



NOTICE



Consultants, Builders and Developers

Notice #2025-07-25

July 25, 2025

Topic: SWMM Submodel Additional Guidance

Effective: Immediately

The Public Works Stormwater Engineering Center (PW-SWEC) has released additional guidance titled “Updating a Storm Water Management Model (SWMM) Submodel”. This document serves as a clarifying document to address common questions and recurring issues in submitted submodels, improving clarity around design expectations prior to review. This is intended to reduce reviewer comments, minimize the number of review cycles, and increase consistency and predictability in the submodel update process. This process supports the City’s broader goal of maintaining accurate and functional stormwater infrastructure models for planning, design, and compliance with the Public Works Design Standards Manual (PWDSM).

This additional guidance does not cover every modeling scenario but focuses on the essential updates commonly required during the design phase of both private and capital improvement projects, ensuring accuracy and consistency.

This additional guidance document will be included with all submodels, and a copy may also be provided or emailed to consultants upon request.

Building 3, Municipal Center
2403 Courthouse Drive, Virginia Beach, VA 23456-9101
757-385-4621



NOTICE



Overall Objectives

- **Ensure Modeling Consistency Across Projects:** Standardize the update process for submodels to reflect surveyed site conditions and proposed improvements, preserving compatibility with the City's master SWMM model.
- **Maintain Hydrologic Integrity:** Enable accurate simulation of stormwater runoff behavior using refined subcatchment delineation, land use, and infiltration data.
- **Support Effective Review and PWDSM Compliance:** Provide a clear and transparent methodology for documenting model updates, facilitating streamlined review by PW-SWEC and DSC Engineering Staff.

Updates

- **Uniform subcatchments less than 0.5 acres:** Only one representative flow path is required.
- **Non-uniform subcatchments and subcatchments 0.5 acres and larger:** Three flow paths are required.
- **Clarifies common questions and reviewer comments** by providing additional detail and examples.

The SWMM Submodel Update Guide provides an essential structure for integrating real-world design and survey data into Virginia Beach's stormwater models. This effort ensures the City's drainage systems remain robust, reflective of current land use and infrastructure, and prepared to handle both development pressures and environmental challenges.

By following this additional guidance, engineers and reviewers can achieve a higher standard of model reliability and PWDSM compliance, which improves the City's ability to manage stormwater in a dynamic coastal environment.

For More Information, Please Contact:

PW Stormwater Engineering Center – SWECTS@VBgov.com | (757) 385-4131

Building 3, Municipal Center
2403 Courthouse Drive, Virginia Beach, VA 23456-9101
757-385-4621 | Planning.VirginiaBeach.gov