

STORMWATER MASTER PLANNING

What is stormwater master planning?

Stormwater master planning refers to the development of a comprehensive plan, which is typically initiated by a governing body (local, city, state); to identify and characterize the key components that must be implemented to protect the watershed against stormwater related challenges. The type of planning may vary based on the setting, the level of protection desired, and the amount of pre-existing information available for the watershed. Planning may be at a small or large landscape scale but would typically be watershed-based, even if the planning is being applied to an area described by political rather than hydrological boundaries. The end result may be a watershed plan, an ordinance, a site design or a stormwater Best Management Practice (BMP) implementation plan. Site reconnaissance, mapping, plan writing, public/stakeholder meetings, and the drafting of legislation are all part of the process to facilitate compliance with regulatory requirements.

Why is stormwater master planning important?



In addition to protecting and improving water quality, stormwater master planning also helps eliminate safety hazards like stormwater and sediment sheeting across roads.

Stormwater master plans address potential flooding and nonpoint source pollution impacts of an existing or proposed stormwater management system to meet increasing demands for additional stormwater capacity or to improve water quality. Increased capacity stems from increases in stormwater runoff volume caused by rapid land development (increase in impervious surfaces). Such planning helps to mitigate potential damage to property, infrastructure, and ensure public safety and health.

Stormwater planning is an important tool in solving water quality problems and protecting private property rights. It provides a roadmap or implementation guideline to help achieve these goals. Stormwater planning activities are also often undertaken by non-political entities with an interest in pursuing water quality or land protection goals. The specifics of implementation activities depend on the purpose and scale of the activity.

Are there disadvantages to stormwater master planning?

Stormwater planning requires a high level of expertise in both technical and political matters, and involve detailed analyses. Stormwater master planning can be time intensive and costly, and is often times part of an adaptive management approach that seeks to solve stormwater issues with limited resources; compromises must always be made.

Resources for more information about stormwater master planning:

Center for Watershed Protection

Model Ordinances

http://www.cwp.org/Resource_Library/Model_Ordinances/index.htm

Stormwater Planning

http://www.cwp.org/Resource_Library/Controlling_Runoff_and_Discharges/sm.htm#pc

Urban Subwatershed Restoration Manual (Retrofit Manual also available)

<http://www.cwp.org/Store/usrm.htm>

North Carolina Division of Water Quality

Stormwater Runoff and Nonpoint Source Pollution

<http://h2o.enr.state.nc.us/Stormwater.html>

Universal Stormwater Management Program (Model Ordinance)

<http://h2o.enr.state.nc.us/su/usmp.htm>

Phase II Stormwater Program

http://h2o.enr.state.nc.us/su/NPDES_Phase_II_Stormwater_Program.htm

North Carolina State University

How to do Phase II

<http://www.bae.ncsu.edu/topic/phase2/index.htm>

United States Environmental Protection Agency (EPA)

Stormwater Program

http://cfpub1.epa.gov/npdes/home.cfm?program_id=6