

Stormwater Management

Post Construction Report Requirements

Overview

Title 3, Chapter 54 of the Minneapolis Code of Ordinances provides that all properties

- Which provided stormwater management devices as a means of compliance or
- That contain an existing stormwater management device or
- Which are over one half-acre and installed a stormwater device in conjunction with the [Storm Water Utility Credit program](#).

Shall provide a Post Construction Report including record drawings as a means of verification that the intent of the approved stormwater management design has been met. This report shall substantiate that all aspects of the original design have been adequately provided for by the construction of the project. The information shall be reviewed by a Registered Professional Engineer in Minnesota. Such review will include a signed statement stating that the information provided with respect to its as-constructed state meets the requirements of the ordinance and functions within the parameters of the approved design.

Post Construction Report Checklist

This verification may be either electronic or reproducible and include but not limited to the following items:

GENERAL REQUIREMENTS

- The original approved plans should be utilized as the base for the record drawings
- Actual elevations shown alongside the proposed with proposed elevations crossed out legible for comparison
- All elevations should be referenced to the same benchmark datum as the original design plans and noted as such Can be found in the City of Minneapolis Stormwater and Sanitary Sewer Guide

SPECIFIC REQUIREMENTS

Can be found in the [City of Minneapolis Stormwater and Sanitary Sewer Guide](#)

Compliance

The Post Construction Report shall be completed within 90 days of the project's certificate of completion. After all the required information has been submitted, Public Works inspectors will conduct a site inspection. A copy of this inspection report detailing the compliance status will be provided to the property owner within 30 days of the inspection.

Responsibility Following Construction/Completion

Upon certification, the approved Stormwater Management Plan shall remain in effect unless the city engineer approves cancellation. All site areas used for the purpose of flood storage or treatment of stormwater runoff shall be preserved and maintained for that use, including areas required for maintenance and inspection.

Regular Maintenance

In accordance with the approved plan, regular maintenance shall be required with all facilities maintained in proper condition for sustained use, consistent with the performance standards including but not limited to:

- The removal and proper disposal of all settled materials from ponds, sumps, grit chambers, and other devices.
- Proper maintenance of all planted materials integral to storm water facility performance, safety, and/or aesthetic quality.

Stormwater Utility

Once the property has been certified as compliant under Chapter 54, the property owner or their designee can apply for a stormwater utility credit. For properties or connected projects, compliance under chapter 54 is a prerequisite to applying for a stormwater utility credit and is not a guarantee of receiving a credit.

SITE PLAN NO. _____ (filled in by City staff)

Stormwater Management Plan Summary Table

Instructions:

- 1) When submitting plans for review and approval by the City, submit this Summary Table with existing and proposed columns filled and all relevant calculations, modeling and information for project review. Include details about all sub-basins and BMPs in the Stormwater Management Report.
- 2) After the project has been built, submit this Summary Table again with As-Built columns filled in and all relevant calculations, modeling and information based on the project record drawings. Include details about all sub-basins and BMPs in the Final Stormwater Management Report.

Project Name:	Hydrologic Soil Group (HSG) Used – A, B, C, or D:
Project Address:	Description of Soil:
Receiving Waterbody:	

	EXISTING	PROPOSED	AS-BUILT
1. IMPERVIOUS AREA SUMMARY	(Acres)	(Acres)	(Acres)
SITE ONLY	(This section must be filled in for all projects.)		
Impervious			
Pervious			
Total Site Area			
Impervious Area Draining to a BMP			
INCLUDES RUN-ON FROM OFF-SITE	(This section must be filled in if off-site stormwater runs onto the site; if none, write "none".)		
Impervious			
Pervious			
Total Site Area			
Impervious Area Draining to a BMP			
2. RATE CONTROL PEAK FLOW SUMMARY *	(Cubic Ft./Second)	(Cubic Ft./Second)	(Cubic Ft./Second)
SITE ONLY	(Only fill in one section for rate control, SITE ONLY or INCLUDES RUN-ON FROM OFF-SITE. If there is not any run-on from off-site, fill in SITE ONLY. If there is run-on from off-site, fill in INCLUDES RUN-ON FROM OFF-SITE. The rate control "no increase" requirement applies only to the site.)		
For 2.8 in. event (2-year)			
For 4.2 in. event (10-year)			
For 7.5 in. event (100-year)			
INCLUDES RUN-ON FROM OFF-SITE	(Only fill in one section for rate control, SITE ONLY or INCLUDES RUN-ON FROM OFF-SITE. If there is not any run-on from off-site, fill in SITE ONLY. If there is run-on from off-site, fill in INCLUDES RUN-ON FROM OFF-SITE. The rate control "no increase" requirement applies only to the site.)		
For 2.8 in. event (2-year)			
For 4.2 in. event (10-year)			
For 7.5 in. event (100-year)			
3. RUNOFF VOLUME SUMMARY *	Acre-Feet	Acre-Feet	Acre-Feet
SITE ONLY	(Only fill in one section for volume summary, SITE ONLY or INCLUDES RUN-ON FROM OFF-SITE. If there is not any run-on from off-site, fill in SITE ONLY. If there is run-on from off-site, fill in INCLUDES RUN-ON FROM OFF-SITE.)		
For 2.8 in. event (2-year)			
For 4.2 in. event (10-year)			
For 7.5 in. event (100-year)			
INCLUDES RUN-ON FROM OFF-SITE	(Only fill in one section for volume summary, SITE ONLY or INCLUDES RUN-ON FROM OFF-SITE. If there is not any run-on from off-site, fill in SITE ONLY. If there is run-on from off-site, fill in INCLUDES RUN-ON FROM OFF-SITE.)		
For 2.8 in. event (2-year)			
For 4.2 in. event (10-year)			
For 7.5 in. event (100-year)			
4. WATER QUALITY SUMMARY *	Removal Efficiency %	Removal Efficiency %	Removal Efficiency %
SITE ONLY	(All projects must calculate TSS removal efficiency. Only projects discharging to a lake, pond or wetland must also calculate for TP.)		
Total Phosphorus (TP) for 1.25", 24-hr event			
Total Suspended Solids (TSS) for 1.25", 24-hr event			
INCLUDES RUN-ON FROM OFF-SITE	(This section is optional – not required.)		
Total Phosphorus (TP) for 1.25", 24-hr event			
Total Suspended Solids (TSS) for 1.25", 24-hr event			

