EXHIBIT M

MPCA CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN (SWPPP) TEMPLATE

Stormwater Pollution Prevention Plan

NPDES/SDS Construction Stormwater permit requirements

This fact sheet provides guidance on writing an adequate Stormwater Pollution Prevention Plan (SWPPP) that will assist in keeping a construction site in compliance with the National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Construction Stormwater (CSW) permit. The development of a proper SWPPP is a requirement of the permit and the responsibility of the owner.

What is a Stormwater Pollution Prevention Plan?

A SWPPP is a plan that describes the strategies and steps that will be taken to prevent nonpoint source pollution discharging from a construction site. The SWPPP is a valuable tool and will become the backbone of the entire construction process related to erosion and sediment control and stormwater management, both during construction and post construction. The SWPPP includes a description of all construction activity, temporary and permanent erosion and sediment control BMPs, permanent stormwater management, and other pollution prevention techniques to be implemented throughout the life of the construction project. The SWPPP includes a combination of narrative plans and standard detail sheets that address the foreseeable conditions at any stage of construction.

Why do I need a Stormwater Pollution Prevention Plan?

All construction projects disturbing one acre or more or that are part of a larger common plan of development that ultimately disturbs one acre or more are required to apply for an NPDES/SDS Construction Stormwater permit through the Minnesota Pollution Control Agency (MPCA). The permit states that prior to submitting a permit application, the owner must develop a SWPPP for the construction site. The SWPPP is the plan developed by and for the permittees addressing how they are to meet the requirements and conditions of the CSW general permit specifically for their site. Site conditions, soil types and expected precipitation will be different for each site and the permittee must select the best and cost effective best management practices (BMPs) and installation locations for their particular site. The SWPPP is to be kept at the site for the duration of the project and retained in files for three years after the project is completed. If the construction project disturbs 50 acres or more and discharges to a special or impaired water, the SWPPP must be submitted along with the permit application to the MPCA 30 days prior to the start of any construction activity.

Planning ahead is the most effective way to minimize erosion and sedimentation during construction and reduce project costs.

How is a Stormwater Pollution Prevention Plan helpful to me?

A successful SWPPP identifies the issues of concern before construction begins and is also adaptable for the many unexpected changes that come about with every construction project. Planning ahead is the most effective way to minimize erosion and sedimentation during construction and reduce project costs. A well organized and planned out SWPPP will assist in the prevention of unnecessary permit violations and save the owner and contractor time, money, and effort over the course of the project.

What are the necessary components of a Stormwater Pollution Prevention Plan?

The NPDES/SDS Construction Stormwater permit outlines specific requirements of a SWPPP. In order to develop a truly effective and useful SWPPP, it is important to carefully think about each of these requirements and to clearly document a plan for the construction project.

The Owner must identify a trained individual to oversee implementation of the SWPPP, including inspections and maintenance activities required by the permit. Also, the person preparing the SWPPP must be knowledgeable of the permit requirements and trained in preparation of SWPPPs.

The SWPPP must include the following components:

