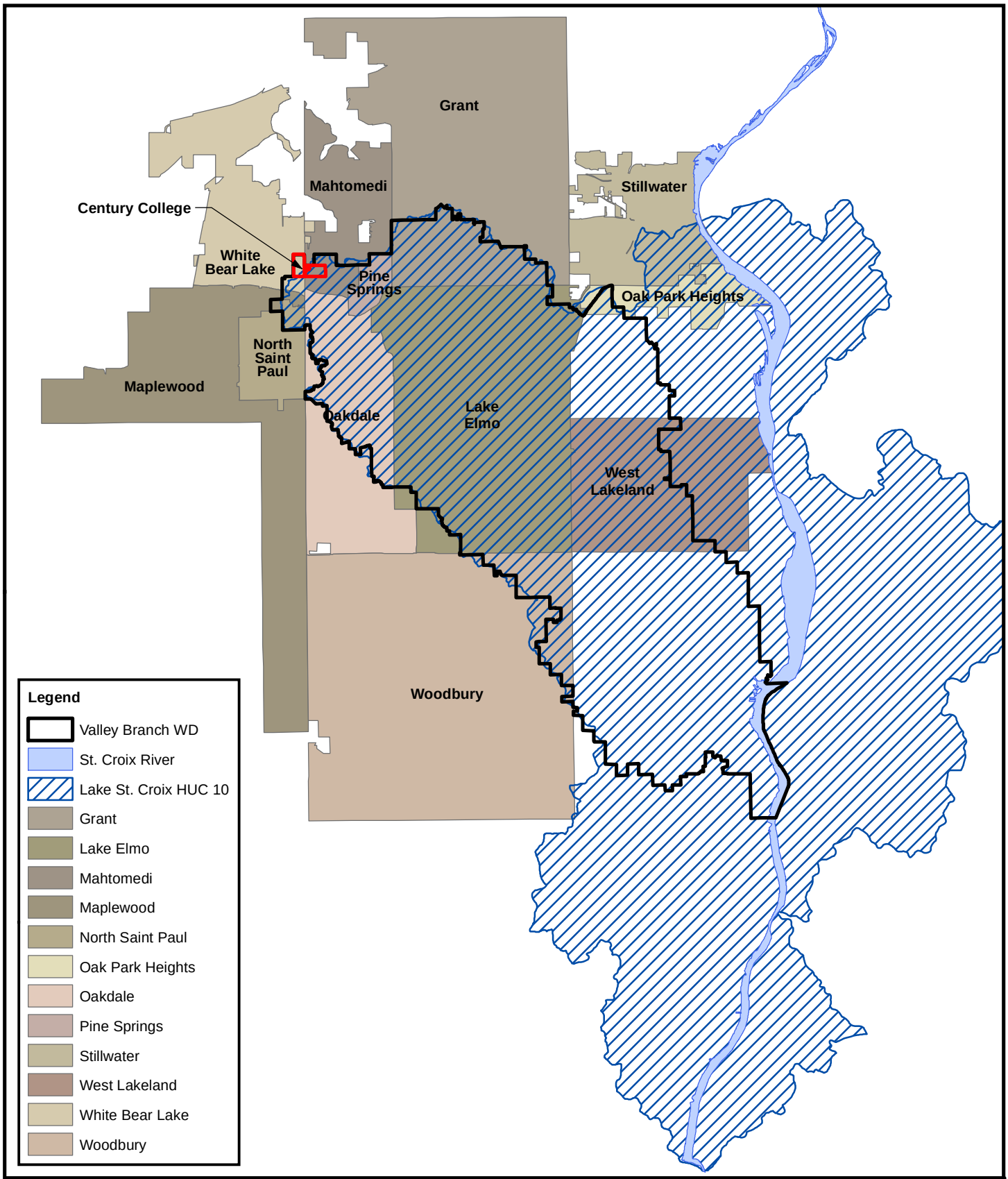
Feet

**Figure 1**
Site Location Map

Century College
White Bear Lake, Minnesota

Date: 07/06/2021 AET Project No. P-0002258

File: CCC_SWPP_F1_SLM.mxd PO 17938-1377

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Miles

**Figure 2**

Valley Branch Watershed Map

Century College
White Bear Lake, Minnesota

Date: 07/06/2021 AET Project No. P-0002258

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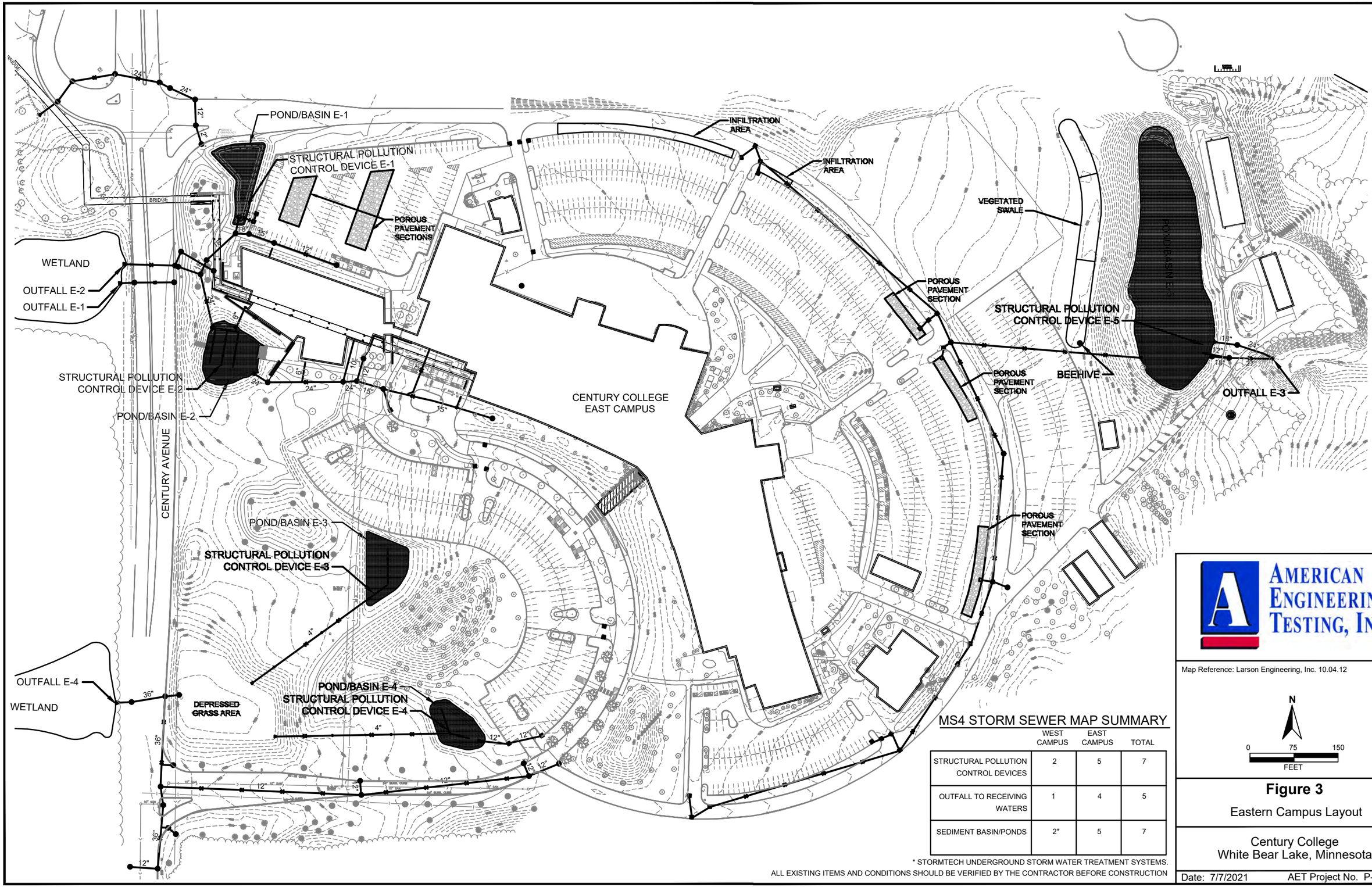


## MS4 STORM SEWER MAP SUMMARY

| | WEST CAMPUS | EAST CAMPUS | TOTAL |
|---|---|---|---|
| STRUCTURAL POLLUTION CONTROL DEVICES | 2 | 5 | 7 |
| OUTFALL TO RECEIVING WATERS | 1 | 4 | 5 |
| SEDIMENT BASIN/PONDS | 2* | 5 | 7 |

* STORMTECH UNDERGROUND STORM WATER TREATMENT SYSTEMS.

ALL EXISTING ITEMS AND CONDITIONS SHOULD BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION

AMERICAN ENGINEERING TESTING, INC.

Map Reference: Larson Engineering, Inc. 10.04.12

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0 75 150

FEET

**Figure 3**

Eastern Campus Layout

Century College
White Bear Lake, Minnesota

Date: 7/7/2021 AET Project No. P-0002258

File: CCC_SWPP_F3_EasternCampusLayout.dwg Fig3


## MS4 STORM SEWER MAP SUMMARY

| | WEST CAMPUS | EAST CAMPUS | TOTAL |
|---|---|---|---|
| STRUCTURAL POLLUTION CONTROL DEVICES | 2 | 5 | 7 |
| OUTFALL TO RECEIVING WATERS | 1 | 4 | 5 |
| SEDIMENT BASIN/PONDS | 2* | 5 | 7 |

* STORMTECH UNDERGROUND STORM WATER TREATMENT SYSTEMS.
ALL EXISTING ITEMS AND CONDITIONS SHOULD BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION

AMERICAN ENGINEERING TESTING, INC.

Map Reference: Larson Engineering, Inc. 10.04.12

N

0 75 150
FEET

**Figure 4**

Western Campus North Layout

Century College
White Bear Lake, Minnesota

Date: 7/7/2021 AET Project No. P-0002258

File: CCC_SWPP_F4_WesternCampusNorthLayout.dwg Fig4


## MS4 STORM SEWER MAP SUMMARY

| | WEST CAMPUS | EAST CAMPUS | TOTAL |
|---|---|---|---|
| STRUCTURAL POLLUTION CONTROL DEVICES | 2 | 5 | 7 |
| OUTFALL TO RECEIVING WATERS | 1 | 4 | 5 |
| SEDIMENT BASIN/PONDS | 2* | 5 | 7 |

* STORMTECH UNDERGROUND STORM WATER TREATMENT SYSTEMS.

ALL EXISTING ITEMS AND CONDITIONS SHOULD BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION

AMERICAN ENGINEERING TESTING, INC.

Map Reference: Larson Engineering, Inc. 10.04.12

N

0 75 150

FEET

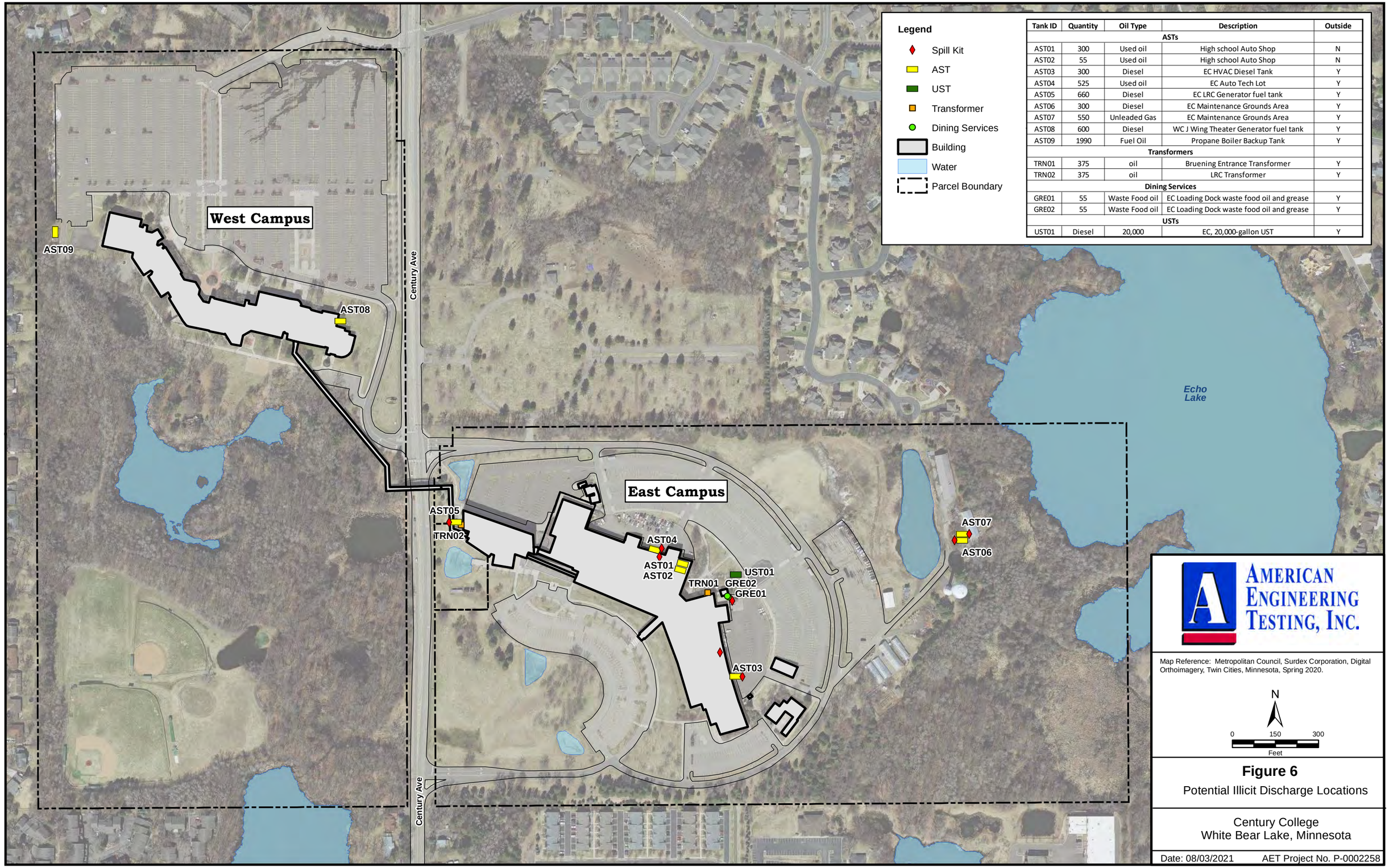
**Figure 5**

Western Campus South Layout

Century College
White Bear Lake, Minnesota

Date: 7/7/2021 AET Project No. P-0002258

File: CCC_SWPP_F5_WesternCampusSouthLayout.dwg Fig5




**Legend**

- Spill Kit
- AST
- UST
- Transformer
- Dining Services
- Building
- Water
- Parcel Boundary

| Tank ID | Quantity | Oil Type | Description | Outside |
|---|---|---|---|---|
| **ASTs** | | | | |
| AST01 | 300 | Used oil | High school Auto Shop | N |
| AST02 | 55 | Used oil | High school Auto Shop | N |
| AST03 | 300 | Diesel | EC HVAC Diesel Tank | Y |
| AST04 | 525 | Used oil | EC Auto Tech Lot | Y |
| AST05 | 660 | Diesel | EC LRC Generator fuel tank | Y |
| AST06 | 300 | Diesel | EC Maintenance Grounds Area | Y |
| AST07 | 550 | Unleaded Gas | EC Maintenance Grounds Area | Y |
| AST08 | 600 | Diesel | WC J Wing Theater Generator fuel tank | Y |
| AST09 | 1990 | Fuel Oil | Propane Boiler Backup Tank | Y |
| **Transformers** | | | | |
| TRN01 | 375 | oil | Bruening Entrance Transformer | Y |
| TRN02 | 375 | oil | LRC Transformer | Y |
| **Dining Services** | | | | |
| GRE01 | 55 | Waste Food oil | EC Loading Dock waste food oil and grease | Y |
| GRE02 | 55 | Waste Food oil | EC Loading Dock waste food oil and grease | Y |
| **USTs** | | | | |
| UST01 | Diesel | 20,000 | EC, 20,000-gallon UST | Y |

AMERICAN ENGINEERING TESTING, INC.

Map Reference: Metropolitan Council, Surdex Corporation, Digital Orthoimagery, Twin Cities, Minnesota, Spring 2020.

N

0 150 300

Feet

# Figure 6

Potential Illicit Discharge Locations

Century College
White Bear Lake, Minnesota

Date: 08/03/2021 AET Project No. P-0002258

File: CCC_SWPP_F6_IllicitDischarge.mxd PO 17938-1377

# Attachment A

Waste Load Allocation Compliance Documentation

AET Project No. P-0002258

## Hesse, Eric

**From:** Bosch, Anna (MPCA) <anna.bosch@state.mn.us>
**Sent:** Monday, May 17, 2021 11:34 AM
**To:** Wriskey, Kevin L; Nistler, Nicholas (MPCA)
**Cc:** Auer, Ken A; Philipp, Jason P; Lebens, Phil
**Subject:** RE: Incomplete MS4 Part 2 Permit Application: Century College
**Attachments:** MnSCU-Century College wq-strm4-62_5.17.2021.xlsm; Valley Branch WD.jpg

Good morning Kevin,
Per our conversation this morning, attached you will find a map which shows the Valley Branch Watershed District area, as well as a partially revised TMDL application for Century College. Please review the information that I entered on the 'Reductions for WLA met' tab, and complete the 'BMPs for WLA met' tab.
On Q 174 of the PDF application; you can add the following statement (or something similar):
The Valley Branch Watershed District (VBWD) has determined that based on monitoring and modeling data it is meeting the Lake St. Croix wasteload allocation (WLA); because the relevant portion of the Century College campus drains to/is part of the VBWD, the College is therefore also meeting its WLA for Lake St. Croix.

