

## SAMPLE

### Stormwater Site Plan Review Checklist: Detailed Review

This checklist describes the requirements associated with each of the 10 minimum requirements outlined in the *Stormwater Management Manual for Western Washington, February 2005*. All projects meeting the thresholds in Volume I, Chapter 2, Figures 2.2 and 2.3 are required to prepare one or more stormwater site planning documents for Municipality review. The applicant must demonstrate and document compliance with each applicable requirement through the appropriate stormwater site plan (see Minimum Requirement #1, and the applicable submittals checklist associated with a given project type).

#### **Minimum Requirement #1: Preparation of Stormwater Site Plans. (Volume I, 2.5.1)**

- Confirm the project has submitted each of the following documents where required:
  - a. Permanent Stormwater Control Plan
  - b. Construction Stormwater Pollution Prevention Plan (SWPPP) (aka Erosion and Sediment Control Plan)
  - c. Off-site Analysis
  - d. Construction Plans and Specifications for stormwater facilities.

#### **Minimum Requirement #2: Construction Stormwater Pollution Prevention**

- The Construction SWPPP addresses the 12 Elements of Construction Stormwater Pollution Prevention as detailed in Volume II, Section 3.2. Each of the 12 elements must be considered and included in the Construction SWPPP unless site conditions render the element unnecessary and the exemption from that element is clearly justified in the narrative of the SWPPP. Project applicants must refer to SWMMWW Volume II, Section 3.2 for the full list of applicable requirements. The 12 elements are:
  - 1. Mark clearing limits
  - 2. Establish construction access
  - 3. Control flow rates
  - 4. Install sediment controls
  - 5. Stabilize soils
  - 6. Protect slopes
  - 7. Protect drain inlets
  - 8. Stabilize channels and outlets
  - 9. Control pollutants
  - 10. Control dewatering
  - 11. Maintain BMPs
  - 12. Manage the project.

### Minimum Requirement #3: Source Control of Pollution

**TIP:** MR 3 applies primarily to Commercial and Industrial projects (see Volume I, Section 4.2). If the project is residential, this Minimum Requirement may be skipped.

- All known, available, and reasonable source control BMPs applicable to the project type have been applied. Source control BMPs include operational BMPs and structural source control BMPs outlined in SWMMWW Volume IV (for construction sites, see Volume II).

### Minimum Requirement #4: Preservation of Natural Drainage Systems and Outfalls

- Natural drainage patterns are maintained, and discharges from the project site occur at the natural location, to the maximum extent practicable. The manner by which runoff is discharged from the project site should not cause a significant adverse impact to downstream receiving waters and downgradient properties.
- All stormwater outfalls have necessary energy dissipation.

**TIP:** The municipality may have different requirements for conveyance system sizing and capacity analyses. The information below is excerpted from the SWMMWW and may be relevant if no conveyance system exists at the abutting downstream property line and the natural (existing) discharge is unconcentrated.

- a. If the 100-year recurrence interval peak discharge is less than or equal to 0.2 cubic feet per second under existing conditions and will remain less than or equal to 0.2 cubic feet per second under developed conditions, then the concentrated runoff may be discharged onto a rock pad or to any other system that serves to disperse flows.
- b. If the 100-year recurrence interval peak discharge is less than or equal to 0.5 cubic feet per second under existing conditions and will remain less than or equal to 0.5 cubic feet per second under developed conditions, then the concentrated runoff may be discharged through a dispersal trench or other dispersal system, provided the applicant can demonstrate that there will be no significant adverse impact to downhill properties or drainage systems.
- c. If the 100-year recurrence interval peak discharge is greater than 0.5 cubic feet per second for either existing or developed conditions, or if a significant adverse impact to downgradient properties or drainage systems is likely, then a conveyance system must be provided to convey the concentrated runoff across the downstream properties to an acceptable discharge point (i.e., an enclosed drainage system or open drainage feature where concentrated runoff can be discharged without significant adverse impact).

### Minimum Requirement #5: Onsite Stormwater Management

- Project employs onsite stormwater management BMPs to infiltrate, disperse, and retain stormwater runoff onsite to the maximum extent feasible without causing flooding or erosion impact.
- The following BMPs have been applied to the maximum extent feasible. If not applied, the proponent has documented why the BMPs are not feasible or necessary:
  - a. Non-Pollution Generating Impervious Surfaces (NPGIS):
    - a. Downspout infiltration systems (Volume III, Section 3.1.1)
    - b. Downspout dispersion systems (Volume III, Section 3.1.22)
  - b. Pollution Generating Impervious Surfaces (PGIS):
    - a. Concentrated flow dispersion, BMP T5.11 (Volume V, Section 5.3.1)
    - b. Sheet flow dispersion, BMP T5.12 (Volume V, Section 5.3.1)
  - c. All land disturbed by the project (except for areas covered by impervious surfaces):
    - a. Post-Construction Soil Quality and Depth, BMP T5.13 (Volume V, Section 3.14). Note that there are no feasibility constraints for this required BMP.

### Minimum Requirement #6: Runoff Treatment

Project Threshold: A stormwater treatment facility (or facilities) must be constructed only if:  
Total effective, pollution-generating impervious surface (PGIS) is 5,000 sq ft or more in a Threshold Discharge Area (TDA), or

- a. The total of PGIS surfaces is three-quarters of an acre or more in a TDA and there is a surface discharge in a natural or man-made conveyance system from the site. (Section 2.5.6)
- b. PGIS surfaces that are dispersed in accordance with the dispersion BMPs in Volume V, Section 5.3.1 are not considered effective pollution generating impervious surfaces.

- Calculations have been provided to confirm that the designed facility is in agreement with the facility sizing in the SWMMWW including design storm and design criteria listed in Volume V.
- If the project discharges directly (or, indirectly through a municipal storm sewer system, but **not** through a creek) to one of the following waterways, only Basic Treatment is required:
  - a. *This list will be Municipality specific. See Volume I, Appendix I-C for a list of Basic Treatment Receiving Waters and insert all that apply to your community.*

- Enhanced Treatment<sup>1</sup> is provided for reduction of dissolved metals (Volume I, Section 2.4.6) because the project:
  - a. Discharges to a fish-bearing stream, lake, or to waters or conveyance systems tributary to a fish-bearing stream or lake (excluding basic treatment waters identified above); and
  - b. Is an industrial project site, or
  - c. A commercial project site, or
  - d. A multifamily project site, or
  - e. A high design year average daily traffic road (additional conditions apply, see Volume I, page 4-9).
- Project does not discharge untreated stormwater from pollution-generating impervious surfaces to groundwater. Direct discharge of untreated stormwater from pollution-generating impervious surfaces to groundwater must be prohibited.
- Project provides necessary Phosphorus Treatment.
- Project is a high-use site that provides Oil Treatment.
- Project establishes a maintenance schedule in accordance with SWMMWW Volume V.

**Minimum Requirement #7: Flow Control**

Project Threshold: A flow control facility and/or land management BMPs that will achieve the standard flow control requirement for Western Washington is required if a project's:

- a. Total effective, impervious surface is 10,000 sq ft or more in a Threshold Discharge Area (TDA), or
- b. The total of PGIS surfaces is three-quarters of an acre or more of native vegetation to lawn or landscape, or convert 2.5 acres or more of native vegetation to pasture in a TDA from which there is a surface discharge in a natural or man-made conveyance system, or
- c. The project, **through a combination of effective impervious surfaces and converted pervious surfaces** cause a 0.1 cubic foot per second (cfs) increase in the 100-year flow frequency from a TDA as estimated by the WWHM or other approved model. (Section 2.5.7)

- Verify if the project discharges directly or indirectly through a municipal stormwater system with sufficient capacity (but **not** through a creek) into one of the following flow control-exempt receiving waters. If so, no flow control facilities are required. (Additional restrictions also apply, see Volume I, Section 2.4.7):
  - a. *This list will be Municipality specific. See Volume I, Appendix I-E for a list of Flow Control-Exempt Surface Waters and insert all that apply to your community.*

---

<sup>1</sup> Developments with a mix of land use types shall apply Enhanced Treatment requirements when the runoff from the areas subject to Enhanced Treatment comprise at least 50% of the total runoff within a TDA.

- Calculations confirm that the designed facility is in agreement with the facility sizing in the WWHM.

### **Minimum Requirement #8: Wetlands Protection**

Project applicability: If the project discharges into a wetland, either directly or indirectly through a conveyance system, this MR applies. If not, this MR does not apply.

- The project demonstrates maintenance of hydrologic conditions, hydrophytic vegetation, and substrate characteristics necessary to support existing and designated wetland uses. The hydrologic analysis shall use the existing land cover condition to determine the existing hydrologic conditions unless directed otherwise by a regulatory agency with jurisdiction.

TIP: Consult Volume I, Appendix I-D, “Wetlands and Stormwater Management Guidelines” Guide Sheet 2B when discharging to natural wetlands and wetlands constructed as mitigation.

### **Minimum Requirement #9: Basin/Watershed Planning<sup>2</sup>**

- If a Municipality approved community plan or basin plan exists for the project area, confirm proponent has consulted with the Municipality to determine whether equivalent or more stringent minimum requirements for erosion control, source control, treatment, and O&M, are identified in the basin/watershed plan.

NOTE: All basin plans which change the default standards must be approved by Ecology and adopted by all municipalities in the basin.

### **Minimum Requirement #10: Operation and Maintenance**

- Includes an Operation and Maintenance plan meeting the requirements of Volume I, Section 2.5.10 and Volume V, Section 4.6 for all proposed stormwater facilities and BMPs. Identifies the party (or parties) responsible for maintenance and operation.
- If either Minimum Requirement #6 or #7 is included, includes an Operations and Maintenance Manual.

---

<sup>2</sup> The Manual refers to Basin Plans in Minimum Requirement #9, while Appendix 1 of the Municipal Stormwater Permit refers to Operations and Maintenance in Minimum Requirement #9.