

Appendix G

Resources for Design of Wet & Dry Ponds

The West Virginia Stormwater Management and Design Guidance Manual does not contain specifications for wet ponds and dry ponds (including extended detention ponds). This is because, while these ponds provide storage and peak rate control to meet local stormwater detention or flood control requirements, they do not provide substantial reductions for runoff volume on an average annual basis. Therefore, they are not advised as a stormwater BMP to meet the West Virginia MS4 permit requirement to reduce the first 1-inch of runoff.

Several other practices (e.g. stormwater wetlands, filtering devices) are also not known to reduce runoff volumes on an average annual basis, but are included in the Manual because of their pollutant removal capabilities. Therefore, these practices may be useful as part of a treatment train in watersheds that must account for pollutant reductions (for instance, to meet Total Maximum Daily Load requirements). It should be noted that wet pond design features can be incorporated into a stormwater wetland design. However, the specification (4.2.11) does not include the standard information on impounding structures and spillways.

Recognizing that wet and dry ponds may be useful or necessary in an overall stormwater design that must meet stormwater detention or flood control requirements, the following are design references for these ponds that are fairly recent and comprehensive.

West Virginia Erosion and Sediment Control Best Management Practice Manual (2006 – sediment basins and stormwater management ponds)
http://www.dep.wv.gov/WWE/PROGRAMS/STORMWATER/CSW/Pages/ESC_BMP.aspx

Virginia Stormwater BMP Clearinghouse (updated 2011)
<http://vwrrc.vt.edu/swc/NonProprietaryBMPs.html>

Maryland Stormwater Design Manual (2000; revised 2009)
http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Pages/Programs/WaterPrograms/SedimentandStormwater/stormwater_design/index.aspx

Pennsylvania Stormwater Best Management Practices Manual (2006)

<http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-8305>

Note: State highway and drainage manuals would also provide good design resources.