Perspectives from the Nation's Clean Water Utilities

Alexandra Dapolito Dunn
General Counsel
Cynthia A. Finley, Ph.D.
Director of Regulatory Affairs

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NACWA's Members

- Nearly 300 publicly owned treatment works (POTWs)
- Majority of nation's sewered population
- Combined or separate sewer systems
- Many with municipal separate storm sewer (MS4) responsibility

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A Significant Environmental Challenge

- The need to reduce – and ideally eliminate – adverse impacts on water quality from MS4s
- Point sources (including MS4s) under increasing scrutiny as noncompliance with water quality goals increases

Recommendations

1. Understand why numeric effluent limitations on MS4 discharges are not a panacea
2. Promote mechanisms for measuring the benefits of, and fostering, innovative MS4 programs
3. Recognize the ultimate water quality value of a watershed approach to MS4 control

Numeric Effluent Limitations Not Required Under Clean Water Act

- CWA § 402(p)(3)(B) for MS4s does not reference CWA § 301
  - MS4 permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable [MEP], including management practices [BMPs], control techniques and systems, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants."
- Compare CWA § 402(p)(3)(A) for industrial stormwater discharges
  - Requires permits for discharges associated with industrial activity to meet all applicable provisions of § 1311 (CWA § 301), thus requiring both water-quality based and technology-based limits on the effluent

Legal Challenges Re: Numerics

- 1999 *Defenders of Wildlife v. Browner* (191 F.3d 1159) (court held that the statutory language of § 402(p)(3)(B) unambiguously shows that MS4 discharges are *not* required to achieve strict compliance with water quality standards)
- Post-*Defenders*, EPA's Environmental Appeals Board (EAB) has maintained that MS4 permits must ensure compliance with water quality standards – but they can so through BMPs rather than numeric effluent limitations
- Some states have embraced *Defenders* more effectively (e.g., MN); but see Los Angeles County (facing a TMDL-derived wet-weather numeric bacteria limit for MS4 discharges—even with implementation over long time period, compliance will be elusive)

BMPs vs. Numerics

- BMPs recognize:
  - The nature of an MS4 discharge can vary greatly depending on a number of factors
    - Amount of rainfall
    - Time that has elapsed since the previous rainfall
    - Season of the year
    - Kinds of substances on impervious surfaces washed into the MS4
  - Flow level, pollutant type, and concentrations vary from event to event
  - The difficulty of ensuring zero unauthorized discharges into the system
- BMPs are flexible

Promote Innovation

What a difference some green can make….

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Promote Innovation: Oregon MS4 Permits

- Contain “benchmark” numbers based on applicable water quality standards and existing TMDL values. “Benchmarks”:
  - Do not represent numeric limits per se
  - Support an adaptive management process
  - Provide easier interpretation of monitoring results and assessment of BMP efficiency

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Promote Innovation: Metropolitan Water Reclamation District of Greater Chicago (MWRDGC)

- Partnership with The Wetlands Initiative to implement “nutrient farming” in areas downstream of MWRDGC’s discharge locations (www.wetlands-initiative.org)
- Creation of watershed planning councils network which bring together local communities in the different watersheds served by the district to talk about various storm water issues and set up effective stormwater management plans

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Promote Innovation: Milwaukee Metropolitan Sewerage District (MMSD)

- "Greenseams" – MMSD purchases:
  - undeveloped, privately owned properties in areas expected to have major growth in next 20 years
  - open space along streams, shorelines, and wetlands
- Protects land that contains water absorbing soils and can help limit wet weather flow (www.mmsd.com/floodmanagement/greenseams.cfm)
- Land owned & managed by a local community or land trust & subject to a conservation easement held by MMSD
- "Rain barrel" program

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Promote Innovation

- Independence (MO) Water Pollution Control Department
  - Constructed a new wastewater treatment facility with a “green roof” to help combat stormwater runoff
  - New City Ordinance to regulate development and land uses adjacent to streams (Stream Buffer and Setback Regulations)
- City of Dallas under 2006 enforcement order will spend over $4.7 million on stormwater program
  - to increase SW staff to 36; inspect 500 pipes/year, 500 industrial facilities/year, & large construction sites every 2 weeks; prepare EMS for 12 city-run facilities w/third-party auditor review
- City of Los Angeles, $3 billion plan to upgrade stormwater system
  - Plan aims to improve the water quality of the discharge
  - Reduce volume of water entering the system
  - Will turn vacant lots and abandoned alleys into green space