- A description of the construction activities and the potential for sediment and other pollutant discharges from the site.
- Maps showing the locations of all surface waters, including wetlands, stormwater ponds or basins within one mile of the site.
- Areas of the site that will drain to a public water the Department of Natural Resources has promulgated "work in water restrictions" for fish spawning timeframes.
- A determination whether surface waters within one mile of the site are special or impaired for one of the construction-related parameters and additional or enhanced BMPs that will be utilized to address the special or impaired waters.
- Stormwater pollution mitigation measures to be utilized as a result of an environmental review.
- Additional measures needed at the site to address karst or drinking water supply management areas.
- Training documentation for all individuals required to be trained in associated duties in regard to the SWPPP.
- A site map showing both the existing and final grades, including direction of flow and pre and post drainage area divides. The site map must also include locations of steep slopes, impervious surfaces, soil types, and pollutant-generating activities (building products, pesticides, herbicides, fertilizer, treatment chemicals, hazardous materials, solid waste, portable toilets, etc.).
- Estimated quantities of all erosion prevention and sediment control BMPs to be used for the life of the project.
- Stormwater design specifications and calculations for stormwater management systems, including the number of acres of existing and new impervious surfaces.
- The following factors must be accounted for in design of BMPs to be used at the site:
  - the amount, frequency, intensity and duration of precipitation
  - stormwater runoff and run-on and expected flow from impervious surfaces
  - slope lengths and steepness, the site location and drainage features
  - flow rate and volume of channelized flow
  - soil types
- Timing of installation for all erosion prevention and sediment control BMPs and permanent stormwater management systems.
- Location and type of all permanent and temporary erosion prevention and sediment control BMPs to be installed at the site along with procedures to establish additional BMPs as necessary.
- A description of methods to be used for site dewatering and basin draining.
- Areas not to be disturbed on the site, including the location of buffer zones.
- Locations of areas to be phased to minimize duration of exposed soils.
- Methods to minimize soil compaction and preserve top soil at the site.
- Methods used to achieve final stabilization.

- Documentation why certain design requirements or SWPPP components are not feasible and the methods to be substituted as allowable by the permit.
- A maintenance plan for permanent stormwater treatment systems, including who will maintain the system.
- A description of pollution prevention measures for storage, handling and disposal of hazardous materials, solid waste, concrete and equipment wash water, portable toilets, construction products and materials.
- Plans for proper use of sediment treatment chemicals (polymers, flocculants, etc.).
- A description of inspection and maintenance activities and record keeping.
- Procedures for terminating permit coverage.

Please refer to the NPDES/SDS General Construction Stormwater permit for more complete details on SWPPP content.

Changes and revisions to the Stormwater Pollution Prevention Plan

The NPDES/SDS Construction Stormwater permit requires that the SWPPP be developed prior to the start of a construction project. It is often difficult to fully plan ahead and more often than not, unexpected changes arise throughout the duration of the project. For this reason, the SWPPP is a flexible and amendable document. It is a living document that should be revised as the project changes and should be used to document all project modifications. The SWPPP is also amended whenever:

Image Courtesy of Emmons & Olivier Resources, Inc.

The NPDES permit requires that all erosion and sediment BMPS be clearly outlined in a site's SWPPP. Changes made throughout construction should be documented in the SWPPP.

- Design, construction, operation, maintenance, weather or seasonal conditions will affect the performance of BMPs and potential for discharge of pollutants at the site.
- Site inspections indicate the BMPs are not effective in minimizing discharges.
- An MPCA inspector determines the project discharges have the potential to violate a water quality standard.
- It is determined the SWPPP is not consistent with the terms and conditions of the permit.

In the case of a change in property ownership, any new owner is required to have an up to date and complete SWPPP. The new owner can modify the original SWPPP or develop a new SWPPP that covers all information required by the permit.

Resources

Minnesota Stormwater Manual
http://www.pca.state.mn.us/index.php?option=com_k2&view=item&id=993

MPCA SWPPP checklist
http://www.pca.state.mn.us/index.php/view-document.html?gid=15629

MPCA stormwater compliance assistance tool kit for small construction operators
www.pca.state.mn.us/publications/wq-strm2-09.pdf

MPCA General Construction Stormwater permit for construction activity
http://www.pca.state.mn.us/water/stormwater/stormwater-c.html

MPCA construction SWPPP Template A www.pca.state.mn.us/publications/wq-strm2-12.pdf

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

SWPPP Template for Small Construction Sites

Stormwater Pollution Prevention Plan (SWPPP)