Please resubmit your completed TMDL application spreadsheet and MS4 Part 2 Application (PDF) to ms4permitprogram.pca@state.mn.us by the previously agreed June 11 deadline.
Regards,

**Anna Bosch** | Stormwater TMDL Liaison
218-316-3929

**From:** Wriskey, Kevin L <kevin.wriskey@century.edu>
**Sent:** Monday, April 19, 2021 10:54 AM
**To:** Nistler, Nicholas (MPCA) <nicholas.nistler@state.mn.us>; PCA MS4 Permit Program, MPCA (MPCA) <ms4permitprogram.pca@state.mn.us>; Bosch, Anna (MPCA) <anna.bosch@state.mn.us>
**Cc:** Auer, Ken A <Kenneth.Auer@minnstate.edu>; Philipp, Jason P <jason.philipp@century.edu>; Lebens, Phil <phil.lebens@century.edu>
**Subject:** RE: Incomplete MS4 Part 2 Permit Application: Century College



Good Morning All,

Attached you will find the updated MS4 SWPPP Document and TMDL Application for Century College.

Thank you,

**KEVIN WRISKEY**
**Safety Administrator, Century College**
kevin.wriskey@century.edu
t: 651-747-4001
3300 Century Avenue North, White Bear Lake, MN 55110
https://www.century.edu | A MEMBER OF MINNESOTA STATE

**From:** Nistler, Nicholas (MPCA) <nicholas.nistler@state.mn.us>
**Sent:** Tuesday, April 13, 2021 2:13 PM
**To:** Wriskey, Kevin L <kevin.wriskey@century.edu>
**Cc:** Bosch, Anna (MPCA) <anna.bosch@state.mn.us>
**Subject:** Incomplete MS4 Part 2 Permit Application: Century College

Hi Kevin,

Thank you for submitting your Stormwater Pollution Prevention Program (SWPPP) Document (i.e., your MS4 Part 2 Permit Application and any associated documents) for coverage under the 2020 Small Municipal Separate Storm Sewer Systems (MS4) General Permit MNR040000.

The MPCA is required to provide public notice and opportunity for hearing on your proposed SWPPP Document. Based on our review as described by Minn. Stat. § 116.03, subd. 2b(d), we have determined that your SWPPP Document is incomplete. You must address the following incomplete items and resubmit the SWPPP Document within seven days from the date of this email to ms4permitprogram.pca@state.mn.us:

For questions 141 – 155, reference your custom MS4 Permit TMDL Application (Excel spreadsheet), which is attached to this email.

- 141. Change check box to "Yes" as Century College has an applicable WLA for bacteria.
- 142.-145. You must answer questions 142 and 145; if applicable also answer questions 143 and 144.
- 146. Change check box to "Yes" as Century College has an applicable WLA for chloride.
- 147.-150. You must answer questions 147, 148, and 150; if applicable also answer question 149.
- 155. Change check box to "Yes" as Century College has an applicable WLA for TP. Therefore, you must complete and submit the MS4 Permit TMDL Application, which is attached to this email. Please attach it to the submittal email with your updated MS4 Part 2 Permit Application.

Changes to the SWPPP Document other than the issues identified above are not advised. If you must make additional edits, indicate those changes in your resubmittal email.

If you cannot address the incomplete items within seven days, you will need to propose and submit a reasonable schedule within seven days from the date of this email.

If you have any questions, please contact me at nicholas.nistler@state.mn.us or 218-302-6670. For questions regarding the MS4 Permit TMDL Application, please contact Anna Bosch at 218-316-3929 or anna.bosch@state.mn.us.

Thank you,

**Nick Nistler** | Environmental Specialist

Minnesota Pollution Control Agency (MPCA)
Municipal Division
525 Lake Avenue South Suite 400 | Duluth, MN | 55802
218-302-6670
nicholas.nistler@state.mn.us | www.pca.state.mn.us

MINNESOTA POLLUTION CONTROL AGENCY

*Our mission is to protect and improve the environment and human health.*

## Documentation for Waste load Allocations being met (permit item 12.10)

Fill in the following table for each applicable oxyen demand, nitrate, TSS and/or TP WLA you are claiming to meet using the MPCA-approved method. This should either demonstrate the cumulative estimated reductions from BMPs that serve to meet the MS4 WLA reductions included in the TMDL report OR demonstrates the MS4's existing load meets the WLA. For more guidance on completing this tab, see:

https://stormwater.pca.state.mn.us/index.php?title=Guidance_for_completing_the_MS4_Permit_TMDL_Application_Form#12.10_Reductions_for_WLAs_met_tab

| Required | Cumulative Estimated Reductions - Required | | Required | Required if "other" selected in column D | Required | Required | Required if WLA is categorical | Required if WLA is categorical | Optional |
|---|---|---|---|---|---|---|---|---|---|
| TMDL project name, waterbody and pollutant | Cumulative estimated reduction-How are you claiming to meet the WLA? | Cumulative estimated reduction (Enter value corresponding to units specified in Column B) | Method(s) used to calculate | Name of other model | Do you have the calculations available on file? | Is this part of a categorical WLA? (See Column E on Applicable WLAs determination tab) | If part of a Categorical WLA, how did you determine your portion of the WLA? | What is your portion of the categorical WLA? (Include units) | Notes |
| Lake St. Croix Excess Nutrient TMDL-St. Croix-(82-0001-00)-TP | Loading rate (lb/ac/yr) | <0.19 | Other | Monitoring per VBWD | No | Yes | Other | 0.19 lbs/ac/yr | TMDL WLA compliance based on annual TP loading for VBWD using flow and water quality monitoring data and FLUX modeling for Rest Area Pond (Discharge from Project 1007; 2006-2020), Valley Creek (1999-2016 as provided by Metropolitan Council), and Kelles Creek (2007-2020). The estimated total average annual TP loads were summed for the three discharges and then divided by the total watershed area to estimate the annual loading rate per acre. The monitoring data reflects all pollutant removals by BMPs implemented in the watershed as well as any pollutant removals by lakes and wetlands within the watershed as well. There are several areas of the watershed that are landlocked that do not contribute discharges to Lake St. Croix and water level and flow monitoring data shows that there are extended period of time where Rest Area Pond is below its outlet elevation and does not discharge to Lake St. Croix. |

## BMPs (Best Management Practices) for Wasteload Allocations being met (permit item 12.10)

Fill in the following table with a list of all stormwater BMPs implemented to achieve the applicable WLA. For structural BMPs, it is required to include the BMP type, year implemented, location in geographic coordinates (x coordinate and y coordinate), and owner. Then put an "X" in the boxes for the TMDL that corresponds with each BMP. Also make sure to complete the tab, "Reduction for WLAs met" worksheet. For more guidance on completing this tab, see:

https://stormwater.pca.state.mn.us/index.php?title=Guidance_for_completing_the_MS4_Permit_TMDL_Application_Form#12.10_BMPs_for_WLAs_met_tab

For the "Best Management Practice/Activity" column, please use the dropdown (click on downward arrow to see options) whenever possible.

| Required | Optional | Required field | Optional | Geographic coordinates required if not autofilled with "NA" | | Required | Required if cell says "Enter owner" |
|---|---|---|---|---|---|---|---|
| Best Management Practice/Activity | BMP description (optional) | Implementation Year(s) | Are you lumping multiple BMPs? | X coordinate (e.g. -93.38494434) | Y coordinate (e.g., 45.21049133) | Owner | Other owner |
| Constructed_basin | Wet pond/wet detention pond | 2010 | No | -92.987804 | 45.042563 | Permittee (you) | NA |
| Constructed_basin | Wet pond/wet detention pond | 2010 | No | -92.986548 | 45.039296 | Permittee (you) | NA |
| Filter | Bioretention with underdrain (rain garden) | 2010 | No | -92.984156 | 45.042434 | Permittee (you) | NA |
| Constructed_basin | Wet pond/wet detention pond | 2010 | No | -92.984199 | 45.041721 | Permittee (you) | NA |
| Constructed_basin | Wet pond/wet detention pond | 2010 | No | -92.983212 | 45.04069 | Permittee (you) | NA |
| Constructed_basin | Wet pond/wet detention pond | 2010 | No | -92.983855 | 45.040372 | Permittee (you) | NA |
| Constructed_basin | Wet pond/wet detention pond | 2010 | No | -92.97803 | 45.041577 | Permittee (you) | NA |
| Constructed_basin | Wetland | 1967 | No | -92.985357 | 45.040137 | Permittee (you) | NA |
| Constructed_basin | Wetland | 1967 | No | -92.985239 | 45.041843 | Permittee (you) | NA |
| Infiltrator | Underground infiltration | 2011 | No | -92.986245 | 45.044942 | Permittee (you) | NA |
| Supplemental_employee_education_training | Employee education | 2006 | | NA | NA | Permittee (you) | NA |
| Supplemental_street_sweeping | Vacuum sweeping | 2006 | | NA | NA | Permittee (you) | NA |
| Filter | Permeable pavement with underdrain | 2012 | No | -92.979795 | 45.041963 | Permittee (you) | NA |
| Filter | Permeable pavement with underdrain | 2011 | No | -92.986375 | 45.045429 | Permittee (you) | NA |
| Filter | Permeable pavement with underdrain | 2012 | No | -92.979509 | 45.041691 | Permittee (you) | NA |
| Manufactured_device | Oil/grit separator | 1968 | No | NA | NA | Permittee (you) | NA |
| Establish_ordinance | Pet waste | 2012 | No | NA | NA | Permittee (you) | NA |
| Improved_lawn_turf_vegetation_soil_practices | Nutrient (fertilizer) management | 2010 | No | NA | NA | Permittee (you) | NA |

# Attachment B

StormTech Isolator Row Operations and Maintenance Manual

AET Project No. P-0002258

## Save Valuable Land and Protect Water Resources

StormTech®
*Detention • Retention • Recharge*
Subsurface Stormwater Management℠

# Isolator™ Row O&M Manual

StormTech® Chamber System for Stormwater Management

# 1.0 The Isolator™ Row

## 1.1 INTRODUCTION

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row is a patent pending technique to inexpensively enhance Total Suspended Solids (TSS) removal and provide easy access for inspection and maintenance.

*Looking down the Isolator Row from the manhole opening, woven geotextile is shown between the chamber and stone base.*

## 1.2 THE ISOLATOR™ ROW

The Isolator Row is a row of StormTech chambers, either SC-310, SC-740 or MC-3500 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for settling and filtration of sediment as storm water rises in the Isolator Row and ultimately passes through the filter fabric. The open bottom chambers and perforated sidewalls allow storm water to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row protecting the storage areas of the adjacent stone and chambers from sediment accumulation.

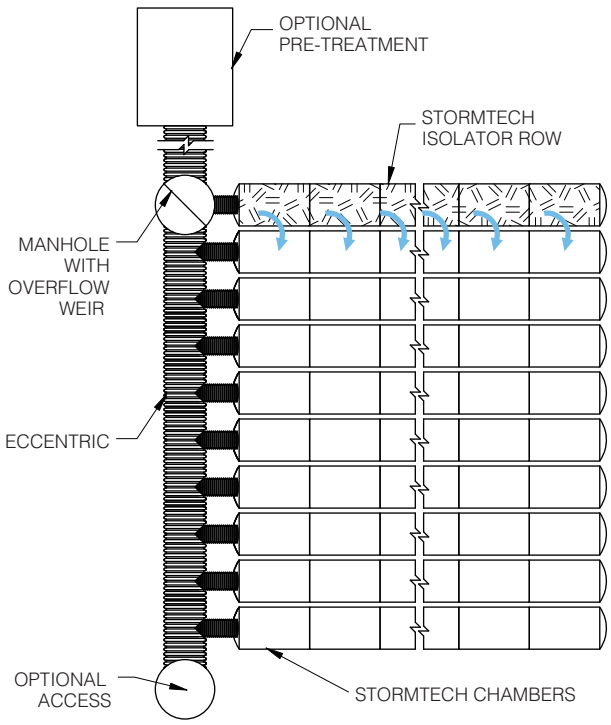
Two different fabrics are used for the Isolator Row. A woven geotextile fabric is placed between the stone and the Isolator Row chambers. The tough geotextile provides a media for storm water filtration and provides a durable surface for maintenance operations. It is also designed to prevent scour of the underlying stone and remain intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the perforations in the sidewall of the chamber.

The Isolator Row is typically designed to capture the "first flush" and offers the versatility to be sized on a volume basis or flow rate basis. An upstream manhole not only provides access to the Isolator Row but typically includes a high flow weir such that storm water flowrates or volumes that exceed the capacity of the Isolator Row overtop the over flow weir and discharge through a manifold to the other chambers.

The Isolator Row may also be part of a treatment train. By treating storm water prior to entry into the chamber system, the service life can be extended and pollutants such as hydrocarbons can be captured. Pre-treatment best management practices can be as simple as deep sump catch basins, oil-water separators or can be innovative storm water treatment devices. The design of the treatment train and selection of pretreatment devices by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, the Isolator Row is recommended by StormTech as an effective means to minimize maintenance requirements and maintenance costs.

*Note: See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row.*

**StormTech Isolator Row with Overflow Spillway**
(not to scale)



# 2.0 Isolator Row Inspection/Maintenance

## 2.1 INSPECTION

The frequency of Inspection and Maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

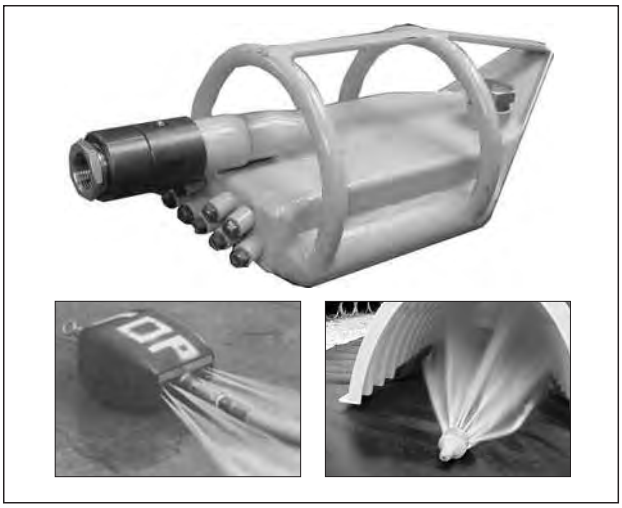
At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

The Isolator Row incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row, clean-out should be performed.

## 2.2 MAINTENANCE

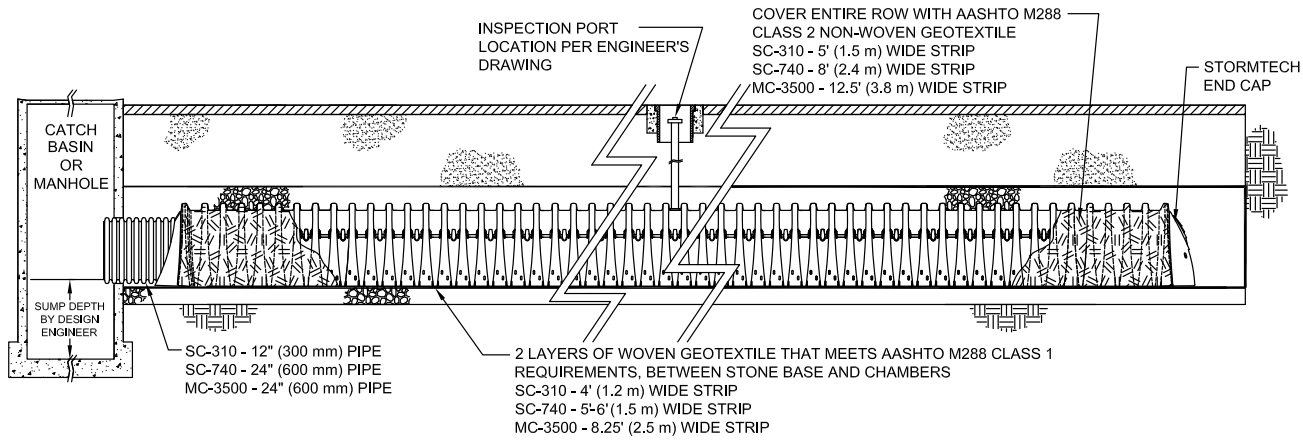
The Isolator Row was designed to reduce the cost of periodic maintenance. By “isolating” sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.



*Examples of culvert cleaning nozzles appropriate for Isolator Row maintenance. (These are not StormTech products.)*

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45” are best. Most JetVac reels have 400 feet of hose allowing maintenance of an Isolator Row up to 50 chambers long. **The JetVac process shall only be performed on StormTech Isolator Rows that have AASHTO class 1 woven geotextile (as specified by StormTech) over their angular base stone.**

**StormTech Isolator Row** (not to scale)



# 3.0 Isolator Row Step By Step Maintenance Procedures

**Step 1)** Inspect Isolator Row for sediment

A) Inspection ports (if present)

i. Remove lid from floor box frame

ii. Remove cap from inspection riser

iii. Using a flashlight and stadia rod, measure depth of sediment and record results on maintenance log.

iv. If sediment is at, or above, 3 inch depth proceed to Step 2. If not proceed to step 3.

