

Stormwater and Smart Growth

NACWA

Stormwater Management Committee Meeting

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Impacts of Development and Traditional Stormwater Management

- Increases in development and the creation of impervious surfaces has resulted in major pollutant loading and increased volume/ velocity of stormwater flows to receiving waters
- Traditional stormwater practices have not adequately protected receiving waters both in terms of channel stability and the biotic integrity of the waterbody
- Scope of federal programs excludes many discharges



New Approach: Preserve and Restore Hydrology

Use green infrastructure practices which mimic natural processes to manage stormwater on-site

- Infiltrate and recharge
- Evapotranspirate
- Harvest and reuse



Rulemaking Considerations

- Prevent further degradation – should discharges from new and redevelopment mimic natural hydrology?
- Restore waterbodies - should discharges from existing development be retrofited?
- Should the scope of federal regulations be expanded?

Current Stormwater Regulations

- CWA Section 402 directed EPA to regulate stormwater discharges (1987)
- Phase I (1990)
 - Medium and large Municipal Separate Storm Sewer System (MS4) (over 100,000 people)
 - Industrial activity (includes construction over 5 acres)
 - Established permit application requirements
- EPA used designation authority under 402(p)(6) to issue Phase II regulations
- Phase II (1999)
 - Construction sites (1-5 acres)
 - Established six minimum measures
 - Established residual designation authority
 - Smaller MS4s in “urbanized areas”

Current Phase II MS4 coverage based on urbanized areas



- Only covers 2% of total U.S. land area, much development occurs outside of the urbanized area
 - Some states have expanded this coverage

Challenges with Current Program

- Permits require MS4s to have a program for discharges from new and redevelopment, but no specific standards, leading to inconsistent and often weak requirements
- No stormwater requirements for discharges from new and redevelopment not covered by an MS4 permit
 - These discharges can be designated by permitting authority on case-by-case basis, but burdensome process
- Limited coverage under the MS4 program

Options for Expanding MS4 Program

No decisions have been made

- Use 2010 urbanized Census definition which may include impervious cover criteria
- Expand to entire MS4 service area within operator's jurisdiction if part of jurisdiction is within urbanized area
- Define as Urbanized Area + Urban Cluster (Census definitions)
- Define as Urbanized area + Metropolitan Planning Area (MPA) projected development (FHA definition)
- Determine based on population criteria or impervious surface criteria or a combination of both
- Use Metropolitan Statistical Area (OMB/Census definition). Could allow states to exclude areas.
- Expand to include all discharges within a watershed that contains an Urbanized Area
- Include all MS4s in the U.S., except for those that States exempt
- Require States to decide based on specified criteria

Ideas for Standards for New and Redevelopment

- No decisions have been made
- Could require on-site stormwater controls, such that post-development hydrology mimics pre-development hydrology for discharges from sites of a specific size
 - Some municipalities and states have already established such requirements
- Could present options, for example:
 - On-site retention of specific size storm or a limit on amount of effective impervious area
 - Site-specific calculators to determine predevelopment hydrology
 - State/regional standards to reflect local circumstances
- Need flexibility to account for local variability, site constraints, and water rights laws

One Approach

No decisions have been made

1. Could designate under 402(p)(6) discharges from new and redevelopment sites of a certain size
2. Implementation
 - A. Discharges to an MS4 would comply with MS4 permit
 - B. Other discharges (not to the MS4) could be subject to a federal/state standard
 - Could be directly applicable (stand alone rule), through a permit or another mechanism
 - These discharges would not be considered MS4s

Retrofit Existing Discharges

Issue

- Stormwater discharges from existing developed areas is a significant contributor to water quality impairment
- Some MS4 permits and CSO cities already implement retrofit practices that infiltrate or otherwise retain stormwater
- Considerable cost constraints and potential benefits of retrofitting for MS4s

Approach

- No decisions have been made
- Evaluate retrofit options for MS4s:
 - o Retrofit plan
 - Large cities
 - Watersheds of concern
 - o Long implementation time frame

Next Steps

- Information Collection Requests
 - Publish again for public comment
 - Send questionnaires out in the summer
- Site visits in the May- September timeframe
- Propose rule in late summer 2011