Doc Type: Stormwater Pollution Prevention Plan

Instructions: This Stormwater Pollution Prevention Plan (SWPPP) Template is intended to provide a means for small (three acres or less) construction sites to comply with the General Stormwater Permit for Construction Activity. Before completing this SWPPP, you must read and understand the requirements in the Minnesota General Stormwater Permit for Construction Activity (MN R100001) available from Minnesota Pollution Control Agency (MPCA) website at http://www.pca.state.mn.us/water/stormwater/index.html. A list of the SWPPP requirements can be found at http://www.pca.state.mn.us/index.php/view-document.html?gid=7423. This template will help you complete the SWPPP components required in Part III and IV of the permit. **Persons preparing SWPPPs are required to have had training in preparation of SWPPPs (Part III.F.).** [Note: To check the checkboxes, 'double click' the box and select "checked" and select "okay".]

I. General Construction Activity Information

a. **Project name:** _____

b. **Describe the construction project location (address/city or township/county/latitude/longitude):**

Address or describe area: _____

City or Township: _____ State: MN Zip code: _____

Latitude/Longitude of approximate centroid of project: _____

c. **Describe the construction activity (type of construction, phases, timelines, potential for discharge of sediment and other pollutants, etc.):**

Project type: (To check the checkboxes, 'double click' the box and select "checked" and select "okay".)

☐ Residential ☐ Commercial/Industrial ☐ Road construction
☐ Residential and road construction ☐ Other (describe): _____

d. **Number total of acres to be disturbed:** _____ (tenths of an acre)

e. **Pre-construction acres of impervious surface:** _____ (tenths of an acre)

f. **Post-construction acres of impervious surface:** _____ (tenths of an acre)

g. **Total new impervious surface acres:** _____ (tenths of an acre)

(Examples of impervious surface include rooftops, sidewalks, patios, driveways, parking lots, storage areas, and concrete, asphalt, or gravel roads.)

II. Receiving Waters

a. **List all waters within one mile (nearest straight line distance) that are likely to receive stormwater runoff from the project site both during or after construction:**

Receiving waters within one mile of project property edge:

Water body ID*	Name of water body	Type (ditch, pond, wetland, calcareous fen, lake, stream, river)	Special water? (See Stormwater Permit Appendix A)	Impaired Water?** (See Stormwater Permit Appendix A)
			☐ Yes ☐ No	☐ Yes ☐ No
			☐ Yes ☐ No	☐ Yes ☐ No
			☐ Yes ☐ No	☐ Yes ☐ No
			☐ Yes ☐ No	☐ Yes ☐ No

** Water Body identification (ID) might not be available for all water bodies. Use the Special and Impaired Waters Search Tool at: http://www.pca.state.mn.us/water/stormwater/stormwater-c.html.*

*** Impaired water for the following pollutant(s) or stressor(s): phosphorus, turbidity, dissolved oxygen, or biotic impairment.*

b. **Use the Special and Impaired Waters Search Tool to locate special and impaired waters at http://www.pca.state.mn.us/wfhya5b).**

c. **Incorporate into this SWPPP any additional Best Management Practices (BMPs) or other specific construction related implementation activities identified in an approved Total Maximum Daily Load and Waste Load Allocations.**

d. **Identify adjacent public waters where the Minnesota Department of Natural Resources (DNR) has declared "work in water restrictions" during fish spawning timeframes:**

e. **Attach maps (U.S. Geologic Survey 7.5 minute quadrangle, National Wetland Inventory maps or equivalent) showing the location and type of all receiving waters, including wetlands, drainage ditches, stormwater ponds or basins, etc. that will receive runoff from the project. Use arrows showing the direction of flow and distance to the water body.**

f. **Identify wetland impacts:**

1. Will construction result in any potential adverse impacts to wetlands, including excavation, degradation of water quality, draining, filling, permanent inundation or flooding, conversion to a stormwater pond? ☐ Yes ☐ No
2. If yes, describe impacts and mitigation measures that were taken to address the impacts (in accordance with Part D of Appendix A of the permit) and attach to this SWPPP, copies of permits or approvals from an official state wide wetland program issued specifically for this project or site:

g. **Describe any stormwater mitigation measures that will be implemented, as a result of an environmental review, endangered or threatened species review or archeological site review:**

h. **Describe any additional (or different) stormwater management measures required for karst or drinking water supply management areas to protect groundwater standards:**

III. Project Plans and Specifications

a. **Attach to this SWPPP site maps and/or plan sheets that depict the following features:**

- The project location and construction limits.
- Existing and final grades, including dividing lines and direction of flow for all pre and post-construction stormwater runoff drainage areas located within the project limits.
- Soil types at the site.
- Locations of impervious surfaces.
- Locations of areas not to be disturbed (e.g., buffer zones, wetlands, etc.).
- Steep slope locations.
- Locations of areas where construction will be phased to minimize duration of exposed soils.
- Portions of the site that drain to a public water with DNR work in water restrictions for fish spawning timeframes.
- Locations of all temporary and permanent erosion and sediment control BMPs as required in Part III. C & D. and Part IV of the permit.
- Buffer zones as required in Part IV.C.9 or Appendix A, Part C.3. of the permit.
- Locations of potential pollution-generating activities identified in Part IV. F. of the permit.
- Standard details for erosion and sediment control BMPs to be installed at the site.

b. **List all anticipated erosion prevention and sediment control BMP quantities needed for the life of the project (e.g., linear ft. silt fence, square feet erosion blanket, tons mulch, etc.):**

IV. Temporary Erosion Prevention Practices

a. **Describe the types of temporary erosion prevention BMPs expected to be implemented on this site during construction:**

1. **Methods of temporarily stabilizing soils and soil stockpiles (e.g., mulches, hydraulic tackifiers, erosion blankets, etc.):**

2. Methods of dissipating velocity along stormwater conveyance channels and at channel outlets (e.g., check dams, sediment traps, rip rap, etc.):

3. Methods to be used for stabilization of ditch and swale wetted perimeters (Note that mulch, hydraulic soil tackifiers, hydromulches, etc. are not acceptable soil stabilization methods for any part of a drainage ditch or swale):

4. Methods to be used for energy dissipation at pipe outlets (e.g., rip rap, splash pads, gabions, etc.):

5. Methods to be used to promote infiltration and sediment removal on the site prior to offsite discharge, unless infeasible (e.g., direct stormwater flow to vegetated areas):

b. Describe timelines to be implemented at this site for completing the installation of the erosion prevention BMPs listed in i, ii, iii, and iv. (see Part IV. B. of the permit for minimum requirements). If applicable, include the timeline for completing soil stabilization for areas within 200 feet of a public water with work in water restrictions due to fish spawning time frames (Part IV.B.2.) and soil stabilization timelines for portions of the site that drain to special or impaired waters as required in Appendix A Part C. 1.a.:

c. Describe additional erosion prevention measures that will be implemented at the site during construction (e.g., construction phasing, minimizing soil disturbance, vegetative buffers, horizontal slope grading, slope draining/terracing, etc.):

d. If applicable, include additional requirements in Appendix A Part C.3 regarding maintaining a 100-foot buffer zone or installing redundant BMPs for portions of the site that drain to special waters:

e. If applicable, describe additional erosion prevention BMPs to be implemented at the site to protect planned infiltration areas:

V. Temporary Sediment Control Practices

a. Describe the methods of sediment control BMPs to be implemented at this site during construction to minimize sediment impacts to surface waters, including curb and gutter systems:

1. Methods to be used for down gradient perimeter control:

2. Methods to be used to contain soil stockpiles:

3. Methods to be used for storm drain inlet protection:

4. Methods to minimize vehicle tracking at construction exits and street sweeping activities:

5. If applicable, additional sediment controls (e.g., diversion berms) to be installed to keep runoff away from planned infiltration areas when excavated prior to final stabilization of the contributing drainage area:

6. Describe methods to be used to minimize soil compaction and preserve top soil (unless infeasible) at this site:

7. Describe plans to preserve a 50-foot natural buffer between the project's soil disturbance and a surface water or plans for redundant sediment controls if a buffer is infeasible:

8. Describe plans for use of sedimentation treatment chemicals (e.g., polymers, flocculants, etc.) see Part IV.C.10 of the permit:

b. Is the project required to install a temporary sediment basin due to 10 or more acres draining to a common location or 5 acres or more if the site is within 1 mile of a special or impaired water? ☐ Yes ☐ No

If yes, describe (or attach plans) showing how the basin will be designed and constructed in accordance with Part III.C of the permit.

c. Will the project include dewatering, basin draining? ☐ Yes ☐ No

If yes, describe measures to be used to treat/dispose of turbid or sediment-laden water and method to prevent erosion or scour of discharge points (see Part IV. D of the permit):

d. Will the project include use of filters for backwash water? ☐ Yes ☐ No

If yes, describe how filter backwash water will be managed on the site or properly disposed (see Part III.D.3. of the permit):

VI. Permanent Stormwater Management System

a. Will the project result in one acre or more of new impervious surfaces or result in one acre or more of new impervious in total if the project is part of a larger plan of development? ☐ Yes ☐ No

b. If yes, a water quality volume of one inch of runoff from the cumulative new impervious surfaces must be retained on site (see Part III.D of the permit) through infiltration unless prohibited due to one of the reasons in Part III.D.1.j. If infiltration is prohibited identify other method of other volume reduction (e.g., filtration system, wet sedimentation basin, regional ponding or equivalent method:

c. Attach design parameters (see Part III.D.) for the planned permanent stormwater management system, including volume calculations, discharge rate calculation, construction details including basin depth, outlet configurations, location, design of pre-treatment devices and timing for installation. For more design information consult the *Minnesota Stormwater Manual* on the MPCA website at http://stormwater.pca.state.mn.us/index.php/Main_Page.

d. For infiltration systems attach on site soil testing results verifying soil type and distance to the seasonal water table or bedrock (from bottom of the basin) in the location of the infiltration or filtration system.

e. For linear projects with lack of right of way to install treatment systems capable of treating the entire water quality volume, identify other method(s) for providing treatment of runoff prior to discharge to surface waters (e.g., grassed swales, filtration systems, smaller ponds or grit chambers, etc.):

1. Attach to this SWPPP documentation of reasonable attempts made to obtain right of way for stormwater treatment systems.

f. For projects that discharge to trout streams, including tributaries to trout streams, identify method of incorporating temperature controls into the permanent stormwater management system:

VII. Inspection and Maintenance Activities

a. Identify the trained individual(s) responsible for installing, supervising, repairing, inspecting, and maintaining erosion prevention and sediment control BMPs at the site:

b. Attach training documentation for each individual:

c. Describe procedures to routinely inspect the construction site, including:

1. A description of record-keeping requirements and content (see Part IV.2. of the permit):

2. Frequency of inspections (see Part IV.E.1. and 3 of the permit.):

3. Areas to be inspected and maintained (see Part IV.E.5. and 6. of the permit):

VIII. Pollution Prevention Management Measures

a. Describe practices for storage of building products with a potential to leach pollutants to minimize exposure to stormwater:

b. Describe practices for storage of pesticides, herbicides, insecticides, fertilizers, treatment chemical, and landscape materials:

c. Describe practices for storage and disposal of hazardous materials or toxic waste (e.g., oil, fuel, hydraulic fluids, paint solvents, petroleum-based products, wood preservative, additives, curing compounds, and acids) according to Minn. R. ch. 7045, including restricted access and secondary containment:

d. Describe collection, storage and disposal of solid waste in compliance with Minn. R. ch. 7035:

e. Describe management of portable toilets to prevent tipping and disposal of sanitary wastes in accordance with Minn. R. ch. 7040:

f. Describe spill prevention and response for fueling and equipment or vehicle maintenance:

g. Describe containment and disposal of vehicle and equipment wash water and prohibiting engine degreasing on the site:

h. Describe storage and disposal of concrete and other washout wastes so that wastes do not contact the ground:

IX. Final Stabilization

a. Describe method of final stabilization (permanent cover) of all disturbed areas:

b. Describe procedures for completing final stabilization and terminating permit coverage (see Part IV.G.1-5):

Documentation of infeasibility:

Minnesota Pollution Control Agency
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St. Paul, MN 55155-4194

SWPPP Checklist

Construction Stormwater Permit Program

Doc Type: Stormwater Pollution Prevention Plan (SWPPP)

C000					

Background: This checklist is used by Minnesota Pollution Control Agency (MPCA) staff for Stormwater Pollution Prevention Plan (SWPPP) reviews. It is provided as an additional resource intended for SWPPP designers for construction projects to assure all required elements of a SWPPP are included. Use of this checklist will help you to determine if your SWPPP is complete, though not all checklist items are applicable to all projects. This checklist can be used for all size projects; however, the guidance document "Stormwater Compliance Assistance Toolkit for Small Construction Operators," contains a SWPPP template designed specifically for small site projects. This guidance is available on the MPCA Construction Stormwater webpage at: http://www.pca.state.mn.us/wfhya5b.

Note - *This checklist is for your information and use is voluntary. The checklist does not need to be returned to the MPCA.*

Review Information

Applicant: _____ Project name: _____

Application date: _____ Reviewer name: _____

Reason for review:

Yes	N/A		Notes
☐	☐	Mandatory (over 50 acres and discharging to a special or impaired water)	
☐	☐	Random audit	
☐	☐	Enforcement case	
		Case lead: _____	

SWPPP contains a combination of:

Yes	N/A	
☐	☐	Narrative
☐	☐	Plan sheets
☐	☐	Standard detail sheets (where appropriate)

SWPPP Information (does the Narrative contain the following)

Yes	N/A	
☐	☐	Describe the nature of the construction activity?
☐	☐	Address the potential for a discharge of sediment and/or other potential pollutants from the site?
☐	☐	Propose erosion prevention and sediment control Best Management Practices (BMPs) to control the discharge of sediment and/or other potential pollutants (IV.F) from the site.
☐	☐	Identify the person knowledgeable and experienced who will oversee the implementation of the SWPPP; the installation, inspection, and maintenance of the BMPs.
☐	☐	Identify the entity (name or title) responsible for performing future Operations and Maintenance (O&M) of the permanent stormwater management system?
☐	☐	List the chain of responsibility for SWPPP implementation for all operators on the site?
☐	☐	Identify the training requirements are satisfied.
☐	☐	Include the designs and calculations for BMPs.
☐	☐	Describe installation timing for all Erosion Sediment Control (ESC) Best Management Practices (BMPs)?
☐	☐	Describe procedures to amend the SWPPP and establish additional temporary ESC BMPs as necessary for site conditions?
☐	☐	Describe final stabilization methods for all exposed areas? (may be in narrative or on plan sheets)
☐	☐	Identify stormwater management measures needed to mitigate impacts identified as a result of environmental, historical, archaeological, or rare species reviews conducted for the project?
☐	☐	Identify additional measures being taken to protect Drinking Water Supply Management Areas?
☐	☐	If site discharges to special water or impaired reach, identify any site areas discharging to the special or impaired reach?
☐	☐	Methods used to minimize soil compaction and preserve topsoil must be described.
☐	☐	Identify construction areas that are adjacent to and drain to Public Waters for which the Minnesota Department of Natural Resources (DNR) has promulgated "work in waters restrictions" during specified fish spawning time frames.

☐ ☐ In designing the stormwater controls, the SWPPP must account for expected amount, frequency, intensity, and duration of precipitation.

☐ ☐ In designing the stormwater controls, the SWPPP must account for nature of stormwater runoff and run-on at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features.

☐ ☐ In designing the stormwater controls, the SWPPP must account for the range of soil particle sizes expected to be present on the site.

☐ ☐ Identify any specific chemicals and the chemical treatment systems that may be used for enhancing the sedimentation process on the site, and how compliance will be achieved with the permit requirements.

☐ ☐ For design requirements or SWPPP components where Permittee determines that compliance with the requirement is infeasible; the SWPPP must document that determination and the substitute BMPs.

Comments: _____

_____

_____

Do plan sheets identify:

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

Comments: _____

_____

_____

Standard plates or specifications:

Yes	N/A	
☐	☐	Are standard plates or specifications included where appropriate?

Part III - Stormwater Discharge Design Requirements

Yes	N/A	
☐	☐	For any stormwater flow that will be channelized at the site, the stormwater controls must be designed to control both peak flowrates and total stormwater volume to minimize erosion at outlets and to minimize downstream channel and streambank erosion.
☐	☐	Are **Temporary Sediment Basins** required on site? (10 acres draining to common location or 5 acres App. A)

If Yes, are they:

Yes	N/A	
☐	☐	Adequately sized – 2-year, 24-hour storm, minimum 1,800 feet^3/acre; **or** no calculative minimum 3,600ft^3/acre?
☐	☐	Designed to prevent short circuiting?
☐	☐	Are outlets designed to remove floating debris?
☐	☐	Are outlets designed to allow complete drawdown?
☐	☐	Are outlets designed to withdraw water from the surface?
☐	☐	Do outlets have energy dissipation?
☐	☐	Have a stabilized emergency spillway?
☐	☐	Sediment Basins must be situated outside of surface waters and any natural buffers.
☐	☐	If compliant temporary sediment basin is not feasible due to site limitations, equivalent sediment controls described.

Comments: _____

_____

_____

Yes N/A

☐ ☐ **Permanent Stormwater Management System**

Yes N/A

☐ ☐ Is calculation of new impervious surface included in SWPPP?

☐ ☐ Is the project located in and complying with Municipal Separate Storm Sewer Systems (MS4) Permit permanent treatment in lieu of the permanent treatment requirements of this permit?

☐ ☐ Are calculations for permanent stormwater management system included (water quality volume of one inch of runoff to be retained on site)?

☐ ☐ If infiltration is prohibited, other methods of volume reduction are considered.

☐ ☐ If infiltration is prohibited, the remainder of the water quality volume is treated by a wet sedimentation basin, filtration system, regional ponding or equivalent methods prior to the discharge of stormwater to surface waters.

☐ ☐ Does the proximity to bedrock preclude the installation of any of the permanent stormwater management practices?

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

Yes N/A

☐ ☐ Grassed swales

☐ ☐ Filtration systems

☐ ☐ Smaller ponds

☐ ☐ Grit chambers

Comments: _____

_____

_____

Which method of permanent stormwater treatment has been selected?

Yes N/A

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

Yes N/A

☐ ☐ Is infiltration/filtration appropriate to the site and land uses?

☐ ☐ Has the system been designed to maintain pre-existing conditions (e.g., do not breach a perched water table that is supporting a wetland)?

☐ ☐ Requirements to avoid excavation of the infiltration system until drainage area constructed and stabilized?

☐ ☐ Are rigorous sediment and erosion controls planned to keep sediment and runoff away from the system?

☐ ☐ Is a pretreatment device planned?

☐ ☐ Is the filtration system designed to remove at least 80% of total suspended solids?

☐ ☐ Is the system sufficient to infiltrate or filter the appropriate water quality volume of one inch?

☐ ☐ Can water quality volume be discharged through the infiltration/filtration system in 48 hours or less?

☐ Additional flows must bypass and be routed through stabilized discharge point.

☐ ☐ Is there a way to visually verify the system is operating as designed?

☐ ☐ Has appropriate testing been conducted to ensure a minimum of three feet of separation to the seasonal water table and/or bedrock?

☐ ☐ Are calculations/computer model results included to demonstrate the design and adequacy of the infiltration or filtration system?

☐ ☐ Is adequate maintenance access provided?

☐ ☐ Is there a maintenance plan that identifies who will perform future maintenance?

☐ ☐ Infiltration is prohibited when the infiltration system will receive discharges from or be constructed in:

☐ Areas where vehicle fueling and maintenance occur.

☐ Areas with less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.

☐ Areas where industrial facilities are not authorized to infiltrate industrial stormwater under an National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Industrial Stormwater Permit issued by the MPCA.

☐ Areas where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating stormwater.

☐ Areas of predominately Hydrological Soil Group D (clay) soils unless allowed by a local unit of government with a current MS4 Permit.

☐ Areas within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features unless allowed by a local unit of government with a current MS4 permit.

☐ Areas within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13., unless allowed by a local unit of government with a current MS4 Permit.

☐ Areas where soil infiltration rates are more than 8.3 inches per hour unless soils are amended to slow the infiltration rate below 8.3 inches per hour or as allowed by a local unit of government with a current MS4 Permit.

Comments: _____

_____

_____

Yes N/A

☐ ☐ **Wet sedimentation basin:**

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

Comments: _____

_____

_____

Yes N/A

☐ ☐ **Regional ponds:**

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

Record Retention Requirements must be addresses in the SWPPP:

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

Comments: _____

_____

_____

Part IV - Construction Activity Requirements

Yes N/A

☐ ☐ **Addresses erosion prevention measures:**

Yes	N/A	
☐	☐	Areas delineated on plans that are not to be disturbed or are areas where disturbance will be minimized.
☐	☐	Areas of steep slopes will minimize disturbance or other techniques to minimize destabilization of steep slopes.
☐	☐	Has appropriate construction phasing been implemented?
☐	☐	Do exposed soils have erosion protection/cover initiated immediately and finished within 14 days (or 7 days Appendix A)?
☐	☐	For DNR Public waters with "work in water restrictions" during specified fish spawning time frames, all exposed soil areas that are adjacent to and drain to these waters must complete the stabilization activities within 24 hours during the restriction period.

☐ ☐ Design includes stormwater conveyance channels to route water around unstabilized areas on the site and to reduce erosion, unless infeasible?
☐ ☐ Are wetted perimeters of ditches stabilized within 200 feet of surface water within 24 hours?
☐ ☐ Temporary or permanent ditches or swales that are being used as a sediment containment system during construction must be stabilized within 24 hours after no longer being used as a sediment containment system.
☐ ☐ Do pipe outlets have energy dissipation within 24 hours of connecting?
☐ ☐ Discharges from stormwater controls are directed to vegetated areas of the site (including any natural buffers) unless infeasible.

Comments: _____

Yes N/A
☐ ☐ **Addresses sediment control measures:**

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

Comments: _____

Yes N/A
☐ Addresses **dewatering and basin draining**:

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

Comments: _____

Yes N/A
☐ ☐ **Addresses inspections and maintenance:**

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

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

Yes N/A

☐ ☐ **Maintenance performed**

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

Comments: _____

Yes N/A

☐ ☐ **Addresses pollution prevention management measures:**

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

Comments: _____

Yes N/A

☐ ☐ **Addresses final stabilization:**

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

Comments: _____

Requirements of Appendix A

Yes N/A

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

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

Yes	N/A	Impaired water	BMP category
☐	☐	TMDL and/or WLA not yet approved	C.1, C.2
☐	☐	Approved TMDL and WLA	BMPs in TMDL

TMDL = Total Maximum Daily Loads
WLA = Waste Load Allocations

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

Comments: _____

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

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

Comments: _____