B) All Isolator Rows

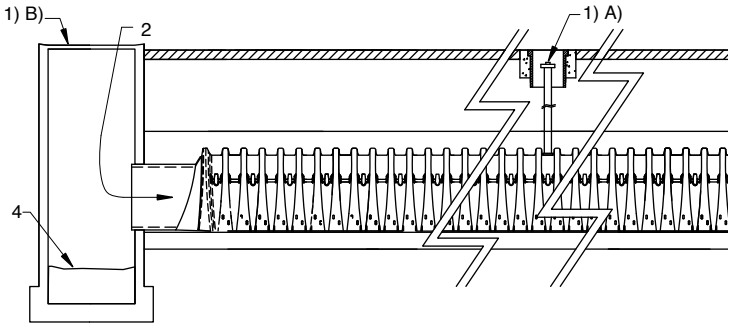
i. Remove cover from manhole at upstream end of Isolator Row

ii. Using a flashlight, inspect down Isolator Row through outlet pipe

1. Mirrors on poles or cameras may be used to avoid a confined space entry
2. Follow OSHA regulations for confined space entry if entering manhole

iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches) proceed to Step 2. If not proceed to Step 3.

**StormTech Isolator Row** (not to scale)




**Step 2)** Clean out Isolator Row using the JetVac process

A) A fixed culvert cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable

B) Apply multiple passes of JetVac until backflush water is clean

C) Vacuum manhole sump as required

**Step 3)** Replace all caps, lids and covers, record observations and actions

**Step 4)** Inspect & clean catch basins and manholes upstream of the StormTech system

**Sample Maintenance Log**

| Date | Stadia Rod Readings | | Sediment Depth (1) - (2) | Observations/Actions | Inspector |
|---|---|---|---|---|---|
| | Fixed point to chamber bottom (1) | Fixed point to top of sediment (2) | | | |
| 3/15/01 | 6.3 ft. | none | | New installation. Fixed point is CI frame at grade | djm |
| 9/24/01 | | 6.2 | 0.1 ft. | Some grit felt | sm |
| 6/20/03 | | 5.8 | 0.5 ft. | Mucky feel, debris visible in manhole and in Isolator row, maintenance due | rv |
| 7/7/03 | 6.3 ft. | | 0 | System jetted and vacuumed | djm |

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20 Beaver Road, Suite 104 | Wethersfield | Connecticut | 06109
860.529.8188 | 888.892.2694 | fax 866.328.8401 | www.stormtech.com

# Attachment C

Standard Operating Procedure for Limiting Non-Stormwater Discharges

AET Project No. P-0002258

**CENTURY COLLEGE**
**STANDARD OPERATING PROCEDURE FOR LIMITING ILLICIT AND NON-STORMWATER DISCHARGES**

## SECTION I. PURPOSE/INTENT

The purpose of this Standard Operating Procedure (SOP) is to provide for the health, safety, and general welfare of the students, faculty, and staff of Century College through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This SOP identifies typical non-storm water discharges, establishes methods for locating non-storm water discharges, and establishes methods for responding to non-storm water discharges that enter into the College's municipal separate storm sewer system (MS4). This SOP has been established in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process.

## SECTION II. RESPONSIBILITY FOR ADMINISTRATION

The Safety Administrator, along with public safety management, and facility maintenance staff of Century College shall administer, implement, and enforce the provisions of this SOP.

## SECTION III. ILLICIT DISCHARGE PROHIBITION AND DEFINITION

No person shall discharge, or cause to be discharged, any materials, including but not limited to pollutants or waters containing any pollutants, into the College's storm drain system or watercourses that cause or contribute to a violation of applicable water quality standards, other than the natural flow of stormwater.

The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:

1. The following discharges are exempt from discharge prohibitions established by this SOP: water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising ground water, ground water infiltration to storm drains, uncontaminated pumped ground water, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wet-land flows, swimming pools (if DE chlorinated - typically less than one PPM chlorine), firefighting activities, and any other water source not containing Pollutants.
2. Discharges specified in writing by the authorized enforcement agency as being necessary to protect public health and safety.
3. Dye testing is an allowable discharge, but requires a verbal notification to the authorized enforcement agency prior to the time of the test.
4. The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

## SECTION IV. REQUIREMENTS TO PREVENT, CONTROL, AND REDUCE STORMWATER POLLUTANTS BY THE USE OF BEST MANAGEMENT PRACTICES

Century College will identify Best Management Practices (BMPs) for any activity, operation, or facility which may cause or contribute to pollution or contamination of storm water, the storm drain system, or waters of the U.S.

Additionally, the College, under its current MS4 permit with the MPCA, will utilize the various Minimum Control Measures (MCMs)to control and reduce non-storm water discharges into the College's MS4.

In an effort to prevent, control and reduce stormwater pollutants into the College's MS4, the College has developed a written Stormwater Pollution Prevention Program (SWPPP) to be implemented across the College grounds.

## SECTION V. WATERCOURSE PROTECTION

The College shall keep and maintain all watercourses within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse.

## SECTION VI. MONITORING OF DISCHARGES

The College shall inspect facilities subject to regulation under this SOP as often as may be necessary to determine compliance with this SOP, the MPCA's current General Permit MNR 040000, and its written SWPPP.

## SECTION VII. NOTIFICATION OF SPILLS

Notwithstanding other requirements of law, as soon as any Century College Grounds or Public Safety employee has information of any known or suspected release of materials which are resulting, or may result in, illegal discharges or pollutants discharging into storm water, the storm drain system, or water of the U.S., said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release.

In the event of such a release of **hazardous** materials, said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. The following provides steps to reporting if a release of hazardous materials is witnessed or documented:

- Notify 911 immediately is there is a perceived threat to human health.
- Notify the College's Public Safety Administrator, Kevin Wriskey, at 651-647-4001.
- Notify the Minnesota Department of Public Safety State Duty Officer at 800-422-0798 or 651-649-5451 (Metro Area). Be prepared to supply the following information:
    - Name, telephone number
    - Date, time and location of incident
    - Whether emergency officials have been notified
    - Responsible party information (if known) including name of individual or business and telephone number
    - Surface waters or sewers impacted

- Details of what happened or is happening

In the event of a release of **non-hazardous** materials, said person shall notify the authorized enforcement agency in person or by phone or facsimile no later than the next business day. The following provides steps to reporting if a release of non-hazardous materials is witnessed or documented:

- Notify the College's Public Safety Administrator, Kevin Wriskey, at 651-647-4001.
- Notify the Minnesota Department of Public Safety State Duty Officer at 800-422-0798 or 651-649-5451 (Metro Area). Be prepared to supply the following information:
  - Name, telephone number
  - Date, time and location of incident
  - Whether emergency officials have been notified
  - Responsible party information (if known) including name of individual or business and telephone number
  - Surface waters or sewers impacted
  - Details of what happened or is happening

**DOCUMENT NAME AND BADGE NUMBER OF INDIVIDUAL DUTY OFFICER WHO INFORMATION WAS REPORTED TO.**

After reporting of either a release of hazardous or non-hazardous releases or spills to the College's MS4, the College's Public Safety Administrator will be responsible for documenting responses and corrective actions. A record of response actions will be maintained on file at the College's Office of Public Safety and include the following:

- Information supplied in report to the State Duty officer
- Name and badge number of individual duty officer
- Corrective actions taken
- Actions taken to prevent future occurrences, if applicable
- Fines or penalties enforced

**SECTION VIII. ENFORCEMENT**

Century College lies within the cities of White Bear Lake and Mahtomedi and has partnered with these municipalities in order to provide enforcement, if necessary. Enforcement and/or fines are stipulated by the local municipality's ordinances. In addition, enforcement actions and fines by the Minnesota Pollution Control Agency (MPCA), emergency responders and other state, county and local agencies will be adhered to.

# Attachment D

Current MPCA Construction Stormwater General Permit
MNR100001

AET Project No. P-0002258

MINNESOTA POLLUTION CONTROL AGENCY

**AUTHORIZATION TO DISCHARGE**

**STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY**

**UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)/**

**STATE DISPOSAL SYSTEM (SDS) PROGRAM**

**MNR100001**

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| **Permittee :** | Multiple |
| **General Permit Name:** | Construction Stormwater General Permit |
| **Issuance date:** | August 1, 2018 |
| **Expiration date:** | July 31, 2023 |

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes Permittees seeking coverage under this general permit to discharge stormwater associated with construction activity to waters of the state of Minnesota.

The goal of this permit is to reduce pollutant levels in point source discharges and protect water quality in accordance with the U.S. Clean Water Act, Minnesota statutes and rules, and federal laws and regulations.

This permit is effective on the issuance date identified above. This permit expires at midnight on the expiration date identified above.

*Signature*: Mark Schmitt

*This document has been electronically signed.*

*for the* Minnesota Pollution Control Agency

Mark Schmitt
Division Director
Municipal Division

**Permit application:**
Submit via the MPCA Online eServices Portal at
https://rsp.pca.state.mn.us/

**Questions on this permit?**
Contact eServices at
651-757-2728 or 1-844-828-0942

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| 1.1 | **Permit Coverage**. [Minn. R. 7090] |
| 1.2 | This permit is required for construction activity that results in land disturbance of equal to or greater than one (1) acre or if a project is part of a common plan of development or sale that ultimately will disturb greater than one (1) acre, and authorizes, subject to the terms and conditions of this permit, the discharge of stormwater associated with construction activity. [Minn. R. 7090] |
| 1.3 | Construction activity covered by this permit cannot commence until coverage under this permit is effective as described in item 3.3 through 3.4 or, if applicable, until the Minnesota Pollution Control Agency (MPCA) has issued an individual National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) construction stormwater permit for the project. [Minn. R. 7090] |
| 1.4 | This permit covers all areas of the State of Minnesota except land wholly within the boundaries of a federally recognized Indian Reservation owned by a tribe or a tribal member or land held in trust by the federal government for a tribe or tribal member. [Minn. R. 7090] |
| 1.5 | Coverage under this permit is not required when all stormwater from construction activity is routed directly to and treated by a "treatment works," as defined in Minn. Stat. Sect. 115.01, subd. 21, operated under an individual NPDES/SDS permit with a Total Suspended Solids (TSS) effluent limit. [Minn. R. 7090] |
| 1.6 | This permit covers ongoing projects covered under any previous construction stormwater permit that are not complete on the issuance date of this permit. Permittees must either remain in compliance with the previous permit and terminate coverage within 18 months of the issuance date of this permit or comply with this permit, including updating the Stormwater Pollution Prevention Plan (SWPPP), within the 18-month period. Permittees of previously permitted projects are not required to incorporate any additional requirements regarding the permanent stormwater treatment system included in this reissued permit. [Minn. R. 7090] |
| 1.7 | Coverage for projects that extend beyond the expiration date of this permit remains effective for a grace period covering project completion and Notice of Termination (NOT) submittal. If Permittees cannot complete projects during the grace period, the MPCA will extend coverage under the next permit and permittees must comply with the requirements of the new permit including updating the SWPPP. Permittees are not required to follow changes to the permanent stormwater treatment section of the next permit. [Minn. R. 7090] |
| 2.1 | **Prohibitions and Limitations of Coverage**. [Minn. R. 7090] |
| 2.2 | The owner must develop a complete and accurate SWPPP that complies with item 5.2 prior to submitting the application for coverage and starting construction activity. Failure to prepare a SWPPP prior to submitting the application may result in permit revocation. [Minn. R. 7090] |
| 2.3 | This permit prohibits discharges of any material other than stormwater treated in compliance with this permit and discharges from dewatering or basin draining activities in accordance with Section 10. Prohibited discharges include, but are not limited to, wastewater from washout of concrete, stucco, paint, form release oils, curing compounds and other construction materials, fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance, soaps or solvents used in vehicle and equipment washing and maintenance, and other hazardous substances or wastes. [Minn. R. 7090] |
| 2.4 | This permit does not authorize stormwater discharges related to the placement of fill into waters of the state requiring local, state or federal authorizations (such as U.S. Army Corps of Engineers Section 404 permits, Minnesota Department of Natural Resources (DNR) Public Waters Work permits or local governmental unit (LGU) Wetland Conservation Act replacement plans or determinations). [Minn. R. 7090] |
| 2.5 | This permit does not authorize stormwater discharges associated with industrial activity except for construction activity. Permittees must obtain coverage for discharges associated with industrial activity under a separate NPDES/SDS permit once day-to-day operational activities commence even if construction is ongoing. [Minn. R. 7090] |
| 2.6 | This permit does not authorize discharges from non-point source agricultural and silvicultural activities excluded from NPDES permit requirements under 40 CFR pt. 122.3(e). [Minn. R. 7090] |
| 2.7 | This permit does not authorize stormwater discharges to Prohibited, Restricted, Special or Impaired waters unless permittees follow the additional stormwater requirements in Section 23. [Minn. R. 7090] |
| 2.8 | This permit does not replace or satisfy any environmental review requirements including those under the |

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| | Minnesota Environmental Policy Act or the National Environmental Policy Act. The owner must verify completion of any environmental review required by law, including any required Environmental Assessment Work Sheets or Environmental Impact Statements, Federal environmental review, or other required review prior to applying for coverage under this permit. If any part of your common plan of development or sale requires environmental review, coverage under this permit cannot be obtained until such environmental review is complete. [Minn. R. 7090] |
| 2.9 | This permit does not replace or satisfy any review requirements for discharges adversely impacting State or Federally designated endangered or threatened species or a designated critical habitat. The owner must comply with the National Historic Preservation Act and conduct all required review and coordination related to historic preservation, including significant anthropological sites and any burial sites, with the Minnesota Historic Preservation Officer. [Minn. R. 7090] |
| 2.10 | This permit does not authorize discharges to wetlands unless the permittee complies with the requirements in Section 22. [Minn. R. 7090] |
| 3.1 | **Application and Coverage Effective Date**. [Minn. R. 7090] |
| 3.2 | The owner and operator must submit a complete and accurate on-line application with the appropriate fee to the MPCA for each project that disturbs one (1) or more acres of land or for a common plan of development or sale that will ultimately disturb one (1) or more acres. [Minn. R. 7090] |
| 3.3 | For projects or common plans of development or sale that disturb less than 50 acres or do not discharge stormwater within 1 mile (aerial radius measurement) of a special or impaired water, permittees do not need to submit the SWPPP with the application. Permit coverage for these projects is effective upon application and completing the payment process. [Minn. R. 7090] |
| 3.4 | For certain projects or common plans of development or sale disturbing 50 acres or more, the complete SWPPP must be included with the application and submitted at least 30 days before the start of construction activity. This applies if there is a discharge point on the project within one mile (aerial radius measurement) of, and flows to, a special water listed in item 23.3 through 23.6 or an impaired water as described in item 23.7. Permit coverage for these projects is effective upon submitting the application and complete SWPPP, completing the payment process and receiving a determination from the MPCA that the review of the SWPPP is complete. The determination may take longer than 30 days if the SWPPP is incomplete. If the MPCA fails to contact the permittees within 30 days of application receipt, coverage is effective 30 days after completing the payment process. [Minn. R. 7090] |
| 3.5 | The application requires listing all persons meeting the definition of owner and operator as permittees. The owner is responsible for compliance with all terms and conditions of this permit. The operator is responsible for compliance with Sections 3, 4, 6-22, 24 and applicable requirements for construction activity in Section 23. [Minn. R. 7090] |
| 3.6 | Permittees will receive coverage notification in a manner determined by the MPCA. [Minn. R. 7090] |
| 3.7 | For construction projects where the owner or operator changes (e.g., an original developer sells portions of the property to various homebuilders or sells the entire site to a new owner), the current owner and the new owner or operator must submit a complete permit modification form provided by the MPCA. The current owner and the new owner or operator must submit the form prior to the new owner or operator commencing construction activity or no later than 30 days after taking ownership of the property. [Minn. R. 7090] |
| 3.8 | For construction projects where the owner or operator changes, the current owner must provide a SWPPP to the new owner and operator that specifically addresses the remaining construction activity. The new owner or operator can implement the original SWPPP, modify the SWPPP, or develop a new SWPPP. Permittees must ensure their activities do not render another party's erosion prevention and sediment control BMPs ineffective. [Minn. R. 7090] |
| 4.1 | **Termination of Coverage**. [Minn. R. 7090] |
| 4.2 | Permittees must submit a NOT within 30 days after all termination conditions listed in Section 13 are complete. [Minn. R. 7090] |
| 4.3 | Permittees must submit a NOT within 30 days after selling or otherwise legally transferring the entire site, including permit responsibility for roads (e.g., street sweeping) and stormwater infrastructure final clean out, or transferring portions of a site to another party. The permittees' coverage under this permit |