* Use NOAA Atlas 14 events

Stormwater Management Plan Engineer's Certification

(The language below must be included in the Stormwater Management Plan)

I hereby certify to the best of my knowledge, information, and belief that this Post Construction Stormwater Management Plan complies with the rules, regulations, and standards as outlined under Chapter 54, Stormwater Management, Title 3 of the Minneapolis Code of Ordinances dated January 1, 2000. Specifically, the stormwater management facilities detailed in the referenced plan have been constructed to meet the minimum requirements for (check box for all that apply):

- Water quality:** Seventy (70) percent removal of total suspended solids (TSS) from a 1.25-inch storm event AND for a site that discharges to a lake, pond, or wetland; total phosphorus (TP) pollutant load reduction is as specified in City Council Resolution 2000R-042.
- Rate control:** No increase in the peak discharge over existing conditions for the 2-year, 10-year, and 100-year 24-hour storm event, using the NRCS MN MSE3 distribution.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed professional engineer under the laws of the state of Minnesota.

Signature _____ Date _____

Print name _____ MN registration number _____

Final Stormwater Management Report Worksheets (post-construction, required)

GENERAL PROJECT INFORMATION

Project name: _____

Site address: _____

FINAL STORMWATER MANAGEMENT REPORT SUBMITTAL REQUIREMENTS

Final Stormwater Management Report must be submitted within 90 days of project completion

<p>Record drawing(s)—Have you included record drawings utilizing the original approved plans? These should detail the following:</p> <ul style="list-style-type: none"> • The actual elevations shown alongside proposed elevations, with the proposed elevations crossed out (notation must be legible for comparison) • Elevations referenced to the same benchmark datum as the original design plans (noted as such) • The stormwater management device(s) installed (pond, rain garden, etc.) • Any plan changes, duly noted, with the record drawing reflecting the actual construction • Plan views showing the as-constructed location of all BMPs and associated stormwater infrastructure • Cross sections and profiles of each BMP showing all design features, soil profiles, elevations, and seasonal water table • Normal water level, high water level, and overflow routes for all basins, ponds, or channels • Drawings signed by a licensed engineer, architect, or land surveyor, certifying the submittal is a record drawing of the as-constructed site conditions 	YES	NO
<p>Additional submittal items—Have you included the following additional information?</p> <ul style="list-style-type: none"> • Map showing as-built impervious surfaces (e.g., building and permanent structure locations, parking areas, sidewalks) with an updated Stormwater Management Plan Summary Table summarizing the delineated property area, pervious and impervious areas, and impervious areas draining to BMPs (see example table). • Location of any drainage easements—easements must be recorded to preserve major stormwater flow paths, specify maintenance responsibilities, restrict buildings/structures, and prevent any grading, filling, or other activities that obstruct flows. • Manufacturer’s details and specifications for all installed proprietary stormwater devices. 	YES	NO
<p>Updated stormwater modeling</p> <ul style="list-style-type: none"> • Have you included the updated stormwater hydrologic and water quality modeling reflecting as-built conditions? • Have you provided documentation of all hydrologic and water quality model inputs and results (as outlined in Section 4.3.1.4) to aid in model review? • Have you summarized the results of the hydrologic and water quality modeling on the updated Stormwater Management Plan Summary Table (Section 4.4.1)? 	YES	NO

City of Minneapolis Stormwater Management Device Operations and Maintenance

Overview

Title 3, Chapter 54 of the Minneapolis Code of Ordinances provides that all properties in accordance with the approved plan must provide proper maintenance for sustained use.

