

## Summit Highlights

### **About the Summit- Reinvest/ Rebuild/Revive**



- Held on Tuesday, April 16<sup>th</sup> 10am-12pm EST in Washington, DC at the Ronald Reagan Building and International Trade Center
- Hosted by the Water for Jobs partnership which consists of 19 National Partners and 35 Water Environment Federation Member Associations



"This partnership represents a new era of effective collaboration in our sector – we all share the same passion and vision and we have now charted the course to work together to create national awareness of the value of water and the need to make smart and sustainable investments in our infrastructure." -Cordell Samuels, WEF President

"Today local government and local ratepayers bear approximately 98% of the cost of clean and safe water infrastructure investment. The municipalities and private companies tasked with complying with the Clean Water Act are virtually alone in creating jobs." -Ken Kirk, Executive Director, NACWA





"Much of the U.S. infrastructure was built more than a century ago and currently around 10% of these systems are at the end of their service life. If not addressed by 2020, this number could rise to 44%." –John R. Bigelow, Sr. Vice President of Business Services, American Water (Moderator)



"When discussing the ASCE 2013 Report Card for America's Infrastructure, "[the D grade] reflects that infrastructure is poor or at risk, [and] we have a real challenge." -Brian T. Pallasch, CAE, Managing Director of Government Relations & Infrastructure Initiatives, American Society of Civil Engineers (Panelist)

"Without attention, failing infrastructure could result in more disruptions of service, threats to public health, the economy, the environment and quality of life. Rather than continuing to borrow from the future to fix the problems of today. We must run toward the problem and work together to find solutions." When asked how many jobs water creates, he stated, "all of them." -George Hawkins, General Manager, DC Water (Panelist)

"Investment in water and wastewater infrastructure has a larger positive economic impact on the U.S. economy than do other types of public infrastructure investment such as those in transportation and energy." -George Schink, Ph.D. of Navigant Economics (Panelist)





*"Failure is not an option, [we need water to survive] and a solid plan going forward is needed."* **-Howard Neukrug, Commissioner of the Philadelphia Water Department (Panelist)** 

"It took an earthquake to gain his community's attention but it shouldn't take something that dramatic to expose our reliance on this precious resource." -Harlan Kelly, Jr., General Manager, San Francisco Public Utilities Commission (Panelist)









"It's a matter of tapping into reality by looking at what people value and showing how that connects to water." -Carter Strickland, Commissioner of the New York City Department of Environmental Protection (Panelist)

"I know that you join with me in the belief that great communities need and deserve great water infrastructure and great water quality. One cannot exist without the other." –Karen Pallansch, CEO, Alexandria Renew Enterprises

### Watch the Archive Recording of the Summit!



#### http://www.windrosemedia.com/windstream/wef/

## **Twitter Engagement**

Official Twitter Handle for Water for Jobs Campaign: @Waters4WEF



### **Official Hashtag for Summit: #W4JSummit**

- 83 Total tweets; 128 retweets
- 93,744 Potential impressions
- 34 Mentions
- Grew 17 new followers today
- 11 Retweets
- 9077 Impressions
- 5 Retweets
- 9072 impressions



**Popular tweet:** Great communities need & deserve great water infrastructure & quality, one cannot exist w/o the other K. Pallansch @AlexRenewCEO **#W4JSummit** 

**Popular tweet:** @EPAgov estimates over the next 20yrs. \$335B needed for drinking water infra, \$298B needed for #wastewater infra (total 638B) **#W4JSummit** 



### Summit in the Media











#### NATIONAL WATER INFRASTRUCTURE SUMMIT APRIL 16, 2013 RONALD REAGAN BUILDING AND INTERNATIONAL TRADE CENTER



### WATER PUTS AMERICA TO WORK

## Updates on Stormwater Issues and Activities

### Seth Brown, P.E. WEF Stormwater Program and Policy Manager WashCOG May 3, 2013





## Overview

- Big Picture
- Regulation Updates/Overview
- Larger Trends in Sector
- WEF Activities





## Big Picture: The Rise of Nonpoint Source Pollution



#### **Point Source vs. Nonpoint Source**

#### **Water Pollution**

William Ruckelshaus, A New Shade of Green, The Wall Street Journal, April 17, 2010.





## **Big Picture: EPA Stream Assessment**

#### **Key Findings: Overall Biological Condition**

- 55% of the nation's river and stream miles do not support healthy populations of aquatic life, with phosphorus and nitrogen pollution and poor habitat the most widespread problems
- 23% of river and stream miles are in fair condition.
- 21% are in good condition and support healthy biological communities
- Numbers are worse in the Mid-Atlantic

80% of stream miles are small, wadable, headwater streams





## **Regulation Update/Overview**





### EPA Stormwater Rulemaking – Status

- Proposed rule to be released <u>June 10, 2013</u>
  - Currently going through options selection process
  - Not at Office of Management and Budget yet (expect a 90-day review period)
  - Has to go through internal review as well
  - Add things up will likely miss the proposal release date...again
- Final rule to be released <u>December 10, 2014</u>





## **National Stormwater Rulemaking**

- December 2009 EPA announced proposed rulemaking to:
  - Strengthen NPDES stormwater program
  - To further reduce impact of long-term stormwater discharges from developed sites
  - In reaction to Nat. Res. Council report stating program is ineffective
- Expected elements of the proposed rule?
  - Expand MS4 coverage/extents
  - Establish performance standards for new development and redevelopment
  - Require retrofit plans for some urban areas (Probably not!)
  - Separate program for transportation systems expected (TS4)
  - Address retrofit requirements for existing development
  - Additional requirements for sensitive waters





#### National Regulated Areas (Phase I & II MS4s)



ORTH IT

WATER'S

#### Currently we regulate:

#### 7,464 MS4s

- Phase I: 750 MS4s
- Phase II: 6714 MS4s
- Most MS4 are regulated based on the Urbanized Area (UA) boundary set by Census 2000. However, at least 12 states regulate based on the jurisdictional boundaries (JB) of the MS4.
- 9 States have expanded coverage to all cities with population greater than 10,000.
- Washington state regulates all cities within urban growth boundary.
- New Jersey regulates all MS4s





## 2010 Combined Statistical Areas & Regulated MS4s





- Expand MS4 extents
  - Could expand to HUC 10 or HUC 12 watershed boundary
  - Could expand to jurisdictional boundaries (instead of part of a county, include the whole county, etc.)
  - Could expand to include urban cluster areas (exurbs)
  - Will be an expansion of regulated universe due to 2010 census results – not related to rulemaking





- New Development Standard
  - Expected to be retention-based standard
    - Likely to be between 80<sup>th</sup> and 95<sup>th</sup> percentile
  - Will be tied to MS4 programs as well as sites beyond outside of MS4 boundaries
    - Will have a minimum size threshold
    - Think of the Construction General Permit program
  - There will likely be a predevelopment option (match or mimic existing hydrology for predeveloped condition)
  - There will be a water quality backstop meaning that if retention cannot be met, water quality treatment must be provided for the standard amount (85<sup>th</sup> percentile, etc.)





- Redevelopment Standard
  - Expected to be retention-based standard
  - Expected to be less than new development standard
    - If new development is 90<sup>th</sup> then redevelop will be 85<sup>th</sup>
  - New "green infrastructure plan" option has arisen
    - If GI plan is deemed to be "equivalent" to standard, may be allowed to be used in permits
    - May be a better/easier way to address in terms of Integrated Planning and Permitting efforts
- Retrofit Requirement
  - Likely to be removed covered under TMDL program?





- TS4 program for DOTs
  - Respects the difference in linear construction/projects
  - Expected to address principal arterial systems or 4-lane and above
  - Will use same performance standards, but different minimum measures
- Other issues:
  - Public comment review period expected to be 90 days
  - Implementation window likely to be 3-5 years
  - Equivalency
  - Sensitive waters (targeting Chesapeake Bay likely)
  - Inclusion of combined sewer systems into MS4 programs?







### Performance Standards (Cont'd)

- Could accommodate site constraints (including water rights laws)
  - Managed through treatment
  - Off-site mitigation
  - Payment-in-lieu
  - Banking or trading programs
- Allow watershed plans that control pollutants/flows
- Would credit alternative programs that are better suited to their needs, but that are as protective as the national standard
- Allow phased implementation

WATER'S WORTH IT

- Allow sites to do their own analyses based on site-specific information
- Allow alternative green infrastructure plan in-lieu-of a new and/or redevelopment standard



### Benefits of a Proposed Stormwater Rule

#### Water-Based Benefits



Improved recreational, aesthetic and non-use values

#### **Vegetation-Based Benefits**



Improved air quality and reduced human health impacts



Lower drinking water treatment costs



Higher off-site property values associated with green infrastructure



Lower dredging costs for navigational channels



Carbon uptake by plants



Reduced siltation of water storage reservoirs



Reduced downstream flooding damage

<u>Groundwater r</u>echarge



Small stream erosion and water quality impacts





## **2002 Stormwater TMDL Memo**

- Numeric WQBEL
  - Should be consistent with NPDES permit conditions
  - BMPs to be used when infeasible to calculate numeric WQBEL
- Aggregating Loads
  - Stormwater discharges from multiple point sources expressed as a single categorical wasteload allocation (WLA)
- Pollutant Surrogates
  - No mention of surrogates
- Designation Authority
  - Regulated stormwater discharges must be included in WLA
  - Unregulated stormwater discharges (i.e., nonpoint) may be included in LA





## EPA's November 2010 Memo

- Provide numeric water quality-based effluent limitations in NPDES permits for stormwater discharges
- Disaggregate stormwater sources in WLAs
- Use surrogates (e.g., runoff volume) for pollutants in TMDLs
- Designate additional stormwater sources to regulate
- Compliance schedules
- Increase accountability and enforceability
- Current status memo pulled back, now at OMB for review, schedule unknown





## Stormwater TMDLs – Accotink Creek

- Located in Fairfax County, Virginia (DC metro area)
- Impairment for benthic health linked to sediment as pollutant stressor (sediment TMDL originally)
- EPA Region III took over TMDL and tied flow to impairment through use of surrogate approach
  - Results would require 48% reduction of 1-year,
    24-hour storm





## Stormwater TMDLs – Accotink Creek

- Fairfax County/VDOT sued EPA and won case
  - Judge stated that flow is not a pollutant, therefore couldn't be limited
- May limit surrogate approach in TMDL many flow-based TMDLs are pending now – this may impact these
- Some claim this ruling calls into question the ability to regulate flow even under NPDES program
- EPA did not appeal the case
  - They believe the case is contained within the TMDL program
  - They believe the case is geographically contained (to Virginia)





## **Chesapeake Bay TMDL**



High costs spurring interest in:

- -Water quality trading
- -Public/private partnerships (P3's)
- -Cost-effeciencies





## **Funding Challenges**

- Costs for Chesapeake Bay TMDL:
  - State of Virginia projected cost of \$10B (Aqua Law, 2010)
    - Estimated to be \$700/household/year for next 15 years
  - Fairfax County, VA \$900M
  - Montgomery County, MD \$1.8B
- D.C. spending \$1.8B on CSO tunnels
- Costs for Urban Retrofit
  - \$150K-\$300K per impervious acre (Montgomery Co.)





## **Larger Trends in Sector**







## **Green Infrastructure**



White House Green Infrastructure Meeting

- All day meeting on September 20, 2012
- Hosted by White House Council on Environmental Quality (CEQ) and EPA
- 80 participants from Public, Private and NGO
  - WEF staff and volunteers included
- WEF Exec. Dir. Jeff Eger moderated a panel on barriers/benefits to GI implementation
- Summary report due





## Water Quality Trading

- Can water quality/nutrient trading help off-set costs?
  - NPS pollution treatment is up to 65 times cheaper than point source protection (Bacon, 1992)
  - Much hype, but few real results (so far)
  - Ohio River Trading Program
  - Renewed interest in Chesapeake Bay states on nutrient trading
    - Ches Bay Trading & Offset Workgroup
    - RPI Nutrient Trading Report

ORTH IT

WATER

80% cost-savings w/MS4 included in P-NP trading



# Stormwater Utilities – Fee or Tax?

### Stormwater Utility Legal Issues

- Fed gov't still pushing back on this legally –Washington State, Georgia
- Some states still view stormwater management fees as a "tax", thus striking down or eliminating
  - Baltimore is a good example...
  - Michigan and others dealing with this, too





## Funding – Alternative Sources

- Is there a role for the private sector in stormwater?
  - Public private partnerships (PPPs) to provide turnkey stormwater program services?
    - "Design-build" for stormwater?
  - Philadelphia credit program
    - Increased stormwater fee rates coupled with credit program for controls built on site up to 100% has generated great interest in program
    - Spurring growth in green design and construction
    - City will work with property owner to provide technical assistance





## Funding – Alternative Sources

Stormwater Volume/Retention Trading

- Does the Washington, D.C. stormwater runoff volume/retention market make sense?
  - Market for Stormwater Retention Credits (SRCs)
  - DC Dept. of Environment will administer program
  - SRCs to be renewed annually (more flexibility)
  - Multiple site retention will lead to greater volumetric control
  - Will drive more GI in less affluent areas (property costs) and will bring more protection to vulnerable waters





## **Stormwater Legal Cases**

### Supreme Court Cases

- L.A. County vs. NRDC water transfer rule upheld
- Logging road case Silvacultre not intended to be permitted as industrial activity
- What does this point to?
  - Stormwater is a nascent and evolving field
  - Considering to update/modernize the CWA





## **DC DOE MS4 Permit**

- Viewed as a template for the future
- Phase I MS4 Permit issued by EPA Region 3
- New and Redevelopment SW Controls
- Retrofit Program for Existing Discharges
- Tree Canopy coverage to increase (from 35% to 40%)
- Green Roof Projects
- Prevent discharge of more than 100,000 pounds of trash/year into the Anacostia River





## **WEF Activities in Stormwater**





## Stormwater at WEF

- Established Stormwater Committee
  Developed Stormwater Strategic Plan
- Developing coalitions with other groups
- Member associations in the region hosting stormwater events
  - Chesapeake WEA hosting a 1-day seminar on May 23
  - Virginia WEA hosted 1-day seminar on March 19
- Driving innovation in the sector





## The Inaugural Stormwater Symposium

July 18 – 20, 2012 Sheraton Baltimore City Center Baltimore, Maryland, USA



This conference is held by the Water Environment Federation in cooperation with the Chesapeake Water Environment Association, American Rivers, and the Water Environment Research Foundation.

www.wef.org/Stormwater2012

### **Stormwater Symposium 2012**

- Baltimore, July 18-20, 2012
- Partnered w/CWEA
- 400 attendees
- Multiple workshops
- Concurrent tracks
  - Topics include:
    - Policy, GI Costs/Benefits, SWM BMP Performance, Funding, Permitting / Codes-Standards, Public Outreach
- Panel Discussions, Keynote Speakers
- Partners / Supporters
  - EPA, American Rivers



## Stormwater Stormwater Congress October 5-9

### **Stormwater Congress 2013**

- Focused programming on SW at WEFTEC
- Four concurrent tracks
- All aspects of stormwater, wet weather, and related issues
- <u>www.weftec.org/stormwatercongress</u>





## **Current/Recent WEF Activities**

- Ongoing Publications on
  - Stormwater Utilities due out in June, 2013
  - Green Infrastructure Practitioner Guide May, 2014
  - Water Quality Trading July, 2014
- Hosting a 2-day workshop on Low Impact Development Design / GI Design Competitions

– May 16-17, 2013 at EPA HQ

 Forming a workgroup to investigate a national stormwater product testing and verification program (STEPP)





## Water Quality Trading



- EPA, WRI and WEF WQ Trading Workshop
  - Policy/case study updates
  - Hot spots, baselines, stormwater/MS4
  - www.wef.org/waterqualitytrading
- WEF WQT publication in development







## **The Stormwater Report**



- Free e-newsletter that comes out on first Thursday of every month
- News, events and WEF-focused info on stormwater
- Was launched in April, 2011 circulation now up to over 15,000
- Go to http://stormwater.wef.org or email ktwigg@wef.org for more information or to sign up





## Green Infrastructure

### WEF- EPA Partnership on Green Infrastructure

- Technical aspects of stormwater rulemaking ("Barriers/Solutions")
- Meeting on GI/LID at SW Symposium
  - Focus on cost-effectiveness and performance of GI/LID vs. traditional SWM
  - Included OMB, CEQ, and EPA

RTH IT

WATER'









## Updates on Stormwater Issues and Activities

### Seth Brown, P.E. WEF Stormwater Program and Policy Manager WashCOG May 3, 2013



