

POST CONSTRUCTION RUN-OFF CONTROL
TECHNICAL STANDARDS
STRUCTURAL AND NON-STRUCTURAL BEST MANAGEMENT PRACTICES
GUIDANCE DOCUMENT
VERSION 2.0

Prepared by
City of Memphis
Division of Public Works

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1.0 INTRODUCTION

The City of Memphis has been issued an NPDES storm water permit by the Tennessee Department of Environment and Conservation (TDEC). This permit requires the City to implement a variety of programs to identify, eliminate, and prevent the discharge of pollutants into the storm drain system flowing through the City. On March 14, 2005, local engineers and developers were notified via letter that Post-Construction Best Management Practices (BMPs) will be required for new developments and significant redevelopments. A start-date of September 1, 2005 was established for the City to begin receiving these plan submittals.

Version 1.0 of the *Post Construction Run-Off Control, Technical Standards, Structural and Non-Structural Best Management Practices, Guidance Document* (Guidance Document) was issued on September 6, 2005 to provide interim guidance for the design, installation, and operation and maintenance of facilities that employ PCRC. On May 1, 2006, the City implemented a monthly storm water fee based on impervious area for all properties within the City of Memphis. A fee adjustment and credit manual was issued to allow storm water customers to obtain credits against the fee based on on-site activities. In early 2007, a Best Management Practices Manual including both water quality and quantity was finalized and made available on line at www.stormwatermatters.com.

Version 2.0, which is being issued herein, includes more specific requirements which were developed during the last 18 months, including information related to storm water fee assessment. As previously noted, this an evolving document and will be modified/revised with more specific design, installation, operation and maintenance standards as the City gains more experience in this area and to reflect changes in problem oriented priorities, permit conditions, and environmental regulations.

This document will be made available at www.cityofmemphis.org and at www.stormwatermatters.com. It is the responsibility of the design engineer to obtain the most current version of this document. The design engineer is encouraged to check both locations as well as to contact the Storm Water Program Office at (901) 576-4349 to obtain the most current version of this document.

PCRC shall consist of structural and/or non-structural BMPs that shall be site specific and based on problem oriented priorities as determined by the City of Memphis Division of Public Works. BMPs shall be developed by the design engineer to remove contaminants from storm water to the maximum extent practical (MEP). MEP is a technology-based discharge standard established for Municipal Separate Storm Sewer Systems (MS4) required by §402(b) of the Clean Water Act. Installation, operation and maintenance procedures are required as part of the PCRC Plan submittals. The City of Memphis Division of Public Works is the approval authority for PCRC Plan submittals. Changes in the PCRC Plan may be required based on the review of the plan performed by the City. In addition, supporting data/supplemental information may be required.

A PCRC Plan submittal is required for all new private developments, and re-developments that are submitted to the Office of Land Development for approval, City-related projects, and Memphis City School projects, that discharge into the MS4 with the exception of linear projects (i.e. road widening) and residential developments without storm water detention. The PCRC Plan shall be signed and sealed by a Tennessee Registered Professional Engineer.

2.0 PROBLEM ORIENTED PRIORITIES

As stated in the March 14, 2005 letter, pollutant parameters to be addressed by all submitted PCRC Plans shall include the following for all sites within the City of Memphis:

- Litter
- Visible pollutants, such as sand, soil and grit that would discolor runoff
- Oil and other vehicle fluids
- Parameters listed in the TDEC 303(d) list for the water bodies into which the development discharges and for which the development could be a reasonable source.

3.0 PCRC PLAN SUBMITTALS

The PCRC Plan submittal shall be added as a new sheet to the plan submittal currently required by the City of Memphis Division of Engineering. The PCRC Plan shall generally be a modified version of the Grading and Drainage Plan presently being submitted. It shall include proposed surface contours, arrows showing drainage directions, and the location of structural controls. The PCRC Plan shall have an information table providing the following information:

STORM WATER INFORMATION TABLE

Item	Description
Parcel ID(s)	(property identification number from property register)
Total Site Area	(in acres)
Impervious Area	(in square feet)
Expected Hot Spots	(list here)
Structural BMPs	(list here)
O&M requirements for structural BMPs	(list here)
Non-structural BMPs	(list here)
Entity responsible for BMP implementation	(contact name, address, and phone number)
Basin Name	(Wolf, Loosahatchie, Nonconnah, and Mississippi)
Sub-basin	(as is currently used on Grading & Drainage Plans)

Structural BMPs shall include detention/retention ponds and water quality units. If drainage from the property goes to a development-wide detention basin, then a statement to this effect shall be made on the PCRC Plan. Non-structural BMPs shall include street sweeping, employee-training, and material/chemical/waste handling practices. The PCRC Plan review performed by the City will not cover non-storm water quality elements possibly related to the design such as load-bearing capacity, flooding potential, etc.

Expected “hot spots” shall be listed on the PCRC Plan. “Hot Spots” shall include, as applicable, the following activities: power washing, trash/food waste dumpster operation, commercial fuel dispensing, and food grease storage/disposal. BMPs to address these hot spots are available in the Best Management Practices Manual at www.stormwatermatters.com.

The following is a list of the minimum required information that shall be required for all PCRC Plan submittals:

1. Intended use of the development (*e.g.* single family residential, office park, *etc.*)
2. A vicinity map with the following information:
 - site location and outline of the site boundaries;
 - outline of any upstream drainage basins that drain across the site; and
 - markings indicating general flow path from the site to the nearest body of water.
3. Grading and Drainage Plan showing storm water flow direction and BMP locations.
4. “Storm Water Information Table” with content as described above
5. Details showing unique design elements.
6. Technical references (*e.g.* ASTM, ASCE reports, WEF Design Manuals, *etc.*)

The City of Memphis Division of Public Works will review and approve these plans. If you have any questions, please call (901) 576-4349.