STORMWATER PROGRAM
CITY OF LOS ANGELES

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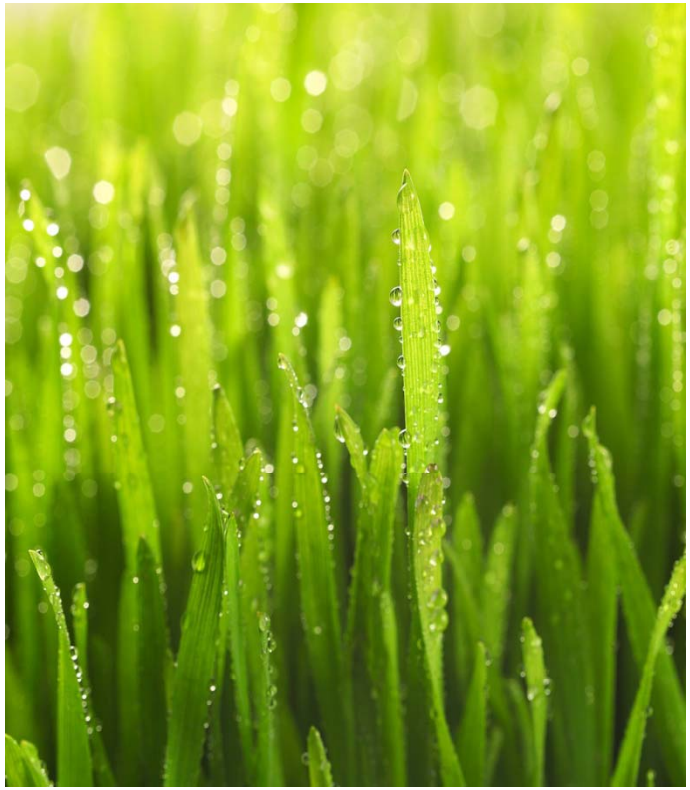
Watershed Approach

- Addressing stormwater means challenging traditional “silo” thinking because stormwater management responsibilities may fall under an independent municipal jurisdiction
- Requires new partnerships
- Much more than an ‘end of pipe’ issue
- Continued population growth will increase stormwater challenges
- Need to integrate stormwater initiatives and community planning (i.e., smart growth, urban growth boundaries)
- Efforts to keep water ‘in place’ can be more successful than typical approach of collecting & transporting for treatment/discharge elsewhere
- Important to connect state and federal departments of transportation

Watershed Approach: Chespeake Bay Region

- Prince George's County: low impact development
- Anne Arundel County: new stormwater regulation uses non-structural controls use to the MEP before structural
- Town of Warsaw & Stafford County, VA: rewrote stormwater regs
- www.lowimpactdevelopment.org



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Watershed Approach: Kansas City, MO

- 320 square miles of land area, 35 discreet watersheds, and a stormwater master plan for them
- By integrating stormwater into a CSO long-term control plan, Kansas City has found a tremendous overlap and will probably realize real gains on both sites because of joint management
- Essential to include the community in its broadest sense (public works, water utilities, power, NGO and citizen groups)
- 10,000 Rain Gardens—stresses the importance of a comprehensive public education plan to help citizens become actively engaged as part of the solution

10,000 Rain GardenS
www.RainKC.com

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Watershed Approach: Clean Water Services, OR

- Tualatin River Watershed
- 4 wastewater facilities and stormwater
- Allows point / non-point trading
- http://www.cleanwaterservices.org/content/documents/Permit/Watershed-based%20Permit.pdf

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Contact NACWA

1816 Jefferson Place, NW

Washington DC 20036

www.nacwa.org

202-833-2672

Alexandra Dunn: adunn@nacwa.org

Cynthia Finley: cfinley@nacwa.org

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