Stormwater Regulations Fact Sheet #1

Components of the Regulations

There are four main components of the Regulations: Nonstructural Site Design, Water Quality, Channel Protection, and Flood Control. All projects with more than 15,000 sq ft of earth disturbance must comply with the water quality and nonstructural site design requirements. All new development projects must comply with all four of the components. Some redevelopment projects may be exempt from the channel protection and flood control requirements. To determine your project's eligibility for these exemptions refer to Fact Sheet #2 or "Section 2: Applicability" of the Philadelphia Stormwater Management Guidance Manual (Manual).

Non-Structural Site Design Requirement

Effective and innovative non-structural site design practices assist the developer in meeting stormwater requirements while protecting existing site features, disturbing the smallest area possible, and minimizing impervious cover. Numerous tools and site planning techniques are available to aid the developer in achieving a 20% reduction in impervious cover for redevelopment projects. The approaches for integrating comprehensive stormwater management into overall site design are presented in "Section 6: Utilizing Existing Site Features" of the Manual.

Water Quality Requirement

All development projects are required to manage the first inch of stormwater runoff from all directly connected impervious area (DCIA) within the limits of earth disturbance. This volume must be infiltrated unless infiltration is determined to be infeasible on the site due to contamination, subsurface instability, high groundwater table, shallow bed rock, or poor infiltration rates. If infiltration is infeasible, in a combined sewer area, a minimum of 20% of the Water Quality Volume must be routed through a PWD-approved volume reducing stormwater management practice (SMP). In addition, the remaining volume must be detained and released at a rate no greater than 0.24 cfs/acre. In a separate sewer area, the entire Water Quality Volume must be routed through a PWD-approved volume reducing SMP.

Channel Protection Requirement

All new development and some redevelopment projects are required to detain runoff from DCIA for the one-year 24-hour NRCS Type II storm so that the peak rate of discharge does not exceed 0.24 cfs/acre of DCIA. The Water Quality requirement and the Channel Protection requirement are not additive. Therefore, management of the water quality requirement might reduce the storage volume required to meet the Channel Protection requirement. It is often be possible to meet these two requirements in the same stormwater management practice or in a train of linked stormwater management practices.

Flood Control Requirement

All new development and some redevelopment projects are subject to the flood control requirements. The level of flood control required depends on the flood management district where the project is located. In general, peak rates of runoff at the post-development condition may not exceed those from the pre-development condition. As Act-167 planning programs are completed for Philadelphia's watersheds, new Flood Management Districts will be listed in the Regulations and Manual which will more accurately reflect the level of flood protection needed in localized settings. Flood Management Districts can be found in Appendix D of the Manual. Redevelopment projects, however, can be exempt from Flood Control requirements by reducing DCIA within the limits of earth disturbance by 20% between the pre-development and post-development conditions.