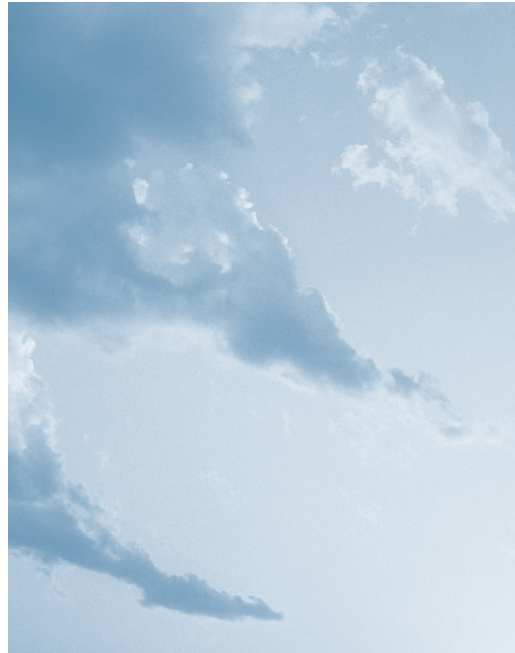


*Appendix D*  
Site Stormwater Management  
Plan Checklist





## 1. Applicant/Site Information

Applicant name, legal address, telephone/fax numbers

Common address and legal description of site

Site locus map

## 2. Project Narrative

Project description and purpose (for existing and proposed conditions)

- *Natural and manmade features at the site, including, at a minimum, wetlands, water-courses, floodplains, and development (roads, buildings, and other structures)*
- *Site topography, drainage patterns, flow paths, and ground cover*
- *Impervious area and runoff coefficient*
- *Site soils as defined by USDA soil surveys including soil names, map unit, erodibility, permeability, depth, texture, and soil structure*
- *Stormwater discharges from the site, including quality and known sources of pollutants and sediment loadings*
- *Critical areas, buffers, and setbacks established by the local, state, and federal regulatory authorities*
- *Water quality classification of on-site and adjacent waterbodies*
- *Identification of any on-site or adjacent waterbodies included on the Connecticut 303(d) list of impaired waters*

### Potential stormwater impacts

- *Potential pollution sources (e.g., erosive soils, steep slopes, vehicle fueling, vehicle washing)*
- *Types of anticipated stormwater pollutants and the relative or calculated load of each pollutant*
- *Summary of calculated pre- and post-development peak flows*
- *Summary of calculated pre- and post-development groundwater recharge*

### Critical on-site resources

- *Wells, aquifers*
- *Wetlands, streams, ponds*
- *Public drinking water supplies*

Critical off-site (adjacent to or downstream of site) resources

- *Neighboring land uses*
- *Wells, aquifers*
- *Wetlands, streams, ponds*
- *Public drinking water supplies*

### Proposed stormwater management practices

- *Source controls and pollution prevention*
- *Alternative site planning and design*
- *Stormwater treatment practices*
- *Flood control and peak runoff attenuation management practices*

### Site plan (for existing and proposed conditions) (see Item 4. below for appropriate format)

- *Topography, drainage patterns, drainage boundaries, and flow paths*
- *Locations of stormwater discharges*
- *Perennial and intermittent streams*
- *USDA soil types*
- *Proposed borehole investigations*
- *Vegetation and proposed limits of clearing and disturbance*
- *Resource protection areas such as wetlands, lakes, ponds, and other setbacks (stream buffers, drinking water well setbacks, septic setbacks, etc.)*
- *Roads, buildings, and other structures*
- *Utilities and easements*
- *Temporary and permanent conveyance systems (grass channels, swales, ditches, storm drains, etc.) including grades, dimensions, and direction of flow*
- *Location of floodplain and floodway limits and relationship of site to upstream and downstream properties and drainage systems*
- *Location, size, maintenance access, and limits of disturbance of proposed structural stormwater management practices (treatment practices, flood control facilities, stormwater diversion structures, etc.)*
- *Final landscaping plans for structural stormwater management practices and site revegetation*

- *Locations of non-structural stormwater management practices (i.e., source controls)*

