

CHAPTER 2

Post-Construction Stormwater Management Practices

Post-construction stormwater management practices treat stormwater runoff generated over the life of a development after construction is complete. They also attenuate the erosive energy associated with urban stormwater runoff. Structural practices remove pollutants from stormwater runoff through gravitational settling, filtration, chemical, and/or biological processes. Where the soil is suitable, certain practices infiltrate stormwater producing substantial hydrologic benefits and pollutant load reduction. Similarly, runoff reduction practices make use of pervious area in a development to lessen the volume of runoff that reaches a structural practice.

Prior to selecting a post-construction stormwater management structural practice, strive to lessen the hydrologic impact of a development through the site design strategies and resource management practices discussed in Chapter 1. Consider runoff reduction practices to reduce the size and expense of structural practices and other stormwater infrastructure. Then select structural practices to manage and treat the stormwater runoff generated by the development. A treatment train (multiple practices in series) is widely considered as the most complete treatment.

Consider the following principles when selecting post-construction stormwater management practices.

- (1) Practices are not one size fits all. Select a practice based on both fit and need. Certain practices may be better at addressing a particular pollutant expected to be generated.
- (2) Evaluate the cost and viability of both installation and long-term maintenance when selecting a practice. While all practices require maintenance, criteria in this chapter emphasize a lower burden.
- (3) Local stormwater plans and regulations may influence the selection or restrict the use of a particular practice. Many practices are readily adaptable to local flood control regulations. Some practices may receive credit toward community open space, runoff reduction, green infrastructure, or local stormwater fees.
- (4) Individually design each practice for the characteristics of the site and drainage area.

chapter promote effective, long-term performance. With proper operation and maintenance, post-construction stormwater management practices built to the standards presented in the following sub-chapters meet applicable regulatory objectives. Note the terms must or shall reflect the significance of a criterion to the practice's performance and do not necessarily indicate a regulatory requirement.

Runoff Reduction Practices

Impervious Surface Disconnection	2.1
Sheet Flow to Grass Filter or Conservation Area	2.2
Grass Swale	2.3
Green Roof	2.4
Rainwater Harvesting	2.5

Post-Construction Structural Practices

Wet Extended Detention Basin	2.6
Dry Extended Detention Basin	2.7
Extended Detention Constructed Wetland	2.8
Bioretention	2.9
Pervious Pavement	2.10
Infiltration Basin	2.11
Infiltration Trench	2.12
Sand Filter	2.13
Underground Storage Facility	2.14
Other Technologies	2.15

Common Design Standards

Water Quality Volume	2.16
Soil Infiltration Rate	2.17
Water Quality Flow	2.18

Appendices

Design Examples	2.A.1
Non-traditional Development Guidance	2.A.2
Critical Storm Method	2.A.3
Practice Testing Criteria	2.A.4
Adjusting Hydrologic Soil Group for Construction Disturbance	2.A.5

The engineering methods and criteria detailed in this