NONPOINT SOURCE PLANNING AND MS4 MAPPING GRANT (2020)

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

Green Infrastructure and Stormwater Retrofit Feasibility Study Outline

Engineering feasibility studies for green infrastructure and stormwater retrofit projects must follow the report outline below. The final report must provide sufficient information to demonstrate that the proposed green infrastructure or stormwater retrofit project is feasible to construct at the selected project location. Based on a design professional's site evaluation, the feasibility study provides the basis and justification for a future proposed design. A feasibility study report may include conceptual designs and infiltration tests. Any conceptual designs must be designed in accordance with the 2015 New York State Stormwater Design Manual and must go above and beyond the water quality volume treatment and/or reduction requirements listed in the SPDES Construction General Permit. For green infrastructure projects, the feasibility study must primarily address the green infrastructure practice(s), even if it is a portion of a larger project.

Required Elements

I. **Cover Page** (project title, owner, prepared by, professional's stamp, and date)

II. **Executive Summary** (Overview of the project's purpose)

III. **Projective Objectives** *(Describe goals for green infrastructure or stormwater retrofit elements. Indicate whether the green infrastructure or stormwater retrofit elements are a portion of a larger project.)*

IV. **Existing Conditions:** Include an analysis of the proposed project site which addresses the following elements:

   a. Current Land Use
   b. Depth to Bedrock
   c. USGS Soil Classification at green infrastructure or stormwater retrofit practice location(s) *(see USDA Web Soil Survey mapping tool)*
   d. Depth to water table at green infrastructure or stormwater retrofit practice location(s)
   e. Discussion of any other site considerations (*wetlands, flood plain elevations, hotspots, brownfield remediation or other potential design issues at the site*)
   f. Results of any boring logs, infiltration tests, or other subsurface investigations.

V. **Existing Conditions Graphic:** A plan or diagram of the existing project site is required. It must include:

   a. Engineer / Landscape Architect name; date and project title
   b. North arrow / legend
   c. Graphical scale
   d. Site features (wetlands, streets, buildings, etc.)
   e. Location map
   f. Site topography
   g. Project location / address (including nearest cross street)
   h. Stormwater flowpath (also consider adjacent sites)
   i. Nearest receiving waterbody
   j. Location relative to the 100-year floodplain
   k. Other site considerations (hotspots, brownfield remediation or other potential design issues at the site)
   l. Location of any available boring logs, infiltration tests, or other subsurface investigations.

VI. **Project Description**

   a. Recommended green infrastructure or stormwater retrofit practice(s): Provide a narrative that explains the proposed project and green infrastructure or stormwater retrofit practices and why they were selected. Refer to the New York State Stormwater Management Design Manual for a catalog of green infrastructure and stormwater retrofit practices.

b. Provide an estimate of the water quality volume to be managed through infiltration, evapotranspiration, and/or use on site. The NYSDEC Runoff Reduction Worksheets may be used as a reference in calculating estimates.

VII. Anticipated Regulatory Approval and Permits *(list all that will apply, e.g., DEC, NYSDOT, etc.)*

VIII. Conceptual Site Plan: A plan or diagram of the project's conceptual design is required. It must include:

a. Engineer / Landscape Architect name; date and project title
b. North arrow / legend
c. Graphical scale (1 "= 10', 20', 30', 40', 50', 60' or 100')
d. Location map
e. Site features (wetlands, nearest waterbody, streets, buildings, etc.)
f. Proposed green infrastructure or stormwater retrofit practice location / layout showing stormwater flowpath (arrows)
g. Estimated drainage area (indicate area(s) to be managed by each practice)
h. Site grading (proposed conditions)
i. Other design considerations

IX. Site Photographs: Photographs that are representative of existing site conditions.