#### **Construction Schedule**

### **3. Calculations**

#### **Pollutant Reduction**

- *Water Quality Volume (WQV)*
- *Water Quality Flow (WQF)*
- *Pollutant Loads*

#### **Groundwater Recharge**

- *Groundwater Recharge Volume (GRV)*

#### **Runoff Capture (for new stormwater discharges to tidal wetlands)**

- *Runoff Capture Volume*

#### **Peak Flow Control**

- *Hydrologic and hydraulic design calculations (pre- and post-development conditions)*
  - *Description of the design storm frequency, intensity, and duration*
  - *Watershed map with locations of design points and watershed areas (acres) for runoff calculations*
  - *Time of concentration (and associated flow paths)*
  - *Imperviousness of the entire site and each watershed area*
  - *NRCS runoff curve numbers or volumetric runoff coefficients*
  - *Peak runoff rates, volumes, and velocities for each watershed area (24-hour storm)*
    - ◇ *Stream Channel Protection: 2-year frequency (“over-control” of 2-year storm)*
    - ◇ *Conveyance Protection: 10-year frequency*
    - ◇ *Peak Runoff Attenuation: 10-year, 25-year, and 100-year frequency (other as required by local review authority)*
    - ◇ *Emergency Outlet Sizing: safely pass the 100-year frequency or larger storm*
  - *Hydrograph routing calculations*

- *Culvert capacities*
- *Infiltration rates, where applicable*
- *Dam breach analysis, where applicable*
- *Documentation of sources for all computation methods and field test results*
- *Downstream analysis, where detention is proposed*
- *Drainage systems and structures*

### **4. Design Drawings and Specifications**

**Recommended size (no larger than 24” x 36” and no smaller than 8-1/2” x 11”)**

**Recommended scale (maximum scale of 1” = 40’, larger scales up to 1” = 100’ may be used to represent overall site development plans or for conceptual plans)**

**Design details (cross-sections, elevation views, and profiles as necessary)**

#### **Specifications**

- *Construction materials*
- *Stormwater control product designations (if applicable)*
- *Methods of installation*
- *Reference to applicable material and construction standards*

#### **Cover sheet with sheet index**

#### **Title block**

#### **Legend**

#### **North arrow**

**Property boundary of subject property (including parcels, or portions thereof, of abutting land and roadways within one hundred feet of the property boundary)**

**Site locus map (recommended scale 1” = 1,000’) with a north arrow**

**Seals of licensed professionals (original design plans, calculations, and reports)**

#### **Survey plans**

- *Prepared according to the Minimum Standards for Surveys and Maps in Connecticut*
- *The class of survey represented on the plan*
- *Stamped by a professional land surveyor*
- *Depict topography at contour intervals of two feet*

- *The referenced or assumed elevation datum*
- *Two (2) benchmarks on the site within one hundred feet of the proposed construction*
- *Outside limits of disturbances*
- *Plan references*

## 5. Construction Erosion and Sediment Controls

Erosion and sediment control plan that complies with the requirements of the current version of *Connecticut Guidelines for Soil Erosion and Sediment Control*, DEP Bulletin 34.

## 6. Supporting Documents and Studies

Provide other sources of information used in the design of construction and post-construction stormwater controls for the site development, as applicable:

Soil maps, borings/test pits

Infiltration test results

Groundwater impacts for proposed infiltration structures

Reports on wetlands and other surface waters (including available information such as Maximum Contaminant Levels [MCLs], Total Maximum Daily Loads [TMDLs], 303(d) or 305(b) listings, etc.)

Water quality impacts to receiving waters and biological/ecological studies

Flood study/calculations

## 7. Other Required Permits

Evidence of acquisition of all applicable federal, state, and local permits or approvals (e.g., copies of DEP permit registration certificates, DEP Dam Safety Registration certificate for stormwater impoundments, DPH approval letter for stormwater discharges within 100 feet of a watercourse within a public water supply watershed or aquifer protection area, local approval letters, etc.)

## 8. Operation and Maintenance

Detailed inspection and maintenance requirements/tasks

Inspection and maintenance schedules

Parties legally responsible for maintenance (name, address, and telephone number)

Provisions for financing of operation and maintenance activities

As-built plans of completed structures

Letter of compliance from designer

Post-construction documentation to demonstrate compliance with maintenance activities.