Inspection of Stormwater Facilities

- Stormwater management devices are subject to annual inspection by the Minneapolis Departments of Public Works and or Regulatory Services.
- All stormwater management devices shall be inspected by the owner or responsible party annually or as specified in the approved plan. Competed self-inspection reports shall be returned to:

Minneapolis Water Resources stormwater@minneapolis.mn.gov
 Attention Stormwater BMP Inspection
 309 2nd Avenue South Room 300
 Minneapolis MN 55401

Operations & Maintenance Plans/Templates

All stormwater devices shall have an approved Operations and Maintenance Plan prior to commencement of construction activities. The approved plan shall be site and BMP specific as well as include the following information:

- Site map clearly detailing:
 - The location of each BMP
 - The areas for inspection (cleanouts, inlets, outlets, sumps, etc.)
 - Contributing areas
 - Emergency overflows if any
- Detail/cross-section of each BMP
- Snow removal or storage plan
- Salt management plan
- Inspection forms for each BMP detailing:
 - Inspection activity (What to look for)
 - Regiment for cleaning (How often)
 - Observations (What did I find)
 - Maintenance actions (What should I do and when)
 - Maintenance required/completed (What did I do)

Once the property has been certified as compliant under Chapter 54, the property owner or their designee can apply for a stormwater utility credit. For properties or connected projects, compliance under chapter 54 is a prerequisite to applying for a stormwater utility credit and is not a guarantee of receiving a credit.

- | | | |
|-----------------------------|-----------------------|-----------------------|
| • Pervious Pavement Example | • Rain Garden Example | • Proprietary Example |
| • Grit Chamber Example | • Stormtech Example | • Example Template |

BMP Operation & Maintenance Inspection Template

The purpose of the inspection process including site inspection, recording the results, and creating the inspection report, is to determine and recommend the maintenance types, activities, and frequencies to restore the BMP’s original design function. The inspection process must lead to a maintenance recommendation including taking no actions if the BMP is found to be in full compliance. Inspection frequency can be modified based on maintenance recommendations.

Property owners may use any BMP inspection forms provided that they are:

- Specific to the site
- Reflect the BMP as it was constructed (no “Typical” depictions)
- Approved by the City as part of the post construction report

You may use this template for developing site, and BMP specific, operations, maintenance, and inspection plans. Examples of BMP specific inspection forms and reporting are provided in the other appendixes, such as:

- | | | |
|--------------------|----------------------------|-----------------------|
| • Wet Ponds | • Rain Garden | • Wet Vault |
| • Detention Basins | • Rock Infiltration Trench | • Dry Detention Basin |
| • Pervious Asphalt | • Sump Manhole | • Proprietary Manhole |

ESSENTIAL COMPONENTS OF TYPICAL INSPECTION FORMS:

- | | |
|--|--|
| <ul style="list-style-type: none"> • Site Map • Property contact form • Detail/cross-section of each BMP • Weather conditions and time of last rainfall (inches) • Inspection Activity (What to look for) • Observations | <ul style="list-style-type: none"> • Projected maintenance equipment and materials needed • Plans for landscaping, buffer & vegetation management (mowing) • Snow removal or storage plan (as required) • Site-specific chloride reduction management plan or addendum • Maintenance recommendations including a timeline (schedule) for preventive and structural maintenance. |
|--|--|

Complete this self-inspection form for each site inspection, and return a copy annually to:

stormwater@minneapolisMN.gov

BMP Type and Practice

Include a site map clearly detailing:

- The location of each BMP
- Curb cuts and forebays
- Contributing areas
- Emergency overflows
- SAFL baffles, screens, or filters
- Pretreatment structures, isolator rows or sumps
- Cleanouts and inspection ports
- Drain tile and any associated piping
- Relevant drainage structures

Label details of relevant structures and features so they correspond with the inspection activities outlined in page 2

BMP ID:	Location:	Inspection Frequency:
Assigned by Public Works	Property Address	To be determined
<p>Description of Device: describe device, how it functions and any details that will be helpful for the inspector and maintenance crew.</p>		
<p>Structure Access: What type of access structure is it, where is it (traffic, boulevard park area, garage, etc.), and any special tools need to access it. (For underground only)</p>		
<p>Notes and Comments: Confined Space required, SAFL BAFFL, weir wall, skimmer plate, back flow preventer, etc. Anything pertinent can be placed her including snow removal/storage plan or salt and vegetation management plan references.</p>		

Site ID <i>(Assigned by Public Works):</i>		BMP Type/Number:		
Inspection Date: / /		Inspector Name:		
Inspection Activity	Observations/Measurements <i>(Filled in by the inspector)</i>	Maintenance	Maint. Required <i>(Yes or No)</i>	Action Required
<i>What to look for?</i> <i>Where to look?</i> <i>What to expect?</i>	<i>Notes</i> <i>Observations</i> <i>Measurements</i> <i>Standing Water</i>	<i>When to clean/provide maintenance?</i> <i>How to maintain or fix?</i> <i>Who to notify if there are problems?</i>		<i>What needs to be done?</i>
				Date Completed: / / Responsible Party:
				Date Completed: / /
				Responsible Party:
				Date Completed: / /
				Responsible Party:
				Date Completed: / /
				Responsible Party: