The National Pretreatment Program:
A view from EPA’s Office of Wastewater Management

A Core Program within the NPDES Program

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NACWA Pretreatment Conference

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EPA Presentations Overview

- Office of Wastewater Management Priorities
- National Pretreatment Program Update
- Effluent Guidelines Program Update
- Office of Enforcement and Compliance Assistance’ efforts to strengthen pretreatment program
- eReporting Rule and other e-tools
Objectives of the Pretreatment Program

40 CFR 403.2
- To prevent the introduction of pollutants into POTWs which will:
  - interfere,
  - pass through, and/or
  - be incompatible
- To improve opportunities to recycle and reclaim wastewaters and sludges

40 CFR 403.5
- To protect the POTW infrastructure
- To protect POTW workers
Corrosion of Collection System and/or Treatment Plant

Explosions

Interference with Wastewater Treatment Facility

Injury to Workers from Hazardous Fumes

Limitations on Sludge Disposal Options and/or Greater Expense

Pass-Through of Toxics into Surface Waters
### Key Pretreatment Regulation Sections

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What are the Key Components of a Pretreatment Program?

40 CFR 403.8

- Legal authority
- Local limits
- Procedures
- List of Industrial Users
- Enforcement (Enforcement Response Plan)
- Funding
2013 Office of Wastewater Management
Focus Areas & Objectives

Plan
- Green Infrastructure Practices
- Integrated Wet Weather Planning
- Establishment of Guiding Principles
  Identify pathways to strengthen sustainable practices

Program
- Stormwater Rule
- Energy Sector
- Combined Animal Feeding Operations
- Pretreatment
  Protect vital resources
  Enhance energy relationships

Produce
- Sustainability Handbook
- Technology Innovation
- Partnerships
  Innovate for smart, sustainable growth

Integrated efforts resulting in effective collaboration with government and private industry
Global Water Crisis

Unseen crisis: Failing Infrastructure
Efficient water use depends on working, modern infrastructure, but leaking water collection and distribution systems and inadequate wastewater treatment continue to plague municipalities. Modern, efficient water infrastructure is crucial to meet the needs of expanding populations.

Growing Problem: Water Scarcity
Safe drinking water is a precious asset. Although 70% of the world’s surface is covered by water, only one percent of the total water resource on earth are available for human use. Today, that one percent is under threat as a result of population growth, urbanization, and crumbling infrastructure.

U.S. water footprint is among the world’s highest, and more than double the global average.
Recognition, Perception, and Disconnects

Americans concerned with state of nation’s water infrastructure: 77%

Willing to pay more for water infrastructure improvements: 61%

Believe water infrastructure requires reform: 88%

Want more funds invested to upgrade water infrastructure: 85%

Believe government should be accountable for fixing water infrastructure problems: 88%

Trust federal government to address the problem: 22%

Underestimate daily water use by less than half: 54%

Take access to clean water for granted: 29%

Believe water infrastructure problems affect them personally: 69%

1 Amount up 24% from 2010
2 Federal/State/Municipal
3 Down from 41% in 2010

Sources: USGS, EPA, and Xylem Inc
Green Infrastructure
Initiatives & Partnerships

- EPA has several initiatives to help municipalities implement green infrastructure approaches
  - Green Infrastructure Partner Community effort established partnerships with 25 communities and provides technical support to 19
  - EPA’s Office of Research and Development (ORD) Pilot Community effort provides technical support to 5 municipalities and $6M to green infrastructure research in 2012

- Recently, EPA, DC Water and the District signed green infrastructure partnership agreement
  - joint commitment to green infrastructure and path forward to consider possible green infrastructure amendments to their consent decree

- Philadelphia requested federal partnership in their state negotiated, green infrastructure approach
  - EPA signed partnership agreement and administrative order with Philadelphia to bring all parties into united effort for the most ambitious green infrastructure effort in the country
Integrated Wet Weather Planning

- October 27, 2011 memo expresses EPA commitment/support for integrated approaches to municipal stormwater and wastewater management

- Integrated planning approaches help municipalities meet their CWA obligations by fostering:
  - Sequencing of projects in a way that starts highest priority projects first; and
  - innovative solutions, (e.g., green infrastructure)
Sustainability Handbook

- EPA’s goal is to ensure sustainable management of water infrastructure and utilities operations based on our Sustainability Policy.
- Significant input from leading utilities throughout its development.
- Designed to help utilities select projects that:
  - Protect human health and water quality while supporting other relevant community goals.
  - Reflect full lifecycle costs and are based on analysis of alternatives, including conservation or “green” approaches.
  - Webinar series now underway—supplemental guidelines on alternatives analysis expected in 2013.
Steroids, nonprescription drugs, and an insect repellent were the three chemical groups most commonly detected in susceptible streams. Detergent metabolites, steroids, and plasticizers generally were found at the highest concentrations.
NPDES and Pretreatment Program Challenges

- NPDES & pretreatment programs are highly decentralized
- Vast and increasingly complex NPDES and pretreatment programs
- Shrinking budgets, workforces and experience drain
- Important for addressing potential WQ, sludge and Human health impacts
Questions?