

17.4.3 Dry Detention Basin Inspection and Maintenance Provisions

17.4.3.1 Blockage of Outlets

Extended detention ponds are designed for the water to exit the pond through the low flow orifice(s), the principal spillway, and the emergency spillway. It is important to check all three outlets for blockage that would impair the pond's water quality and hydraulic functionality.

Low Flow Orifice(s)

Unless an inverted orifice is used, some type of trash guard is to be maintained over the low flow orifice(s) to prevent clogging. When the orifice becomes clogged the water level rises to the principal spillway elevation and the benefits associated with temporary storage and its gradual release are lost. To preserve "extended detention" the low flow orifice should be inspected for blockage **twice a month and after large storms**.

17.4.3.2 Principal and Emergency Spillway

Principal and emergency spillways are designed to safely convey larger than one inch storms that produce runoff which exceed the water quality volume of the BMP. If these spillways are blocked so they do not operate at full capacity, the risk of dam overtopping or other uncontrolled releases may result. To ensure the hydraulic capacity of the spillways, the spillways should be inspected for blockage **twice a month and after large storms**.

SECTION 18: Permeable Pavement Systems

Permeable Paver systems do not count for regulatory credit for water quality because it has been demonstrated that in the Greensboro area the soils are not permeable enough for this systems to work properly. However, exemptions can be made as stated on section 18.2.2b of the State BMP Manual.

Porous turf used with modern reinforcements installed strictly in accordance with the manufactures guidelines has application for infrequent uses that allow the grass time to regenerate between events. No other permeable pavement systems receive credit as non-built upon area or as percent managed grass.

SECTION 19: Rooftop Runoff Management

19.1 General Characteristics and Purpose

Although rooftop runoff management systems are currently not extensively used within the City of Greensboro, their use is encouraged. The design of such system shall be in accordance with Chapter 19 of the State BMP Manual.

19.2 Meeting Regulatory Requirements

Rooftop runoff management systems designed and built in accordance with the State BMP Manual are eligible to receive a Stormwater Utility Fee credit.

19.5 Maintenance

An inspection and maintenance plan as outlined in Section 19.5 of the State BMP Manual shall be submitted and approved (including inspection schedules and guidelines) prior to plan approval. The property owner must perform the required inspection annually and the inspection report must be submitted to the Stormwater Management Division upon request.

SECTION 20: Proprietary Systems

20.1 General Characteristics and Purpose

The need for urban BMPs that are more efficient in pollutant removal and present less impact to development has spawned the introduction of innovative stormwater BMP technologies. These technologies usually combine the processes of settling, filtration, and various biological processes into one controlled system housed in a modular unit. By combining different processes, these BMPs can be designed to focus on removing many different type pollutants and higher concentrations of these pollutants than conventional structural BMPs.

Proprietary stormwater treatment facilities apparently possess several beneficial attributes which make these BMPs a potential viable solution for future use in this area. For example, units can be usually be placed almost anywhere on a site where it can receive concentrated flows, such as from a storm drainage structure. Also, many of the innovative proprietary BMPs are relatively safe because the stormwater is treated inside the unit, and is not open to the environment like a wet detention pond or Stormwater wetland. Another benefit is that only minimal on-site construction is necessary since the units are usually assembled before they reach the site.

20.2 Meeting Regulatory Requirements

Proprietary BMPs have the potential to meet the quality control requirements for water-supply watershed protection provided their installation, operation and maintenance are closely monitored.

Proprietary systems proposed to treat runoff within the City of Greensboro water-supply watersheds must meet State requirements as listed in Chapter 20 of the State BMP Manual. This includes applying for and receiving a Preliminary Evaluation Period (PEP) permit from the Division of Water Quality. Through the PEP Program the Division of Water Quality determines the pollutant removal credit for the targeted pollutants.

Proprietary systems approved by the State for installation with the City of Greensboro must be accompanied by an operation, inspection and maintenance plan.

For proprietary systems used to meet City regulations, a 20' wide access easement will be required from the public street right-of-way to the system's DMUE. A Drainage, Maintenance and Utility Easement (DMUE) shall be placed over the system and extend 15' beyond its outer perimeter.