



## Plan Review Guidance for Stormwater Management Design

For all new and redevelopment projects which disturb 0.25 acres or more of land, *or soil disturbance of less than one-quarter acre that is part of a larger development plan consisting of at least one-quarter acre in area*, the Buffalo Sewer Authority requires stormwater management practices to be implemented. Per Section 7.3.4 of the Buffalo Unified Development Ordinance (“Green Code”), where practicable, stormwater management facilities should utilize Green Infrastructure Best Management Practices (BMPs) in accordance with the hierarchy of preference (see Green Code section 7.3.4A) and in cases where on-site BMPs have been determined to not be feasible, the Buffalo Sewer Authority may consider alternative stormwater management practices to meet water quantity standards, in order of preference.

The tiered hierarchy below outlines the order of preference for stormwater management. All designs must follow the criteria and standards contained in the most recent version of the New York State Stormwater Design Manual.

Preference Hierarchy	Stormwater Management Practices	Additional Criteria
Tier 1	Conservation of Natural Areas	-
Tier 2	Bio-retention /Rain Gardens, Stormwater Planters, Vegetated Swale (bio-swale), Filter Strips, Constructed Wetlands, Porous Pavement	To be used for onsite and off-site GI
Tier 3	Green Roof, Blue Roof, Cisterns	To be used for onsite and off-site GI
Tier 4	Off-site GI (within same CSO basin) from Tiers 2 & 3	Requires Documentation and Approval by BSA On Limiting Factors For The Above Tiers (see chart below)
Tier 5	Subsurface infiltration or underground retention	
Tier 6	Underground detention	

Projects may not be approved for Tiers 4, 5 & 6 practices until documentation is provided for limiting factors that prevent utilizing practices from Tiers 2 & 3.

The following are acceptable limiting factors:

<b>Potential Limiting Factors</b>
Contaminated soils
High groundwater table
Shallow bedrock
Poor infiltration rates (not applicable to Tier 3)
Threat to property or environmental damage

Note: A Stormwater Pollution Prevention Plan (SWPPP) report must be submitted for projects that are tributary to a waterbody or to the Bird Island Wastewater Treatment Plant. The SWPPP report should include a detailed explanation of any limiting factors in the determination of what stormwater management practice will be implemented. Where documentation on limiting factors is provided and acceptable to Buffalo Sewer, additional accommodations to incorporate vegetation on site may be negotiated with Buffalo Sewer on a case-by-case basis.

It may not be feasible to manage 100% of the required stormwater management utilizing only one practice and projects are able to include several practice types from different tiers. For faster review time and approval, submissions should include at least 1 practice from the Tiers 1, 2 or 3.

The plan set must at a minimum include the following:

1. Site Plan / Utility Plan
2. Site Grading Plan
3. Landscape Plan
4. Erosion and Sediment Control Plan

The SWPPP report must include:

- A. *For connections to storm only or storm overflow sewers (0.25 to 0.99 acres of soil disturbance):*
  1. Background information (i.e. Project scope, existing and final site conditions, soil map, etc.). Note any changes from the initial SWPPP and site plan submissions.
  2. Erosion & Sediment Control Plan (E&SC) in conformance with SPDES General Permit (GP-0-15-002) or latest version(see minimum requirements in the Permit)
  3. Site Plan showing the locations of all E&SC practices
  4. Drainage Map (showing capture areas and location(s) of BMPs)
  5. Stormwater Calculations for pre- and post- construction 1-, 10-, and 100- year storm event.
  6. Water Quality Volume (WQv) and Runoff Reduction Volume (RRv) Targets
  7. Post-construction Stormwater Best Management Practices
    - a. *BMP must be in accordance with the Unified Development Ordinance 496-7.3.4 of the City of Buffalo Code. Any deviations from the initial design must be clearly identified. Revised stormwater management calculations must be submitted for review/ approval by the Buffalo Sewer Authority.*

- B. *For connections to storm only or storm overflow sewers (1 acre or larger of soil disturbance):*
1. Same requirements as A.1 – 7 listed above.
  2. SWPPP Municipal Separate Storm Sewer System (MS4) Acceptance Form
  3. Notice of Intent (NOI) signed by owner and SWPPP Preparer Certification
  4. State Historic Preservation Office (SHPO) determination must be included with report.
- C. *For connections to storm relief or combined sewers (0.25 acres or larger of soil disturbance):*
1. Same requirements as A.1 – 4 listed above
  2. Provide stormwater management calculations utilizing USDA TR-55 and the New York State Stormwater Management Design Manual (NYSMDM) demonstrating that post-construction 25-year storm peak flows to the storm relief/ combined sewer system are less than or equal to pre-construction 2-year storm peak flows.
  3. Post-construction Stormwater BMP - see section A.7a above.

In addition, please note that a stormwater management application review fee payable by a check made out to the Buffalo Sewer Authority in the amount of \$50.00/2500 square feet or part thereof of soil disturbance or impervious area being drained, whichever is greater is required.

**Example:** *10,900 sf of disturbance or impervious area/ 2500 sf = 4.36 is rounded to 5.*

*Then, 5 x \$50.00 = \$250.00. Therefore, the fee is \$250.00.*

*(Note: this example is for reference only)*

Please send the check to the Buffalo Sewer Authority office at 65 Niagara Square, City Hall 1038, Buffalo, NY 14202.

Should you have any additional questions regarding the review process or fees, please feel free to contact Regina Harris at (716) 851-4664 ext. 4227 or [rharris@buffalosewer.org](mailto:rharris@buffalosewer.org).