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| | terminates at midnight on the submission date of the NOT. [Minn. R. 7090] |
| 4.4 | Permittees may terminate permit coverage prior to completion of all construction activity if they meet all of the following conditions:<br><br>a. construction activity has ceased for at least 90 days; and<br>b. at least 90 percent (by area) of all originally proposed construction activity has been completed and permanent cover has been established on those areas; and<br>c. on areas where construction activity is not complete, permanent cover has been established; and<br>d. the site complies with item 13.3 through 13.7.<br><br>After permit coverage is terminated under this item, any subsequent development on the remaining portions of the site will require permit coverage if the subsequent development itself or as part of the remaining common plan of development or sale will result in land disturbing activities of one (1) or more acres in size. [Minn. R. 7090] |
| 4.5 | Permittees may terminate coverage upon MPCA approval after submitting information documenting the owner cancelled the project. [Minn. R. 7090] |
| 5.1 | **Stormwater Pollution Prevention Plan (SWPPP) Content**. [Minn. R. 7090] |
| 5.2 | The owner must develop a SWPPP. The SWPPP must include items 5.3 through 5.26. [Minn. R. 7090] |
| 5.3 | The SWPPP must incorporate specific Best Management Practices (BMP) used to comply with the requirements of this permit. [Minn. R. 7090] |
| 5.4 | The SWPPP must include a narrative describing the timing for installation of all erosion prevention and sediment control BMPs and a description of the permanent stormwater treatment systems. [Minn. R. 7090] |
| 5.5 | The SWPPP must include the location and type of all temporary and permanent erosion prevention and sediment control BMPs along with procedures used to establish additional temporary BMPs as necessary for the site conditions during construction. Standard details and/or specifications for BMPs must be included in the final plans and specifications for the project. [Minn. R. 7090] |
| 5.6 | The SWPPP must include the calculations and other information used for the design of temporary sediment basins and any of the permanent stormwater treatment systems required in Section 15. [Minn. R. 7090] |
| 5.7 | The SWPPP must include estimated quantities anticipated at the start of the project for the life of the project for all erosion prevention and sediment control BMPs (e.g., linear feet of silt fence or square feet of erosion control blanket). [Minn. R. 7090] |
| 5.8 | The SWPPP must include the number of acres of impervious surface for both pre- and post-construction. [Minn. R. 7090] |
| 5.9 | The SWPPP must include a site map with existing and final grades, including drainage area boundaries, directions of flow and all discharge points where stormwater is leaving the site or entering a surface water. The site map must indicate the areas of steep slopes. The site map must also include impervious surfaces, soil types and locations of potential pollutant-generating activities as identified in Section 12. [Minn. R. 7090] |
| 5.10 | The SWPPP must include a map of all surface waters, existing wetlands, and stormwater ponds or basins that can be identified on maps such as United States Geological Survey 7.5 minute quadrangle maps, the National Wetland Inventory map or equivalent maps and are within one mile (aerial radius measurement) from the project boundaries that will receive stormwater from the construction site, during or after construction. The SWPPP must identify if the surface waters are special or impaired waters. [Minn. R. 7090] |
| 5.11 | The SWPPP must include a site map showing construction activity areas that are adjacent to and drain to Public Waters for which the DNR has promulgated "work in water restrictions" during specified fish spawning time frames. [Minn. R. 7090] |
| 5.12 | Permittees must identify locations of 50' buffer zones as required in item 9.17 and 100' permanent buffer zones as required in item 23.11, on plan sheets in the SWPPP. [Minn. R. 7090] |
| 5.13 | If permittees determine compliance with the following requirements is infeasible, they must document the |

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| | determination in the SWPPP:<br><br>a. temporary sediment basins as described in Section 14; and<br>b. for linear projects, if the permanent stormwater treatment system cannot be constructed within the right-of-way, a reasonable attempt must be made to obtain additional right-of-way (item 15.9); and<br>c. buffer zones as described in item 9.17 and item 23.11. [Minn. R. 7090] |
| 5.14 | If permittees determine that a temporary sediment basin is infeasible as described in item 14.10, the SWPPP must describe the alternative BMPs used. [Minn. R. 7090] |
| 5.15 | Where systems cannot meet the full volume reduction requirement on site, (e.g., the site has infiltration prohibitions, see item 16.14 through item 16.21) the permittee must document the reasons in the SWPPP. [Minn. R. 7090] |
| 5.16 | The SWPPP must include any stormwater mitigation measures proposed to be part of the final project in any environmental review document, endangered species review, archeological or other required local, state or federal review conducted for the project. For purposes of this permit, mitigation measures means actions necessary to avoid, minimize, or mitigate for impacts related to erosion prevention, sediment control, the permanent stormwater treatment system, pollution prevention management measures and discharges associated with the project's construction activity. [Minn. R. 7090] |
| 5.17 | The SWPPP must describe the methods used for permanent cover of all exposed soil areas. [Minn. R. 7090] |
| 5.18 | Permittees must identify the locations of areas where construction will be phased to minimize the duration of exposed soil areas in the SWPPP. [Minn. R. 7090] |
| 5.19 | For projects with a discharge point on the project within one (1) mile (aerial radius measurement) of and which flows to an impaired water, permittees must identify the impaired water(s), and any United States Environmental Protection Agency (USEPA)-approved Total Maximum Daily Load (TMDL) for the pollutant(s) or stressor(s) described in item 23.7. Permittees' identification must include those TMDLs approved at any time prior to permit application submittal and are still in effect. [Minn. R. 7090] |
| 5.20 | Permittees must document in the SWPPP, all trained individuals identified in item 21.2. Documentation must include:<br><br>a. names of personnel required to be trained; and<br>b. dates of training and name of instructor(s) and entity providing training; and<br>c. content of training course.<br><br>If permittees do not know the names of the individuals at the time of application, the permittees must ensure they document training before construction activity commences. [Minn. R. 7090] |
| 5.21 | The SWPPP must identify a person knowledgeable and experienced in the application of erosion prevention and sediment control BMPs who will coordinate with all contractors, subcontractors, and operators on-site to oversee the implementation of the SWPPP. [Minn. R. 7090] |
| 5.22 | The SWPPP must describe any specific chemicals and chemical treatment systems used for enhancing the sedimentation process and how it achieves compliance with item 9.18. [Minn. R. 7090] |
| 5.23 | The SWPPP must identify the person(s), organizations, or entities responsible for long-term operation and maintenance of permanent stormwater treatment systems. [Minn. R. 7090] |
| 5.24 | The SWPPP must describe methods to minimize soil compaction and preserve topsoil. Minimizing soil compaction is not required where the function of a specific area dictates compaction. [Minn. R. 7090] |
| 5.25 | The SWPPP must include any site assessments for groundwater or soil contamination required in item 16.15. [Minn. R. 7090] |
| 5.26 | The SWPPP must account for the following factors in designing temporary erosion prevention and sediment control BMPs:<br><br>a. the expected amount, frequency, intensity, and duration of precipitation; and<br>b. the nature of stormwater runoff and run-on at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features; and<br>c. the stormwater volume, velocity, and peak flowrates to minimize discharge of pollutants in stormwater |

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| | and to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points; and<br>d. the range of soil particle sizes expected to be present. [Minn. R. 7090] |
| 6.1 | **SWPPP Amendments**. [Minn. R. 7090] |
| 6.2 | One of the individuals described in item 21.2.a or item 21.2.b or another qualified individual must complete all SWPPP changes. Changes involving the use of a less stringent BMP must include a justification describing how the replacement BMP is effective for the site characteristics. [Minn. R. 7090] |
| 6.3 | Permittees must amend the SWPPP to include additional or modified BMPs as necessary to correct problems identified or address situations whenever there is a change in design, construction, operation, maintenance, weather or seasonal conditions having a significant effect on the discharge of pollutants to surface waters or groundwater. [Minn. R. 7090] |
| 6.4 | Permittees must amend the SWPPP to include additional or modified BMPs as necessary to correct problems identified or address situations whenever inspections or investigations by the site owner or operator, USEPA or MPCA officials indicate the SWPPP is not effective in eliminating or significantly minimizing the discharge of pollutants to surface waters or groundwater or the discharges are causing water quality standard exceedances (e.g., nuisance conditions as defined in Minn. R. 7050.0210, subp. 2) or the SWPPP is not consistent with the objectives of a USEPA approved TMDL. [Minn. R. 7050.0210] |
| 7.1 | **BMP Selection and Installation**. [Minn. R. 7090] |
| 7.2 | Permittees must select, install, and maintain the BMPs identified in the SWPPP and in this permit in an appropriate and functional manner and in accordance with relevant manufacturer specifications and accepted engineering practices. [Minn. R. 7090] |
| 8.1 | **Erosion Prevention Practices**. [Minn. R. 7090] |
| 8.2 | Before work begins, permittees must delineate the location of areas not to be disturbed. [Minn. R. 7090] |
| 8.3 | Permittees must minimize the need for disturbance of portions of the project with steep slopes. When steep slopes must be disturbed, permittees must use techniques such as phasing and stabilization practices designed for steep slopes (e.g., slope draining and terracing). [Minn. R. 7090] |
| 8.4 | Permittees must stabilize all exposed soil areas, including stockpiles. Stabilization must be initiated immediately to limit soil erosion when construction activity has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization must be completed no later than 14 calendar days after the construction activity has ceased. Stabilization is not required on constructed base components of roads, parking lots and similar surfaces. Stabilization is not required on temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) but permittees must provide sediment controls at the base of the stockpile. [Minn. R. 7090] |
| 8.5 | For Public Waters that the Minnesota DNR has promulgated "work in water restrictions" during specified fish spawning time frames, permittees must complete stabilization of all exposed soil areas within 200 feet of the water's edge, and that drain to these waters, within 24 hours during the restriction period. [Minn. R. 7090] |
| 8.6 | Permittees must stabilize the normal wetted perimeter of the last 200 linear feet of temporary or permanent drainage ditches or swales that drain water from the site within 24 hours after connecting to a surface water or property edge. Permittees must complete stabilization of remaining portions of temporary or permanent ditches or swales within 14 calendar days after connecting to a surface water or property edge and construction in that portion of the ditch temporarily or permanently ceases. [Minn. R. 7090] |
| 8.7 | Temporary or permanent ditches or swales being used as a sediment containment system during construction (with properly designed rock-ditch checks, bio rolls, silt dikes, etc.) do not need to be stabilized. Permittees must stabilize these areas within 24 hours after their use as a sediment containment system ceases. [Minn. R. 7090] |
| 8.8 | Permittees must not use mulch, hydromulch, tackifier, polyacrylamide or similar erosion prevention practices within any portion of the normal wetted perimeter of a temporary or permanent drainage ditch or swale section with a continuous slope of greater than 2 percent. [Minn. R. 7090] |
| 8.9 | Permittees must provide temporary or permanent energy dissipation at all pipe outlets within 24 hours |

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| | after connection to a surface water or permanent stormwater treatment system. [Minn. R. 7090] |
| 8.10 | Permittees must not disturb more land (i.e., phasing) than can be effectively inspected and maintained in accordance with Section 11. [Minn. R. 7090] |
| 9.1 | **Sediment Control Practices**. [Minn. R. 7090] |
| 9.2 | Permittees must establish sediment control BMPs on all downgradient perimeters of the site and downgradient areas of the site that drain to any surface water, including curb and gutter systems. Permittees must locate sediment control practices upgradient of any buffer zones. Permittees must install sediment control practices before any upgradient land-disturbing activities begin and must keep the sediment control practices in place until they establish permanent cover. [Minn. R. 7090] |
| 9.3 | If downgradient sediment controls are overloaded, based on frequent failure or excessive maintenance requirements, permittees must install additional upgradient sediment control practices or redundant BMPs to eliminate the overloading and amend the SWPPP to identify these additional practices as required in item 6.3. [Minn. R. 7090] |
| 9.4 | Temporary or permanent drainage ditches and sediment basins designed as part of a sediment containment system (e.g., ditches with rock-check dams) require sediment control practices only as appropriate for site conditions. [Minn. R. 7090] |
| 9.5 | A floating silt curtain placed in the water is not a sediment control BMP to satisfy item 9.2 except when working on a shoreline or below the waterline. Immediately after the short term construction activity (e.g., installation of rip rap along the shoreline) in that area is complete, permittees must install an upland perimeter control practice if exposed soils still drain to a surface water. [Minn. R. 7090] |
| 9.6 | Permittees must re-install all sediment control practices adjusted or removed to accommodate short-term activities such as clearing or grubbing, or passage of vehicles, immediately after the short-term activity is completed. Permittees must re-install sediment control practices before the next precipitation event even if the short-term activity is not complete. [Minn. R. 7090] |
| 9.7 | Permittees must protect all storm drain inlets using appropriate BMPs during construction until they establish permanent cover on all areas with potential for discharging to the inlet. [Minn. R. 7090] |
| 9.8 | Permittees may remove inlet protection for a particular inlet if a specific safety concern (e.g. street flooding/freezing) is identified by the permittees or the jurisdictional authority (e.g., city/county/township/Minnesota Department of Transportation engineer). Permittees must document the need for removal in the SWPPP. [Minn. R. 7090] |
| 9.9 | Permittees must provide silt fence or other effective sediment controls at the base of stockpiles on the downgradient perimeter. [Minn. R. 7090] |
| 9.10 | Permittees must locate stockpiles outside of natural buffers or surface waters, including stormwater conveyances such as curb and gutter systems unless there is a bypass in place for the stormwater. [Minn. R. 7090] |
| 9.11 | Permittees must install a vehicle tracking BMP to minimize the track out of sediment from the construction site or onto paved roads within the site. [Minn. R. 7090] |
| 9.12 | Permittees must use street sweeping if vehicle tracking BMPs are not adequate to prevent sediment tracking onto the street. [Minn. R. 7090] |
| 9.13 | Permittees must install temporary sediment basins as required in Section 14. [Minn. R. 7090] |
| 9.14 | In any areas of the site where final vegetative stabilization will occur, permittees must restrict vehicle and equipment use to minimize soil compaction. [Minn. R. 7090] |
| 9.15 | Permittees must preserve topsoil on the site, unless infeasible. [Minn. R. 7090] |
| 9.16 | Permittees must direct discharges from BMPs to vegetated areas unless infeasible. [Minn. R. 7090] |
| 9.17 | Permittees must preserve a 50 foot natural buffer or, if a buffer is infeasible on the site, provide redundant (double) perimeter sediment controls when a surface water is located within 50 feet of the project's earth disturbances and stormwater flows to the surface water. Permittees must install perimeter sediment controls at least 5 feet apart unless limited by lack of available space. Natural buffers are not required adjacent to road ditches, judicial ditches, county ditches, stormwater conveyance channels, storm drain inlets, and sediment basins. If preserving the buffer is infeasible, permittees must document the reasons in the SWPPP. Sheet piling is a redundant perimeter control if installed in a manner that retains all |

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| | stormwater. [Minn. R. 7090] |
| 9.18 | Permittees must use polymers, flocculants, or other sedimentation treatment chemicals in accordance with accepted engineering practices, dosing specifications and sediment removal design specifications provided by the manufacturer or supplier. The permittees must use conventional erosion and sediment controls prior to chemical addition and must direct treated stormwater to a sediment control system for filtration or settlement of the floc prior to discharge. [Minn. R. 7090] |
| 10.1 | **Dewatering and Basin Draining**. [Minn. R. 7090] |
| 10.2 | Permittees must discharge turbid or sediment-laden waters related to dewatering or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) to a temporary or permanent sediment basin on the project site unless infeasible. Permittees may dewater to surface waters if they visually check to ensure adequate treatment has been obtained and nuisance conditions (see Minn. R. 7050.0210, subp. 2) will not result from the discharge. If permittees cannot discharge the water to a sedimentation basin prior to entering a surface water, permittees must treat it with appropriate BMPs such that the discharge does not adversely affect the surface water or downstream properties. [Minn. R. 7050.0210] |
| 10.3 | If permittees must discharge water containing oil or grease, they must use an oil-water separator or suitable filtration device (e.g., cartridge filters, absorbents pads) prior to discharge. [Minn. R. 7090] |
| 10.4 | Permittees must discharge all water from dewatering or basin-draining activities in a manner that does not cause erosion or scour in the immediate vicinity of discharge points or inundation of wetlands in the immediate vicinity of discharge points that causes significant adverse impact to the wetland. [Minn. R. 7090] |
| 10.5 | If permittees use filters with backwash water, they must haul the backwash water away for disposal, return the backwash water to the beginning of the treatment process, or incorporate the backwash water into the site in a manner that does not cause erosion. [Minn. R. 7090] |
| 11.1 | **Inspections and Maintenance**. [Minn. R. 7090] |
| 11.2 | Permittees must ensure a trained person, as identified in item 21.2.b, will inspect the entire construction site at least once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 1/2 inch in 24 hours. [Minn. R. 7090] |
| 11.3 | Permittees must inspect and maintain all permanent stormwater treatment BMPs. [Minn. R. 7090] |
| 11.4 | Permittees must inspect all erosion prevention and sediment control BMPs and Pollution Prevention Management Measures to ensure integrity and effectiveness. Permittees must repair, replace or supplement all nonfunctional BMPs with functional BMPs by the end of the next business day after discovery unless another time frame is specified in item 11.5 or 11.6. Permittees may take additional time if field conditions prevent access to the area. [Minn. R. 7090] |
| 11.5 | During each inspection, permittees must inspect surface waters, including drainage ditches and conveyance systems but not curb and gutter systems, for evidence of erosion and sediment deposition. Permittees must remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems and restabilize the areas where sediment removal results in exposed soil. Permittees must complete removal and stabilization within seven (7) calendar days of discovery unless precluded by legal, regulatory, or physical access constraints. Permittees must use all reasonable efforts to obtain access. If precluded, removal and stabilization must take place within seven (7) days of obtaining access. Permittees are responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work in surface waters. [Minn. R. 7090] |
| 11.6 | Permittees must inspect construction site vehicle exit locations, streets and curb and gutter systems within and adjacent to the project for sedimentation from erosion or tracked sediment from vehicles. Permittees must remove sediment from all paved surfaces within one (1) calendar day of discovery or, if applicable, within a shorter time to avoid a safety hazard to users of public streets. [Minn. R. 7090] |
| 11.7 | Permittees must repair, replace or supplement all perimeter control devices when they become nonfunctional or the sediment reaches 1/2 of the height of the device. [Minn. R. 7090] |
| 11.8 | Permittees must drain temporary and permanent sedimentation basins and remove the sediment when the depth of sediment collected in the basin reaches 1/2 the storage volume. [Minn. R. 7090] |
| 11.9 | Permittees must ensure that at least one individual present on the site (or available to the project site in |

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| | three (3) calendar days) is trained in the job duties described in item 21.2.b. [Minn. R. 7090] |
| 11.10 | Permittees may adjust the inspection schedule described in item 11.2 as follows:<br><br>a. inspections of areas with permanent cover can be reduced to once per month, even if construction activity continues on other portions of the site; or<br>b. where sites have permanent cover on all exposed soil and no construction activity is occurring anywhere on the site, inspections can be reduced to once per month and, after 12 months, may be suspended completely until construction activity resumes. The MPCA may require inspections to resume if conditions warrant; or<br>c. where construction activity has been suspended due to frozen ground conditions, inspections may be suspended. Inspections must resume within 24 hours of runoff occurring, or upon resuming construction, whichever comes first. [Minn. R. 7090] |
| 11.11 | Permittees must record all inspections and maintenance activities within 24 hours of being conducted and these records must be retained with the SWPPP. These records must include:<br><br>a. date and time of inspections; and<br>b. name of persons conducting inspections; and<br>c. accurate findings of inspections, including the specific location where corrective actions are needed; and<br>d. corrective actions taken (including dates, times, and party completing maintenance activities); and<br>e. date of all rainfall events greater than 1/2 inches in 24 hours, and the amount of rainfall for each event. Permittees must obtain rainfall amounts by either a properly maintained rain gauge installed onsite, a weather station that is within one (1) mile of your location, or a weather reporting system that provides site specific rainfall data from radar summaries; and<br>f. if permittees observe a discharge during the inspection, they must record and should photograph and describe the location of the discharge (i.e., color, odor, settled or suspended solids, oil sheen, and other obvious indicators of pollutants); and<br>g. any amendments to the SWPPP proposed as a result of the inspection must be documented as required in Section 6 within seven (7) calendar days. [Minn. R. 7090] |
| 12.1 | **Pollution Prevention Management Measures**. [Minn. R. 7090] |
| 12.2 | Permittees must place building products and landscape materials under cover (e.g., plastic sheeting or temporary roofs) or protect them by similarly effective means designed to minimize contact with stormwater. Permittees are not required to cover or protect products which are either not a source of contamination to stormwater or are designed to be exposed to stormwater. [Minn. R. 7090] |
| 12.3 | Permittees must place pesticides, fertilizers and treatment chemicals under cover (e.g., plastic sheeting or temporary roofs) or protect them by similarly effective means designed to minimize contact with stormwater. [Minn. R. 7090] |
| 12.4 | Permittees must store hazardous materials and toxic waste, (including oil, diesel fuel, gasoline, hydraulic fluids, paint solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids) in sealed containers to prevent spills, leaks or other discharge. Storage and disposal of hazardous waste materials must be in compliance with Minn. R. ch. 7045 including secondary containment as applicable. [Minn. R. 7090] |
| 12.5 | Permittees must properly store, collect and dispose solid waste in compliance with Minn. R. ch. 7035. [Minn. R. 7035] |
| 12.6 | Permittees must position portable toilets so they are secure and will not tip or be knocked over. Permittees must properly dispose sanitary waste in accordance with Minn. R. ch. 7041. [Minn. R. 7041] |
| 12.7 | Permittees must take reasonable steps to prevent the discharge of spilled or leaked chemicals, including fuel, from any area where chemicals or fuel will be loaded or unloaded including the use of drip pans or absorbents unless infeasible. Permittees must ensure adequate supplies are available at all times to clean up discharged materials and that an appropriate disposal method is available for recovered spilled materials. Permittees must report and clean up spills immediately as required by Minn. Stat. 115.061, using dry clean up measures where possible. [Minn. Stat. 115.061] |
| 12.8 | Permittees must limit vehicle exterior washing and equipment to a defined area of the site. Permittees must contain runoff from the washing area in a sediment basin or other similarly effective controls and |

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| | must dispose waste from the washing activity properly. Permittees must properly use and store soaps, detergents, or solvents. [Minn. R. 7090] |
| 12.9 | Permittees must provide effective 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) related to the construction activity. Permittees must prevent liquid and solid washout wastes from contacting the ground and must design the containment so it does not result in runoff from the washout operations or areas. Permittees must properly dispose liquid and solid wastes in compliance with MPCA rules. Permittees must install a sign indicating the location of the washout facility. [Minn. R. 7035, Minn. R. 7090] |
| 13.1 | **Permit Termination Conditions**. [Minn. R. 7090] |
| 13.2 | Permittees must complete all construction activity and must install permanent cover over all areas prior to submitting the NOT. Vegetative cover must consist of a uniform perennial vegetation with a density of 70 percent of its expected final growth. Vegetation is not required where the function of a specific area dictates no vegetation, such as impervious surfaces or the base of a sand filter. [Minn. R. 7090] |
| 13.3 | Permittees must clean the permanent stormwater treatment system of any accumulated sediment and must ensure the system meets all applicable requirements in Section 15 through 19 and is operating as designed. [Minn. R. 7090] |
| 13.4 | Permittees must remove all sediment from conveyance systems prior to submitting the NOT. [Minn. R. 7090] |
| 13.5 | Permittees must remove all temporary synthetic erosion prevention and sediment control BMPs prior to submitting the NOT. Permittees may leave BMPs designed to decompose on-site in place. [Minn. R. 7090] |
| 13.6 | For residential construction only, permit coverage terminates on individual lots if the structures are finished and temporary erosion prevention and downgradient perimeter control is complete, the residence sells to the homeowner, and the permittee distributes the MPCA's "Homeowner Fact Sheet" to the homeowner. [Minn. R. 7090] |
| 13.7 | For construction projects on agricultural land (e.g., pipelines across cropland), permittees must return the disturbed land to its preconstruction agricultural use prior to submitting the NOT. [Minn. R. 7090] |
| 14.1 | **Temporary Sediment Basins**. [Minn. R. 7090] |
| 14.2 | Where ten (10) or more acres of disturbed soil drain to a common location, permittees must provide a temporary sediment basin to provide treatment of the runoff before it leaves the construction site or enters surface waters. Permittees may convert a temporary sediment basin to a permanent basin after construction is complete. The temporary basin is no longer required when permanent cover has reduced the acreage of disturbed soil to less than ten (10) acres draining to a common location. [Minn. R. 7090] |
| 14.3 | The temporary basin must provide live storage for a calculated volume of runoff from a two (2)-year, 24-hour storm from each acre drained to the basin or 1,800 cubic feet of live storage per acre drained, whichever is greater. [Minn. R. 7090] |
| 14.4 | Where permittees have not calculated the two (2)-year, 24-hour storm runoff amount, the temporary basin must provide 3,600 cubic feet of live storage per acre of the basins' drainage area. [Minn. R. 7090] |
| 14.5 | Permittees must design basin outlets to prevent short-circuiting and the discharge of floating debris. [Minn. R. 7090] |
| 14.6 | Permittees must design the outlet structure to withdraw water from the surface to minimize the discharge of pollutants. Permittees may temporarily suspend the use of a surface withdrawal mechanism during frozen conditions. The basin must include a stabilized emergency overflow to prevent failure of pond integrity. [Minn. R. 7090] |
| 14.7 | Permittees must provide energy dissipation for the basin outlet within 24 hours after connection to a surface water. [Minn. R. 7090] |
| 14.8 | Permittees must locate temporary basins outside of surface waters and any buffer zone required in item 23.11. [Minn. R. 7090] |
| 14.9 | Permittees must construct the temporary basins prior to disturbing 10 or more acres of soil draining to a common location. [Minn. R. 7090] |
| 14.10 | Where a temporary sediment basin meeting the requirements of item 14.3 through 14.9 is infeasible, |

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| | permittees must install effective sediment controls such as smaller sediment basins and/or sediment traps, silt fences, vegetative buffer strips or any appropriate combination of measures as dictated by individual site conditions. In determining whether installing a sediment basin is infeasible, permittees must consider public safety and may consider factors such as site soils, slope, and available area on-site. Permittees must document this determination of infeasibility in the SWPPP. [Minn. R. 7090] |
| 15.1 | **Permanent Stormwater Treatment System**. [Minn. R. 7090] |
| 15.2 | Permittees must design the project so all stormwater discharged from the project during and after construction activities does not cause a violation of state water quality standards, including nuisance conditions, erosion in receiving channels or on downslope properties, or a significant adverse impact to wetlands caused by inundation or decrease of flow. [Minn. R. 7090] |
| 15.3 | Permittees must design and construct a permanent stormwater treatment system to treat the water quality volume if the project's ultimate development replaces vegetation and/or other pervious surfaces creating a net increase of one (1) or more acres of cumulative impervious surface. [Minn. R. 7090] |
| 15.4 | Permittees must calculate the water quality volume as one (1) inch times the net increase of impervious surfaces created by the project. [Minn. R. 7090] |
| 15.5 | Permittees must first consider volume reduction practices on-site (e.g., infiltration or other) when designing the permanent stormwater treatment system. If this permit prohibits infiltration as described in item 16.14 through item 16.21, permittees may consider a wet sedimentation basin, filtration basin or regional pond. This permit does not consider wet sedimentation basins and filtration systems to be volume reduction practices. [Minn. R. 7090] |
| 15.6 | For projects where the full volume reduction requirement cannot be met on-site, (e.g., the site has infiltration prohibitions), permittees must document the reasons in the SWPPP. [Minn. R. 7090] |
| 15.7 | Permittees must discharge the water quality volume to a permanent stormwater treatment system prior to discharge to a surface water. For purposes of this item, surface waters do not include man-made drainage systems that convey stormwater to a permanent stormwater treatment system. [Minn. R. 7090] |
| 15.8 | Where the proximity to bedrock precludes the installation of any of the permanent stormwater treatment practices required by Sections 15 through 19, permittees must install other treatment such as grassed swales, smaller ponds, or grit chambers, prior to the discharge of stormwater to surface waters. [Minn. R. 7090] |
| 15.9 | For linear projects where permittees cannot treat the entire water quality volume within the existing right-of-way, permittees must make a reasonable attempt to obtain additional right-of-way, easement or other permission for stormwater treatment during the project planning process. Documentation of these attempts must be in the SWPPP. Permittees must still consider volume reduction practices first as described in item 15.5. If permittees cannot obtain additional right-of-way, easement or other permission, they must maximize the treatment of the water quality volume prior to discharge to surface waters. [Minn. R. 7090] |
| 16.1 | **Infiltration Systems**. [Minn. R. 7090] |
| 16.2 | Infiltration options include, but are not limited to: infiltration basins, infiltration trenches, rainwater gardens, bioretention areas without underdrains, swales with impermeable check dams, and natural depressions. If permittees utilize an infiltration system to meet the requirements of this permit, they must incorporate the design parameters in item 16.3 through item 16.21. Permittees must follow the infiltration prohibition in item 16.14 anytime an infiltration system is designed, including those not required by this permit. [Minn. R. 7090] |
| 16.3 | Permittees must design infiltration systems such that pre-existing hydrologic conditions of wetlands in the vicinity are not impacted (e.g., inundation or breaching a perched water table supporting a wetland). [Minn. R. 7090] |
| 16.4 | Permittees must not excavate infiltration systems to final grade, or within three (3) feet of final grade, until the contributing drainage area has been constructed and fully stabilized unless they provide rigorous erosion prevention and sediment controls (e.g., diversion berms) to keep sediment and runoff completely away from the infiltration area. [Minn. R. 7090] |
| 16.5 | When excavating an infiltration system to within three (3) feet of final grade, permittees must stake off and mark the area so heavy construction vehicles or equipment do not compact the soil in the infiltration |

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| | area. [Minn. R. 7090] |
| 16.6 | Permittees must use a pretreatment device such as a vegetated filter strip, forebay, or water quality inlet (e.g., grit chamber) to remove solids, floating materials, and oil and grease from the runoff, to the maximum extent practicable, before the system routes stormwater to the infiltration system. [Minn. R. 7090] |
| 16.7 | Permittees must design infiltration systems to provide a water quality volume (calculated as an instantaneous volume) of one (1) inch of runoff, or one (1) inch minus the volume of stormwater treated by another system on the site, from the net increase of impervious surfaces created by the project. [Minn. R. 7090] |
| 16.8 | Permittees must design the infiltration system to discharge all stormwater (including stormwater in excess of the water quality volume) routed to the system through the uppermost soil surface or engineered media surface within 48 hours. Permittees must route additional flows that cannot infiltrate within 48 hours to bypass the system through a stabilized discharge point. [Minn. R. 7090] |
| 16.9 | Permittees must provide a means to visually verify the infiltration system is discharging through the soil surface or filter media surface within 48 hours or less. [Minn. R. 7090] |
| 16.10 | Permittees must provide at least one soil boring, test pit or infiltrometer test in the location of the infiltration practice for determining infiltration rates. [Minn. R. 7090] |
| 16.11 | For design purposes, permittees must divide field measured infiltration rates by 2 as a safety factor or permittees can use soil-boring results with the infiltration rate chart in the Minnesota Stormwater Manual to determine design infiltration rates. When soil borings indicate type A soils, permittees should perform field measurements to verify the rate is not above 8.3 inches per hour. This permit prohibits infiltration if the field measured infiltration rate is above 8.3 inches per hour. [Minn. R. 7090] |
| 16.12 | Permittees must employ appropriate on-site testing ensure a minimum of three (3) feet of separation from the seasonally saturated soils (or from bedrock) and the bottom of the proposed infiltration system. [Minn. R. 7090] |
| 16.13 | Permittees must design a maintenance access, typically eight (8) feet wide, for the infiltration system. [Minn. R. 7090] |
| 16.14 | This permit prohibits permittees from constructing infiltration systems that receive runoff from vehicle fueling and maintenance areas including construction of infiltration systems not required by this permit. [Minn. R. 7090] |
| 16.15 | This permit prohibits permittees from constructing infiltration systems where infiltrating stormwater may mobilize high levels of contaminants in soil or groundwater. Permittees must either complete the MPCA's contamination screening checklist or conduct their own assessment to determine the suitability for infiltration. Permittees must retain the checklist or assessment with the SWPPP.<br><br>For more information and to access the MPCA's "contamination screening checklist" see the Minnesota Stormwater Manual. [Minn. R. 7090] |
| 16.16 | This permit prohibits permittees from constructing infiltration systems in areas where soil infiltration rates are field measured at more than 8.3 inches per hour unless they amend soils to slow the infiltration rate below 8.3 inches per hour. [Minn. R. 7090] |
| 16.17 | This permit prohibits permittees from constructing infiltration systems in areas with less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock. [Minn. R. 7090] |
| 16.18 | This permit prohibits permittees from constructing infiltration systems in areas of predominately Hydrologic Soil Group type D soils (clay). [Minn. R. 7090] |
| 16.19 | This permit prohibits permittees from constructing infiltration systems within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13, if the system will be located:<br><br>a. in an Emergency Response Area (ERA) within a DWSMA classified as having high or very high vulnerability as defined by the Minnesota Department of Health; or<br>b. in an ERA within a DWSMA classified as moderate vulnerability unless a regulated MS4 Permittee performed or approved a higher level of engineering review sufficient to provide a functioning treatment |

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| | system and to prevent adverse impacts to groundwater; or<br>c. outside of an ERA within a DWSMA classified as having high or very high vulnerability, unless a regulated MS4 Permittee performed or approved a higher level of engineering review sufficient to provide a functioning treatment system and to prevent adverse impacts to groundwater.<br><br>See "higher level of engineering review" in the Minnesota Stormwater Manual for more information. [Minn. R. 7090] |
| 16.20 | This permit prohibits permittees from constructing infiltration systems in areas within 1,000 feet upgradient or 100 feet downgradient of active karst features. [Minn. R. 7090] |
| 16.21 | This permit prohibits permittees from constructing infiltration systems in areas that receive runoff from the following industrial facilities not authorized to infiltrate stormwater under the NPDES stormwater permit for industrial activities: automobile salvage yards; scrap recycling and waste recycling facilities; hazardous waste treatment, storage, or disposal facilities; or air transportation facilities that conduct deicing activities. [Minn. R. 7090] |
| 17.1 | **Filtration Systems**. [Minn. R. 7090] |
| 17.2 | Filtration options include, but are not limited to: sand filters with underdrains, biofiltration areas, swales using underdrains with impermeable check dams and underground sand filters. If permittees utilize a filtration system to meet the permanent stormwater treatment requirements of this permit, they must comply with items 17.3 through 17.11. [Minn. R. 7090] |
| 17.3 | Permittees must not install filter media until they construct and fully stabilize the contributing drainage area unless they provide rigorous erosion prevention and sediment controls (e.g., diversion berms) to keep sediment and runoff completely away from the filtration area. [Minn. R. 7090] |
| 17.4 | Permittees must design filtration systems to remove at least 80 percent of TSS. [Minn. R. 7090] |
| 17.5 | Permittees must use a pretreatment device such as a vegetated filter strip, small sedimentation basin, water quality inlet, forebay or hydrodynamic separator to remove settleable solids, floating materials, and oils and grease from the runoff, to the maximum extent practicable, before runoff enters the filtration system. [Minn. R. 7090] |
| 17.6 | Permittees must design filtration systems to treat a water quality volume (calculated as an instantaneous volume) of one (1) inch of runoff, or one (1) inch minus the volume of stormwater treated by another system on the site, from the net increase of impervious surfaces created by the project. [Minn. R. 7090] |
| 17.7 | Permittees must design the filtration system to discharge all stormwater (including stormwater in excess of the water quality volume) routed to the system through the uppermost soil surface or engineered media surface within 48 hours. Additional flows that the system cannot filter within 48 hours must bypass the system or discharge through an emergency overflow. [Minn. R. 7090] |
| 17.8 | Permittees must design the filtration system to provide a means to visually verify the system is discharging through the soil surface or filter media within 48 hours. [Minn. R. 7090] |
| 17.9 | Permittees must employ appropriate on-site testing to ensure a minimum of three (3) feet of separation between the seasonally saturated soils (or from bedrock) and the bottom of the proposed filtration system. [Minn. R. 7090] |
| 17.10 | Permittees must ensure that filtration systems with less than three (3) feet of separation between seasonally saturated soils or from bedrock are constructed with an impermeable liner. [Minn. R. 7090] |
| 17.11 | The permittees must design a maintenance access, typically eight (8) feet wide, for the filtration system. [Minn. R. 7090] |
| 18.1 | **Wet Sedimentation Basin**. [Minn. R. 7090] |
| 18.2 | Permittees using a wet sedimentation basin to meet the permanent stormwater treatment requirements of this permit must incorporate the design parameters in item 18.3 through 18.10. [Minn. R. 7090] |
| 18.3 | Permittees must design the basin to have a permanent volume of 1,800 cubic feet of storage below the outlet pipe for each acre that drains to the basin. The basin's permanent volume must reach a minimum depth of at least three (3) feet and must have no depth greater than 10 feet. Permittees must configure the basin to minimize scour or resuspension of solids. [Minn. R. 7090] |
| 18.4 | Permittees must design the basin to provide live storage for a water quality volume (calculated as an |

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| | instantaneous volume) of one (1) inch of runoff, or one (1) inch minus the volume of stormwater treated by another system on the site, from the net increase in impervious surfaces created by the project. [Minn. R. 7090] |
| 18.5 | Permittees must design basin outlets so the water quality volume discharges at no more than 5.66 cubic feet per second (cfs) per acre of surface area of the basin. [Minn. R. 7090] |
| 18.6 | Permittees must design basin outlets to prevent short-circuiting and the discharge of floating debris. Basin outlets must have energy dissipation. [Minn. R. 7090] |
| 18.7 | Permittees must design the basin to include a stabilized emergency overflow to accommodate storm events in excess of the basin's hydraulic design. [Minn. R. 7090] |
| 18.8 | Permittees must design a maintenance access, typically eight (8) feet wide, for the basin. [Minn. R. 7090] |
| 18.9 | Permittees must locate basins outside of surface waters and any buffer zone required in item 23.11. Permittees must design basins to avoid draining water from wetlands unless the impact to the wetland complies with the requirements of Section 22. [Minn. R. 7090] |
| 18.10 | Permittees must design basins using an impermeable liner if located within active karst terrain. [Minn. R. 7090] |
| 19.1 | **Regional Wet Sedimentation Basins**. [Minn. R. 7090] |
| 19.2 | When the entire water quality volume cannot be retained onsite, permittees can use or create regional wet sedimentation basins provided they are constructed basins, not a natural wetland or water body, (wetlands used as regional basins must be mitigated for, see Section 22). The owner must ensure the regional basin conforms to all requirements for a wet sedimentation basin as described in items 18.3 through 18.10 and must be large enough to account for the entire area that drains to the regional basin. Permittees must verify that the regional basin will discharge at no more than 5.66 cfs per acre of surface area of the basin and must provide a live storage volume of one inch times all the impervious area draining to the basin. Permittees cannot significantly degrade waterways between the project and the regional basin. The owner must obtain written authorization from the applicable LGU or private entity that owns and maintains the regional basin. [Minn. R. 7090] |
| 20.1 | **SWPPP Availability**. [Minn. R. 7090] |
| 20.2 | Permittees must keep the SWPPP, including all changes to it, and inspections and maintenance records at the site during normal working hours by permittees who have operational control of that portion of the site. [Minn. R. 7090] |
| 21.1 | **Training Requirements**. [Minn. R. 7090] |
| 21.2 | Permittees must ensure all of the following individuals receive training and the content and extent of the training is commensurate with the individual's job duties and responsibilities with regard to activities covered under this permit:<br><br>a. Individuals preparing the SWPPP for the project.<br>b. Individuals overseeing implementation of, revising and/or amending the SWPPP and individuals performing inspections for the project. One of these individuals must be available for an onsite inspection within 72 hours upon request by the MPCA.<br>c. Individuals performing or supervising the installation, maintenance and repair of BMPs. [Minn. R. 7090] |
| 21.3 | Permittees must ensure individuals identified in Section 21 receive training from local, state, federal agencies, professional organizations, or other entities with expertise in erosion prevention, sediment control, permanent stormwater treatment and the Minnesota NPDES/SDS Construction Stormwater permit. Permittees must ensure these individuals attend a refresher-training course every three (3) years. [Minn. R. 7090] |
| 22.1 | **Requirements for Discharges to Wetlands**. [Minn. R. 7050.0186] |
| 22.2 | If the project has any discharges with the potential for significant adverse impacts to a wetland, (e.g., conversion of a natural wetland to a stormwater pond) permittees must demonstrate that the wetland mitigative sequence has been followed in accordance with items 22.3 or 22.4. [Minn. R. 7050.0186] |
| 22.3 | If the potential adverse impacts to a wetland on a specific project site are addressed by permits or other approvals from an official statewide program (U.S. Army Corps of Engineers 404 program, Minnesota |

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| | Department of Natural Resources, or the State of Minnesota Wetland Conservation Act) that are issued specifically for the project and project site, permittees may use the permit or other determination issued by these agencies to show the potential adverse impacts are addressed. For purposes of this permit, deminimus actions are determinations by the permitting agency that address the project impacts, whereas a non-jurisdictional determination does not address project impacts. [Minn. R. 7090] |
| 22.4 | If there are impacts from the project not addressed in one of the permits or other determinations discussed in item 22.3 (e.g., permanent inundation or flooding of the wetland, significant degradation of water quality, excavation, filling, draining), permittees must minimize all adverse impacts to wetlands by utilizing appropriate measures. Permittees must use measures based on the nature of the wetland, its vegetative community types and the established hydrology. These measures include in order of preference:<br><br>a. avoid all significant adverse impacts to wetlands from the project and post-project discharge;<br>b. minimize any unavoidable impacts from the project and post-project discharge;<br>c. provide compensatory mitigation when the permittees determine(s) that there is no reasonable and practicable alternative to having a significant adverse impact on a wetland. For compensatory mitigation, wetland restoration or creation must be of the same type, size and whenever reasonable and practicable in the same watershed as the impacted wetland. [Minn. R. 7050.0186] |
| 23.1 | **Additional Requirements for Discharges to Special (Prohibited, Restricted, Other) and Impaired Waters**. [Minn. R. 7090] |
| 23.2 | The BMPs identified for each special or impaired water are required for those areas of the project draining to a discharge point on the project that is within one mile (aerial radius measurement) of special or impaired water and flows to that special or impaired water. [Minn. R. 7090] |
| 23.3 | Discharges to the following special waters identified as Prohibited in Minn. R. 7050.0035 Subp. 3 must incorporate the BMPs outlined in items 23.9, 23.10, 23.11, 23.13 and 23.14:<br><br>a. Boundary Waters Canoe Area Wilderness; Voyageurs National Park; Kettle River from the site of the former dam at Sandstone to its confluence with the Saint Croix River; Rum River from Ogechie Lake spillway to the northernmost confluence with Lake Onamia.<br>b. Those portions of Lake Superior North of latitude 47 degrees, 57 minutes, 13 seconds, East of Hat Point, South of the Minnesota-Ontario boundary, and West of the Minnesota-Michigan boundary;<br>c. Scientific and Natural Areas identified as in Minn. R. 7050.0335 Subp. 3: Boot Lake, Anoka County; Kettle River in sections 15, 22, 23, T 41 N, R 20, Pine County; Pennington Bog, Beltrami County; Purvis Lake-Ober Foundation, Saint Louis County; waters within the borders of Itasca Wilderness Sanctuary, Clearwater County; Wolsfeld Woods, Hennepin County; Green Water Lake, Becker County; Blackdog Preserve, Dakota County; Prairie Bush Clover, Jackson County; Black Lake Bog, Pine County; Pembina Trail Preserve, Polk County; and Falls Creek, Washington County. [Minn. R. 7050.0335, Subp. 3] |
| 23.4 | Discharges to the following special waters identified as Restricted must incorporate the BMPs outlined in items 23.9, 23.10 and 23.11:<br><br>a. Lake Superior, except those portions identified as prohibited in item 23.3.b;<br>b. Mississippi River in those portions from Lake Itasca to the southerly boundary of Morrison County that are included in the Mississippi Headwaters Board comprehensive plan dated February 12, 1981;<br>c. Scenic or Recreational River Segments: Saint Croix River, entire length; Cannon River from northern city limits of Faribault to its confluence with the Mississippi River; North Fork of the Crow River from Lake Koronis outlet to the Meeker-Wright county line; Kettle River from north Pine County line to the site of the former dam at Sandstone; Minnesota River from Lac que Parle dam to Redwood County State Aid Highway 11; Mississippi River from County State Aid Highway 7 bridge in Saint Cloud to northwestern city limits of Anoka; and Rum River from State Highway 27 bridge in Onamia to Madison and Rice streets in Anoka;<br>d. Lake Trout Lakes identified in Minn. R. 7050.0335 including lake trout lakes inside the boundaries of the Boundary Waters Canoe Area Wilderness and Voyageurs National Park;<br>e. Calcareous Fens listed in Minn. R. 7050.0335, Subp. 1. [Minn. R. 7050.0335, Subp. 1] |
| 23.5 | Discharges to the Trout Lakes (other special water) identified in Minn. R. 6264.0050, subp. 2 must incorporate the BMPs outlined in items 23.9, 23.10 and 23.11. [Minn. R. 6264.0050, Subp. 2] |

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| 23.6 | Discharges to the Trout Streams (other special water) listed in Minn. R. 6264.0050, subp. 4 must incorporate the BMPs outlined in items 23.9, 23.10, 23.11 and 23.12. [Minn. R. 6264.0050, Subp. 4] |
| 23.7 | Discharges to impaired waters or a water with an USEPA approved TMDL for any of the impairments listed in this item must incorporate the BMPs outlined in items 23.9 and 23.10. Impaired waters are waters identified as impaired under section 303 (d) of the federal Clean Water Act for phosphorus (nutrient eutrophication biological indicators), turbidity, TSS, dissolved oxygen or aquatic biota (fish bioassessment, aquatic plant bioassessment and aquatic macroinvertebrate bioassessment). Terms used for the pollutants or stressors in this item are subject to change. The MPCA will list terminology changes on its construction stormwater website. [Minn. R. 7090] |
| 23.8 | Where the additional BMPs in this Section conflict with requirements elsewhere in this permit, items 23.9 through 23.14 take precedence. [Minn. R. 7090] |
| 23.9 | Permittees must immediately initiate stabilization of exposed soil areas, as described in item 8.4, and complete the stabilization within seven (7) calendar days after the construction activity in that portion of the site temporarily or permanently ceases. [Minn. R. 7090] |
| 23.10 | Permittees must provide a temporary sediment basin as described in Section 14 for common drainage locations that serve an area with five (5) or more acres disturbed at one time. [Minn. R. 7090] |
| 23.11 | Permittees must include an undisturbed buffer zone of not less than 100 linear feet from a special water (not including tributaries) and must maintain this buffer zone at all times, both during construction and as a permanent feature post construction, except where a water crossing or other encroachment is necessary to complete the project. Permittees must fully document the circumstance and reasons the buffer encroachment is necessary in the SWPPP and include restoration activities. This permit allows replacement of existing impervious surface within the buffer. Permittees must minimize all potential water quality, scenic and other environmental impacts of these exceptions by the use of additional or redundant (double) BMPs and must document this in the SWPPP for the project. [Minn. R. 7090] |
| 23.12 | Permittees must design the permanent stormwater treatment system so the discharge from the project minimizes any increase in the temperature of trout streams resulting from the one (1) and two (2) year 24-hour precipitation events. This includes all tributaries of designated trout streams located within the same Public Land Survey System (PLSS) Section. Permittees must incorporate one or more of the following measures, in order of preference:<br><br>a. Provide stormwater infiltration or other volume reduction practices as described in item 15.4 and 15.5, to reduce runoff. Infiltration systems must discharge all stormwater routed to the system within 24 hours.<br>b. Provide stormwater filtration as described in Section 17. Filtration systems must discharge all stormwater routed to the system within 24 hours.<br>c. Minimize the discharge from connected impervious surfaces by discharging to vegetated areas, or grass swales, and through the use of other non-structural controls.<br>d. If ponding is used, the design must include an appropriate combination of measures such as shading, vegetated swale discharges or constructed wetland treatment cells that limit temperature increases. The pond must be designed as a dry pond and should draw down in 24 hours or less.<br>e. Other methods that minimize any increase in the temperature of the trout stream. [Minn. R. 7090] |
| 23.13 | Permittees must conduct routine site inspections once every three (3) days as described in item 11.2 for projects that discharge to prohibited waters. [Minn. R. 7090] |
| 23.14 | If discharges to prohibited waters cannot provide volume reduction equal to one (1) inch times the net increase of impervious surfaces as required in item 15.4 and 15.5, permittees must develop a permanent stormwater treatment system design that will result in no net increase of TSS or phosphorus to the prohibited water. Permittees must keep the plan in the SWPPP for the project. [Minn. R. 7090] |
| 24.1 | **General Provisions**. [Minn. R. 7090] |
| 24.2 | If the MPCA determines that an individual permit would more appropriately regulate the construction activity, the MPCA may require an individual permit to continue the construction activity. Coverage under this general permit will remain in effect until the MPCA issues an individual permit. [Minn. R. 7001.0210, Subp. 6] |
| 24.3 | If the permittee cannot meet the terms and conditions of this general permit, an owner may request an individual permit, in accordance with Minn. R. 7001.0210 subp. 6. [Minn. R. 7001.0210, Subp. 6] |

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| 24.4 | Any interested person may petition the MPCA to require an individual NPDES/SDS permit in accordance with 40 CFR 122.28(b)(3). [40 CFR 122.29(b)(3)] |
| 24.5 | Permittees must make the SWPPP, including all inspection reports, maintenance records, training records and other information required by this permit, available to federal, state, and local officials within three (3) days upon request for the duration of the permit and for three (3) years following the NOT. [Minn. R. 7090] |
| 24.6 | Permittees may not assign or transfer this permit except when the transfer occurs in accordance with the applicable requirements of item 3.7 and 3.8. [Minn. R. 7090] |
| 24.7 | Nothing in this permit must be construed to relieve the permittees from civil or criminal penalties for noncompliance with the terms and conditions provided herein. Nothing in this permit must be construed to preclude the initiation of any legal action or relieve the permittees from any responsibilities, liabilities, or penalties to which the permittees is/are or may be subject to under Section 311 of the Clean Water Act and Minn. Stat. Sect. 115 and 116, as amended. Permittees are not liable for permit requirements for activities occurring on those portions of a site where the permit has been transferred to another party as required in item 3.7 or the permittees have submitted the NOT as required in Section 4. [Minn. R. 7090] |
| 24.8 | The provisions of this permit are severable. If any provision of this permit or the application of any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this permit must not be affected thereby. [Minn. R. 7090] |
| 24.9 | The permittees must comply with the provisions of Minn. R. 7001.0150, subp. 3 and Minn. R. 7001.1090, subp. 1(A), 1(B), 1(C), 1(H), 1(I), 1(J), 1(K), and 1(L). [Minn. R. 7090] |
| 24.10 | The permittees must allow access as provided in 40 CFR 122.41(i) and Minn. Stat. Sect. 115.04. The permittees must allow representatives of the MPCA or any member, employee or agent thereof, when authorized by it, upon presentation of credentials, to enter upon any property, public or private, for the purpose of obtaining information or examination of records or conducting surveys or investigations. [40 CFR 122.41(i)] |
| 24.11 | For the purposes of Minn. R. 7090 and other documents that reference specific sections of this permit, "Stormwater Discharge Design Requirements" corresponds to Sections 5, 6 and 14 through 21; "Construction Activity Requirements" corresponds to Sections 7 through 13; and "Appendix A" corresponds to Sections 22 and 23. [Minn. R. 7090] |
| 25.1 | **Definitions**. [Minn. R. 7090] |
| 25.2 | "Active karst" means a terrain having distinctive landforms and hydrology created primarily from the dissolution of soluble rocks within 50 feet of the land surface. [Minn. R. 7090] |
| 25.3 | "Aerial radius measurement" means the shortest straight line distance measurement between the point of stormwater discharge from a project construction site to the nearest edge of the water body receiving the stormwater. This measurement does not follow the meander flow path. [Minn. R. 7090] |
| 25.4 | "Best Management Practices (BMPs)" means the most effective and practicable means of erosion prevention and sediment control, and water quality management practices that are the most effective and practicable means of to control, prevent, and minimize degradation of surface water, including avoidance of impacts, construction-phasing, minimizing the length of time soil areas are exposed, prohibitions, pollution prevention through good housekeeping, and other management practices published by state or designated area-wide planning agencies. [Minn. R. 7090] |
| 25.5 | "Common Plan of Development or Sale" means one proposed plan for a contiguous area where multiple separate and distinct land-disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. One plan is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land-disturbing activities may occur. [Minn. R. 7090] |
| 25.6 | "Construction Activity" means activities including clearing, grading, and excavating, that result in land disturbance of equal to or greater than one acre, including the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one acre. This includes a disturbance to the land that results in a change in the topography, existing soil cover, both vegetative and nonvegetative, or the existing soil topography that may result in accelerated stormwater runoff that may lead to soil erosion and movement of sediment. Construction activity does not include a disturbance to the land of less than five acres for the |

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| | purpose of routine maintenance performed to maintain the original line and grade, hydraulic capacity, and original purpose of the facility. Routine maintenance does not include activities such as repairs, replacement and other types of non-routine maintenance. Pavement rehabilitation that does not disturb the underlying soils (e.g., mill and overlay projects) is not construction activity. [Minn. R. 7090] |
| 25.7 | "Dewatering" means the removal of surface or ground water to dry and/or solidify a construction site to enable construction activity. Dewatering may require a Minnesota Department of Natural Resources water appropriation permit and, if dewatering water is contaminated, discharge of such water may require an individual MPCA NPDES/SDS permit. [Minn. R. 7090] |
| 25.8 | "Energy Dissipation" means methods employed at pipe outlets to prevent erosion caused by the rapid discharge of water scouring soils. [Minn. R. 7090] |
| 25.9 | "Erosion Prevention" means measures employed to prevent erosion such as soil stabilization practices, permanent cover or construction phasing. [Minn. R. 7090] |
| 25.10 | "General Contractor" means the party who signs the construction contract with the owner to construct the entire project described in the final plans and specifications. Where the construction project involves more than one contractor, the general contractor is the party responsible for managing the entire project on behalf of the owner. In some cases, the owner is the general contractor. In these cases, the owner signs the permit application as the operator and becomes the sole permittee. [Minn. R. 7090] |
| 25.11 | "Groundwater" means the water contained below the surface of the earth in the saturated zone including, without limitation, all waters whether under confined, unconfined, or perched conditions, in near surface unconsolidated sediment or regolith, or in rock formations deeper underground. [Minn. R. 7060] |
| 25.12 | "Homeowner Fact Sheet" means an MPCA fact sheet available on the MPCA Construction Stormwater website for permittees to give to homeowners at the time of sale. [Minn. R. 7090] |
| 25.13 | "Infeasible" means not technologically possible or not economically practicable and achievable in light of the best industry practices. [Minn. R. 7090] |
| 25.14 | "Initiated immediately" means taking an action to commence soil stabilization as soon as practicable, but no later than the end of the work day, following the day when the land-disturbing activities temporarily or permanently cease, if the permittees know that construction work on that portion of the site will be temporarily ceased for 14 or more additional calendar days or 7 calendar days where item 23.9 applies. Permittees can initiate stabilization by:<br><br>a. prepping the soil for vegetative or non-vegetative stabilization; or<br>b. applying mulch or other non-vegetative product to the exposed soil area; or<br>c. seeding or planting the exposed area; or<br>d. starting any of the activities in a - c on a portion of the area to be stabilized, but not on the entire area; or<br>e. finalizing arrangements to have stabilization product fully installed in compliance with the applicable deadline for completing stabilization. [Minn. R. 7090] |
| 25.15 | "Impervious Surface" means a constructed hard surface that either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to development. Examples include rooftops, sidewalks, driveways, parking lots, and concrete, asphalt, or gravel roads. Bridges over surface waters are considered impervious surfaces. [Minn. R. 7090] |
| 25.16 | "National Pollutant Discharge Elimination System (NPDES)" means the program for issuing, modifying, revoking, reissuing, terminating, monitoring, and enforcing permits under the Clean Water Act, as amended (33 U.S.C. 1251 et seq. Section 1342 and 40 CFR parts 122, 123, 124 and 450). [Minn. R. 7090] |
| 25.17 | "Natural Buffer" means an area of undisturbed cover surrounding surface waters within which construction activities are restricted. Natural buffer includes the vegetation, exposed rock, or barren ground that exists prior to commencement of earth-disturbing activities. [Minn. R. 7090] |
| 25.18 | "Normal Wetted Perimeter" means the area of a conveyance, such as a ditch or channel, that is in contact with water during flow events that are expected to occur from a two-year, 24-hour storm event. [Minn. R. 7090] |
| 25.19 | "Notice of Termination (NOT)" means the form (electronic or paper) required for terminating coverage under the Construction General permit. [Minn. R. 7090] |

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| 25.20 | "Operator" means the person (usually the general contractor), firm, governmental agency, or other entity designated by the owner who has day to day operational control and/or the ability to modify project plans and specifications related to the SWPPP. The permit application must list the operator as a permittee. Subcontractors hired by and under supervision of the general contractor are not operators. [Minn. R. 7090] |
| 25.21 | "Owner" means the person, firm, governmental agency, or other entity possessing the title of the land on which the construction activities will occur or, if the construction activity is for a lease, easement, or mineral rights license holder, the party or individual identified as the lease, easement or mineral rights license holder; or the contracting government agency responsible for the construction activity. [Minn. R. 7090] |
| 25.22 | "Permanent Cover" means surface types that will prevent soil failure under erosive conditions. Examples include: gravel, concrete, perennial cover, or other landscaped material that will permanently arrest soil erosion. Permittees must establish a uniform perennial vegetative cover (i.e., evenly distributed, without large bare areas) with a density of 70 percent of the native background vegetative cover on all areas not covered by permanent structures, or equivalent permanent stabilization measures. Permanent cover does not include temporary BMPs such as wood fiber blanket, mulch, and rolled erosion control products. [Minn. R. 7090] |
| 25.23 | "Permittees" means the persons, firm, governmental agency, or other entity identified as the owner and operator on the application submitted to the MPCA and are responsible for compliance with the terms and conditions of this permit. [Minn. R. 7090] |
| 25.24 | "Project(s)" means all construction activity planned and/or conducted under a particular permit. The project occurs on the site or sites described in the permit application, the SWPPP and in the associated plans, specifications and contract documents. [Minn. R. 7090] |
| 25.25 | "Public Waters" means all water basins and watercourses described in Minn. Stat. Sect. 103G.005 subp. 15. [Minn. R. 7090] |
| 25.26 | "Redoximorphic Features" means a color pattern in soil, formed by oxidation and reduction process of iron and/or manganese in seasonally saturated soil. [Minn. R. 7090] |
| 25.27 | "Section" includes all item numbers of the same whole number. For example, "Section 3" of the permit refers to items 3.1 through 3.8. [Minn. R. 7090] |
| 25.28 | "Seasonally Saturated Soil" means the highest seasonal elevation in the soil in a reduced chemical state because of soil voids filled with water causing anaerobic conditions. Seasonally saturated soil is evidenced by the presence of redoximorphic features or other information determined by scientifically established methods or empirical field measurements. [Minn. R. 7090] |
| 25.29 | "Sediment Control" means methods employed to prevent suspended sediment in stormwater from leaving the site (e.g. silt fences, compost logs and storm drain inlet protection). [Minn. R. 7090] |
| 25.30 | "Stabilize", "Stabilized", "Stabilization" means the exposed ground surface has been covered by appropriate materials such as mulch, staked sod, riprap, erosion control blanket, mats or other material that prevents erosion from occurring. Grass seeding, agricultural crop seeding or other seeding alone is not stabilization. Mulch materials must achieve approximately 90 percent ground coverage (typically 2 ton/acre). [Minn. R. 7090] |
| 25.31 | "Stormwater" means precipitation runoff, stormwater runoff, snowmelt runoff, and any other surface runoff and drainage. [Minn. R. 7090] |
| 25.32 | "Steep Slopes" means slopes that are 1:3 (V:H) (33.3 percent) or steeper in grade. [Minn. R. 7090] |
| 25.33 | "Storm Water Pollution Prevention Plan (SWPPP)" means a plan for stormwater discharge that includes all required content under in Section 5 that describes the erosion prevention, sediment control and waste control BMPs and permanent stormwater treatment systems. [Minn. R. 7090] |
| 25.34 | "Surface Water or Waters" means all streams, lakes, ponds, marshes, wetlands, reservoirs, springs, rivers, drainage systems, waterways, watercourses, and irrigation systems whether natural or artificial, public or private, except that surface waters do not include stormwater treatment systems constructed from upland. This permit does not consider stormwater treatment systems constructed in wetlands and mitigated in accordance with Section 22 as surface waters. [Minn. R. 7090] |
| 25.35 | "Waters of the State" (as defined in Minn. Stat. Sect. 115.01, subp. 22) means all streams, lakes, ponds, |

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| | marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof. [Minn. Stat. 115.01, Subp. 22] |
| 25.36 | "Water Quality Volume" means one (1) inch of runoff from the net increase in impervious surfaces created by the project (calculated as an instantaneous volume). [Minn. R. 7090] |
| 25.37 | "Wetlands" (as defined in Minn. R. 7050.0186, subp. 1a.B.) means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Constructed wetlands designed for wastewater treatment are not waters of the state. Wetlands must have the following attributes:<br><br>a. a predominance of hydric soils; and<br>b. inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in a saturated soil condition; and<br>c. under normal circumstances support a prevalence of such vegetation. [Minn. R. 7050.0186, Subp. 1a.B] |

# Attachment E

Site Inspection Forms

AET Project No. P-0002258

Sedimentation Practices

University of Minnesota

UNIVERSITY OF MINNESOTA

**Stormwater Treatment: Assessment and Maintenance**

**Field Data Sheet for Level 1 Assessment: Visual Inspection**
**Dry Ponds**

Inspector's Name(s):_____
Date of Inspection:_____
Location of the wet pond:_____
Address or Intersection:_____
Latititude, Longitude:_____
Date the wet pond began operation: _____
Wet pond dimensions. Depth (ft.): _____
Area (ft. x ft.) _____
Time since last rainfall (hr): _____
Quantity of last rainfall (in): _____
Rainfall Measurement Location: _____

***Site Sketch (include inlets, outlets, north arrow, etc.)***

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? □ Yes □ No □ I don't know
   1. a) If yes, enter date:_____
   1. b) Based on previous visual inspections, have any corrective actions been taken?
   □ Yes □ No □ I don't know (If yes, describe actions in comments box)

2. Has it rained within the last 48 hours at this location? □ Yes □ No □ I don't know

3. Access
   3. a) Access to the dry pond is:
   □ Clear □ Partially obstructed □ Mostly obstructed □ Inaccessible
   3. b) If obstructed, the obstruction is (choose and provide comments) :
   □ temporary **and** □ no action needed **or** □ action needed
   □ permanent **and** □ before or during installation **or** □ new since installation
   3. c) Access to the upstream and downstream drainage is:
   □ Clear □ Partially obstructed □ Mostly obstructed □ Inaccessible
   3. d) If obstructed, the obstruction is (choose and provide comments) :
   □ temporary **and** □ no action needed **or** □ action needed
   □ permanent **and** □ before or during installation **or** □ new since installation

Comments

Sedimentation Practices

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4. Inlet Structures

4. a) How many inlet structures are present? □ 0 □ 1 □ 2 □ 3 □ 4 □ 5 □ > 5

4. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (ie. debris, sediment, vegetation, etc.)

| | Inlet #: | Inlet #: | Inlet #: | Inlet #: | Inlet #: |
|---|---|---|---|---|---|
| Partially | | | | | |
| Completely | | | | | |
| Not Applicable | | | | | |

4. c) Are any of the inlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

| | Inlet #: | Inlet #: | Inlet #: | Inlet #: | Inlet #: |
|---|---|---|---|---|---|
| Reason | | | | | |

5. Is there standing water in the dry pond? □ Yes □ No

5. a) If yes, does the water have:

□ Surface sheen (from oils or gasoline)
□ Murky color (from suspended solids)
□ Green color (from algae or other biological activity)
□ Other (describe In comment box)

6. Is there evidence of illicit storm sewer discharges?

□ Yes □ No □ I don't know (if yes, describe in comment box)

7. Are there indications of any of the following in the dry pond? (If yes, mark on site sketch)

□ Sediment deposition
□ Erosion or channelization
□ Excessive or undesirable vegetation (that needs mowing or removal)
□ Bare soil or lack of healthy vegetation significantly different from the original design
□ Litter or debris
□ Other
□ No

7. a) If sediment deposition is evident, what is the source?

□ Erosion or channelization inside the dry pond
□ Erosion or channelization outside the dry pond
□ Construction site erosion
□ Other
□ Unknown

| Comments |
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Sedimentation Practices

**University of Minnesota**

8. Are there indications of any of the following on the banks of the dry pond:
   - □ Erosion or channelization
   - □ Soil slides or bulges
   - □ Excessive animal burrows
   - □ Seeps and wet spots
   - □ Poorly vegetated areas
   - □ Trees on constructed slopes

9. Are any outlet or overflow structures clogged? □ No □ Partially □ Completely □ NA

9. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

| | Outlet #: | Outlet #: | Outlet #: |
|---|---|---|---|
| Material | | | |
| Partial or Comp. | | | |

9. b) Are any of the outlet or overflow structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

| | Outlet #: | Outlet #: | Outlet #: |
|---|---|---|---|
| Reason | | | |

10. Inspector's Recommendations. When is maintenance needed?
   - □ Before the next rainfall
   - □ Before the next rainy season
   - □ Within a year or two
   - □ No sign that any is required

| Comments |
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Sedimentation Practices **University of Minnesota**

11. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***

Filtration Practices 1 of 4

UNIVERSITY OF MINNESOTA

**Stormwater Treatment: Assessment and Maintenance**

**Field Data Sheet for Level 1 Assessment: Visual Inspection**
**Filtration Practices**

Inspector's Name(s):_____
Date of Inspection:_____
Location of the filtration practice:_____
Address or Intersection:_____
Latititude, Longitude:_____
Date the filtration practice began operation: _____
Filter Size (ft. x ft.): _____
Time since last rainfall (hr): _____
Quantity of last rainfall (in): _____
Rainfall Measurement Location: _____

***Site Sketch (include inlets, outlets, etc.)***

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? □ Yes □ No □ I don't know
   1. a) If yes, enter date:_____
   1. b) Based on previous visual inspections, have any corrective actions been taken?
   □ Yes □ No □ I don't know (If yes, describe actions in comments box)

2. Has it rained within the last 48 hours at this location? □ Yes □ No □ I don't know

3. Does this filtration practice untilize pretreatment practices upstream?
   □ Yes □ No □ I don't know (If yes, describe pretreatment practices in comment box)

4. Access
   4. a) Access to the filtration practice is:
   □ Clear □ Partially obstructed □ Mostly obstructed □ Inaccessible
   4. b) If obstructed, the obstruction is (choose and provide comments) :
   □ temporary **and** □ no action needed **or** □ action needed
   □ permanent **and** □ before or during installation **or** □ new since installation
   4. c) Access to the upstream and downstream drainage is:
   □ Clear □ Partially obstructed □ Mostly obstructed □ Inaccessible
   4. d) If obstructed, the obstruction is (choose and provide comments) :
   □ temporary **and** □ no action needed **or** □ action needed
   □ permanent **and** □ before or during installation **or** □ new since installation

Comments

Filtration Practices 2 of 4

5. Inlet Structures

5. a) How many inlet structures are present? □ 0 □ 1 □ 2 □ 3 □ 4 □ 5 □ > 5

5. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (ie. debris, sediment, vegetation, etc.)

| | Inlet #: | Inlet #: | Inlet #: | Inlet #: | Inlet #: |
|---|---|---|---|---|---|
| Partially | | | | | |
| Completely | | | | | |
| Not Applicable | | | | | |

5. c) Are any of the inlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

| | Inlet #: | Inlet #: | Inlet #: | Inlet #: | Inlet #: |
|---|---|---|---|---|---|
| Yes | | | | | |
| No | | | | | |

6. Is there standing water in the filtration practice? □ Yes □ No

6. a) If yes, does the water have:
- □ Surface sheen (from oils or gasoline)
- □ Murky color (from suspended solids)
- □ Green color (from algae or other biological activity)
- □ Other (describe In comment box)

7. Is there evidence of illicit storm sewer discharges?
□ Yes □ No □ I don't know (if yes, describe in comment box)

8. What is the approximate percentage of vegetation coverage in the practice? _____ %

9. Are there indications of any of the following in the filtration practice? (If yes, mark on site sketch)
- □ Sediment deposition
- □ Erosion or channelization
- □ Excessive or undesirable vegetation (that needs mowing or removal)
- □ Bare soil or lack of healthy vegetation significantly different from the original design
- □ Litter or debris
- □ Other
- □ No

9. a) If sediment deposition is evident, what is the source?
- □ Erosion or channelization inside the filtration practice
- □ Erosion or channelization outside the filtration practice
- □ Construction site erosion
- □ Other
- □ Unknown

Comments

Filtration Practices 3 of 4

10. Are there indications of any of the following on the banks of the filtration practice:
    - □ Erosion or channelization
    - □ Soil slides or bulges
    - □ Excessive animal burrows
    - □ Seeps and wet spots
    - □ Poorly vegetated areas
    - □ Trees on constructed slopes

11. Is the bottom of the filtration practice covered with a layer of silts and/or clays?
    □ Yes □ No

12. Are any outlet structures or the emergency spillway clogged? □ No □ Partially □ Completely □ NA

    12. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

| | Outlet #: | Outlet #: | Outlet #: |
|---|---|---|---|
| Material | | | |

    12. b) Are any of the outlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

| | Outlet #: | Outlet #: | Outlet #: |
|---|---|---|---|
| Reason | | | |

13. Is there any evidence of any of the following downstream of the outlet structure?
    □ Sediment deposition □ Erosion or channelization □ Other □ No

    13. a) If sediment deposition is evident, what is the source?
    - □ Erosion or channelization inside the filtration practice
    - □ Erosion or channelization outside the filtration practice
    - □ Construction site erosion
    - □ Other, Specify_____
    - □ Unknown

14. Inspector's Recommendations. When is maintenance needed?
    - □ Before the next rainfall
    - □ Before the next rainy season
    - □ Within a year or two
    - □ No sign that any is required

| Comments |
|---|
| |

Filtration Practices 4 of 4

15. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***

Infiltration Practices

**University of Minnesota**

UNIVERSITY OF MINNESOTA

**Stormwater Treatment: Assessment and Maintenance**

**Field Data Sheet for Level 1 Assessment: Visual Inspection**
**Infiltration Basins and Trenches**

Inspector's Name(s):_____
Date of Inspection:_____
Location of the infiltration practice:_____
Address or Intersection:_____
Latititude, Longitude:_____
Date the infiltration practice began operation: _____
Filter Size (ft. x ft.): _____
Time since last rainfall (hr): _____
Quantity of last rainfall (in): _____
Rainfall Measurement Location: _____

***Site Sketch (include inlets, north arrow, etc.)***

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? □ Yes □ No □ I don't know
   1. a) If yes, enter date:_____
   1. b) Based on previous visual inspections, have any corrective actions been taken?
   □ Yes □ No □ I don't know (If yes, describe actions in comments box)

2. Has it rained within the last 48 hours at this location? □ Yes □ No □ I don't know

3. Does this infiltration practice untilize pretreatment practices upstream?
   □ Yes □ No □ I don't know (If yes, describe pretreatment practices in comment box)

4. Access
   4. a) Access to the infiltration basin or trench is:
   □ Clear □ Partially obstructed □ Mostly obstructed □ Inaccessible
   4. b) If obstructed, the obstruction is (choose and provide comments) :
   □ temporary **and** □ no action needed **or** □ action needed
   □ permanent **and** □ before or during installation **or** □ new since installation
   4. c) Access to the upstream and downstream drainage is:
   □ Clear □ Partially obstructed □ Mostly obstructed □ Inaccessible
   4. d) If obstructed, the obstruction is (choose and provide comments) :
   □ temporary **and** □ no action needed **or** □ action needed
   □ permanent **and** □ before or during installation **or** □ new since installation

| Comments |
| --- |
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Infiltration Practices

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5. Inlet Structures

5. a) How many inlet structures are present? □ 0 □ 1 □ 2 □ 3 □ 4 □ 5 □ > 5

5. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (ie. debris, sediment, vegetation, etc.)

| | Inlet #: | Inlet #: | Inlet #: | Inlet #: | Inlet #: |
|---|---|---|---|---|---|
| Partially | | | | | |
| Completely | | | | | |
| Not Applicable | | | | | |

5. c) Are any of the inlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

| | Inlet #: | Inlet #: | Inlet #: | Inlet #: | Inlet #: |
|---|---|---|---|---|---|
| Reason | | | | | |

6. Is there standing water in the filtration practice? □ Yes □ No

6. a) If yes, does the water have:
- □ Surface sheen (from oils or gasoline)
- □ Murky color (from suspended solids)
- □ Green color (from algae or other biological activity)
- □ Other (describe In comment box)

7. Is there evidence of illicit storm sewer discharges?
□ Yes □ No □ I don't know (if yes, describe in comment box)

8. Does the infiltration basin or trench smell like gasoline or oil? □ Yes □ No

9. What is the approximate percentage of vegetation coverage in the practice? _____ %

10. Are there indications of any of the following in the infiltration practice? (If yes, mark on site sketch)
- □ Sediment deposition that will significantly impede infiltration
- □ Erosion or channelization
- □ Bare soil or lack of healthy vegetation significantly different from the original design
- □ Litter or debris
- □ Standing water more than 48 hours after the end of the most recent runoff event
- □ Other
- □ No

10. a) If sediment deposition is evident, what is the source?
- □ Erosion or channelization inside the infiltration practice
- □ Erosion or channelization outside the infiltration practice
- □ Construction site erosion
- □ Other
- □ Unknown

| Comments |
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Infiltration Practices

**University of Minnesota**

11. Are there indications of any of the following on the banks of the infiltration basin or trench:
    - □ Erosion or channelization
    - □ Soil slides or bulges
    - □ Excessive animal burrows
    - □ Seeps and wet spots
    - □ Poorly vegetated areas
    - □ Trees on constructed slopes

12. Is the bottom of the infiltration basin or trench covered with a layer of silts and/or clays?
    □ Yes □ No

13. Are any overflow structures clogged? □ No □ Partially □ Completely □ NA

13. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

| | Outlet #: | Outlet #: | Outlet #: |
|---|---|---|---|
| Material | | | |
| Partial or Comp. | | | |

13. b) Are any of the overflow structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

| | Outlet #: | Outlet #: | Outlet #: |
|---|---|---|---|
| Reason | | | |

14. Inspector's Recommendations. When is maintenance needed?
    - □ Before the next rainfall
    - □ Before the next rainy season
    - □ Within a year or two
    - □ No sign that any is required

| Comments |
|---|
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Infiltration Practices **University of Minnesota**

15. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***

# CITY OF ROCHESTER
# STORM WATER OUTFALL INSPECTION PROGRAM
# REVIEW ALL STORM SEWER OUTFALLS FOR THE FOLLOWING:

Inspector Name: _____Inspection Date: _____

Temperature: _____ deg. F Last precipitation date:_____ Amount: _____ inches Type: _____

Outfall ID: _____ Size: _____ inches

Outfall Type:
- ☐ Reinforced concrete pipe
- ☐ Corrugated metal pipe
- ☐ Box culvert
- ☐ Plastic pipe
- ☐ Ditch
- ☐ Ravine (natural drainage way)
- ☐ Other (VCP, DIP, ASP, PVC, etc)

Outfall Owner:
- ☐ Other
- ☐ City
- ☐ County
- ☐ MNDOT
- ☐ Private
- ☐ State

Is an apron present? Additional apron comments:_____
☐ Yes ☐ No If yes, ☐ Concrete ☐ Metal ☐ Other ☐ Trash guard present ☐ No trash guard

Is rip-rap present?
☐ Yes ☐ No If yes, describe condition: _____

Land use in immediate vicinity of outfall:
☐ Residential ☐ Commercial ☐ Open Space (specify: _____)

Does the outfall allow the free flow of water?
☐ Yes ☐ No If not, what is obstructing the flow?
☐ Garbage ☐ Sediment ☐ Vegetation ☐ Animal dens

| | |
|---|---|
| Indicate any evidence of environmental impacts:<br>☐ Scouring<br>☐ Sediment build-up<br>☐ Garbage entrapment<br>☐ Entrapment of decaying vegetation<br>☐ Illicit discharges | Is drainage occurring? ☐ Yes ☐ No<br><br>If drainage is occurring from the outfall, describe the following:<br>a. Color _____ c. Clarity _____<br>b. Odor _____ d. Staining_____<br>What is the source of flow? ☐ Groundwat<br>☐ PermittedNPDES Discharge Permit<br>☐ Illicit Discharge |
| Identify maintenance needs:<br>☐ Obstruction removal or cleaning<br>☐ Erosion stabilization<br>☐ Apron not intact<br>☐ Visible joints not intact<br>☐ Pitting/rusting/holes present<br>☐ Concrete spalling present<br>☐ Road distress above pipe present<br>☐ Other (describe)<br>_____ | Rate each outfall's need for repair, replacement or maintenance:<br>☐ "1" repair, replace, or clean-up immediately<br>☐ "2" repair, replace, or clean-up as soon as practicable<br>☐ "3" like new, no action necessary<br>Other notes: _____<br>_____<br>_____ |

Infiltration Practices

**University of Minnesota**

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**Stormwater Treatment: Assessment and Maintenance**

**Field Data Sheet for Level 1 Assessment: Visual Inspection Permeable Pavements**

Inspector's Name(s):_____
Date of Inspection:_____
Location of the permeable pavement:_____
Address or Intersection:_____
Latititude, Longitude:_____
Date the permeable pavement began operation: _____
Pavement area (ft. x ft.): _____
Time since last rainfall (hr): _____
Quantity of last rainfall (in): _____
Rainfall Measurement Location: _____

***Site Sketch (include curbs, islands, trees, north arrow, etc.)***

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? □ Yes □ No □ I don't know
   1. a) If yes, enter date:_____
   1. b) Based on previous visual inspections, have any corrective actions been taken?
   □ Yes □ No □ I don't know (If yes, describe actions in comments box)

2. Has it rained within the last 48 hours at this location? □ Yes □ No □ I don't know

3. Is there standing water on top of or water within the permeable pavement?
   □ Yes □ No

4. Are there indications of any of the following on top of or within the permeable pavement? (If yes, mark on site sketch)
   □ Sediment deposition
   □ Litter or debris
   □ Other
   □ No

Comments

Infiltration Practices

**University of Minnesota**

4. a) If sediment deposition is evident, what is the source?
   - □ Erosion or channelization inside the permeable pavement
   - □ Erosion or channelization outside the permeable pavement
   - □ Construction site erosion
   - □ Other
   - □ Unknown

5. Inspector's Recommendations. When is maintenance needed?
   - □ Before the next rainfall
   - □ Before the next rainy season
   - □ Within a year or two
   - □ No sign that any is required

| Comments |
| --- |
| |

6. Summarize the results of this inspection and write any other observations in the box below.

| ***Summary and other observations*** |
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| |

Biologically Enhanced Practices

University of Minnesota

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**Stormwater Treatment: Assessment and Maintenance**

**Field Data Sheet for Level 1 Assessment: Visual Inspection**
**Bioretention Practices (including Rain Gardens)**

Inspector's Name(s):_____
Date of Inspection:_____
Location of the bioretention practice:_____
Address or Intersection:_____
Latitude, Longitude:_____
Date the bioretention practice began operation: _____
Bioretention practice area (ft. x ft.): _____
Time since last rainfall (hr): _____
Quantity of last rainfall (in): _____
Rainfall Measurement Location: _____

***Site Sketch (include inlets, outlets, north arrow, etc.)***

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? □ Yes □ No □ I don't know
   1. a) If yes, enter date:_____
   1. b) Based on previous visual inspections, have any corrective actions been taken?
   □ Yes □ No □ I don't know (If yes, describe actions in comments box)

2. Has it rained within the last 48 hours at this location? □ Yes □ No □ I don't know

3. Does this bioretention practice utilize pretreatment practices upstream?
   □ Yes □ No □ I don't know (If yes, describe pretreatment practices in comment box)

4. Access
   4. a) Access to the bioretention practice is:
   □ Clear □ Partially obstructed □ Mostly obstructed □ Inaccessible
   4. b) If obstructed, the obstruction is (choose and provide comments) :
   □ temporary **and** □ no action needed **or** □ action needed
   □ permanent **and** □ before or during installation **or** □ new since installation
   4. c) Access to the upstream and downstream drainage is:
   □ Clear □ Partially obstructed □ Mostly obstructed □ Inaccessible
   4. d) If obstructed, the obstruction is (choose and provide comments) :
   □ temporary **and** □ no action needed **or** □ action needed
   □ permanent **and** □ before or during installation **or** □ new since installation

**Comments**

Biologically Enhanced Practices

**University of Minnesota**

5. Inlet Structures

5. a) How many inlet structures are present? □ 0 □ 1 □ 2 □ 3 □ 4 □ 5 □ > 5

5. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (i.e.,. debris, sediment, vegetation, etc.)

| | Inlet #: | Inlet #: | Inlet #: | Inlet #: | Inlet #: |
|---|---|---|---|---|---|
| Partially | | | | | |
| Completely | | | | | |
| Not Applicable | | | | | |

5. c) Are any of the inlet structures misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

| | Inlet #: | Inlet #: | Inlet #: | Inlet #: | Inlet #: |
|---|---|---|---|---|---|
| Reason | | | | | |

6. Is there standing water in the bioretention practice? □ Yes □ No

6. a) If yes, does the water have:

□ Surface sheen (from oils or gasoline)
□ Murky color (from suspended solids)
□ Green color (from algae or other biological activity)
□ Other (describe In comment box)

7. Is there evidence of illicit storm sewer discharges?

□ Yes □ No □ I don't know (if yes, describe in comment box)

8. Does the bioretention practice smell like gasoline or oil? □ Yes □ No

9. What is the approximate percentage of vegetation coverage in the practice? _____ %

9. a) Does the current vegetation match the original design? □ Yes □ No □ Unknown

9. b) Is there the presence of:

□ Weeds
□ Wetland vegetation
□ Invasive vegetation
□ None of the above
□ Other, specify_____

9. c) Does the vegetation appear to be healthy? □ Yes □ No (if no, describe in comment box)

9. d) Is the vegetation the appropriate size and density? □ Yes □ No (if no, describe in comment box)

**Comments**

Biologically Enhanced Practices

**University of Minnesota**

10. Are there indications of any of the following in the bioretention practice? (If yes, mark on site sketch)
    - □ Sediment deposition
    - □ Erosion or channelization
    - □ Excessive or undesirable vegetation (that needs mowing or removal)
    - □ Litter or debris
    - □ Other
    - □ No

    10. a) If sediment deposition is evident, what is the source?
        - □ Erosion or channelization inside the infiltration practice
        - □ Erosion or channelization outside the infiltration practice
        - □ Construction site erosion
        - □ Other
        - □ Unknown

11. Are there indications of any of the following on the banks of the bioretention practice:
    - □ Erosion or channelization
    - □ Soil slides or bulges
    - □ Excessive animal burrows
    - □ Seeps and wet spots
    - □ Poorly vegetated areas
    - □ Trees on constructed slopes
    - □ None of the above, the banks are in good condition
    - □ Other, specify_____

12. Are any overflow or bypass structures clogged? □ No □ Partially □ Completely □ NA

    12. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

| | Outlet #: | Outlet #: | Outlet #: |
|---|---|---|---|
| Material | | | |
| Partial or Comp. | | | |

    12. b) Are any of the overflow or bypass structures misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown)

| | Outlet #: | Outlet #: | Outlet #: |
|---|---|---|---|
| Reason | | | |

13. Inspector's Recommendations. When is maintenance needed?
    - □ Before the next rainfall
    - □ Before the next rainy season
    - □ Within a year or two
    - □ No sign that any is required

| Comments |
|---|
| |

Biologically Enhanced Practices **University of Minnesota**

14. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***

Sedimentation Practices

University of Minnesota

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**Stormwater Treatment: Assessment and Maintenance**

**Field Data Sheet for Level 1 Assessment: Visual Inspection**
**Underground Sedimentation Devices**

Inspector's Name(s):_____
Date of Inspection:_____
Location of the device pond:_____
Address or Intersection:_____
Latititude, Longitude:_____
Date the device began operation: _____
Device dimensions. Depth (ft.): _____
Area (ft. x ft.) _____
Time since last rainfall (hr): _____
Quantity of last rainfall (in): _____
Rainfall Measurement Location: _____

***Site Sketch (include inlets, outlets, north arrow, etc.)***

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? □ Yes □ No □ I don't know
   1. a) If yes, enter date:_____
   1. b) Based on previous visual inspections, have any corrective actions been taken?
   □ Yes □ No □ I don't know (If yes, describe actions in comments box)

2. Has it rained within the last 48 hours at this location? □ Yes □ No □ I don't know

3. Access
   3. a) Access to the underground sedimentation device is:
   □ Clear □ Partially obstructed □ Mostly obstructed □ Inaccessible
   3. b) If obstructed, the obstruction is (choose and provide comments) :
   □ temporary **and** □ no action needed **or** □ action needed
   □ permanent **and** □ before or during installation **or** □ new since installation
   3. c) Access to the upstream and downstream drainage is:
   □ Clear □ Partially obstructed □ Mostly obstructed □ Inaccessible
   3. d) If obstructed, the obstruction is (choose and provide comments) :
   □ temporary **and** □ no action needed **or** □ action needed
   □ permanent **and** □ before or during installation **or** □ new since installation

Comments

Sedimentation Practices

**University of Minnesota**

4. Inlet Structures

4. a) How many inlet structures are present? □ 0 □ 1 □ 2 □ 3 □ 4 □ 5 □ > 5

4. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (ie. debris, sediment, vegetation, etc.)

| | Inlet #: | Inlet #: | Inlet #: | Inlet #: | Inlet #: |
|---|---|---|---|---|---|
| Partially | | | | | |
| Completely | | | | | |
| Not Applicable | | | | | |

4. c) Are any of the inlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

| | Inlet #: | Inlet #: | Inlet #: | Inlet #: | Inlet #: |
|---|---|---|---|---|---|
| Reason | | | | | |

5. Is a significant amount of water entering the underground device? □ Yes □ No □ I don't know

5. a) If yes, what is the source?

□ Recent rainfall/runoff event
□ Leaking pipes or manholes
□ Lawn irrigation
□ Fire hydrant
□ Other, specify_____

6. Is there evidence of illicit storm sewer discharges?

□ Yes □ No □ I don't know (if yes, describe in comment box)

7. Structure

7. a) Are there excessive amounts of solids, debris, vegetation, or other objects that could be hindering performance or be re-suspended and exit the system during subsequent runoff events?

□ Yes □ No □ I don't know

7. b) Does the structure have any:

□ Significant cracks
□ Leaks
□ Joint failures
□ Structural instability
□ Corrosion
□ Other signs of damage or components requiring attention (describe in comment box)

Comments

Sedimentation Practices

**University of Minnesota**

8. Are any outlet structures clogged? □ No □ Partially □ Completely □ NA

8. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

| | Outlet #: | Outlet #: | Outlet #: |
|---|---|---|---|
| Material | | | |
| Partial or Comp. | | | |

8. b) Are any of the outlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

| | Outlet #: | Outlet #: | Outlet #: |
|---|---|---|---|
| Reason | | | |

9. Is there any evidence of any of the following downstream of the outlet structure?

□ Sediment deposition □ Erosion or channelization □ Other □ No

9. a) If sediment deposition is evident, what is the source?

□ Erosion or channelization inside the filtration practice
□ Erosion or channelization outside the filtration practice
□ Construction site erosion
□ Other, Specify_____
□ Unknown

10. Inspector's Recommendations. When is maintenance needed?

□ Before the next rainfall
□ Before the next rainy season
□ Within a year or two
□ No sign that any is required

| Comments |
|---|
| |

Sedimentation Practices **University of Minnesota**

12. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***