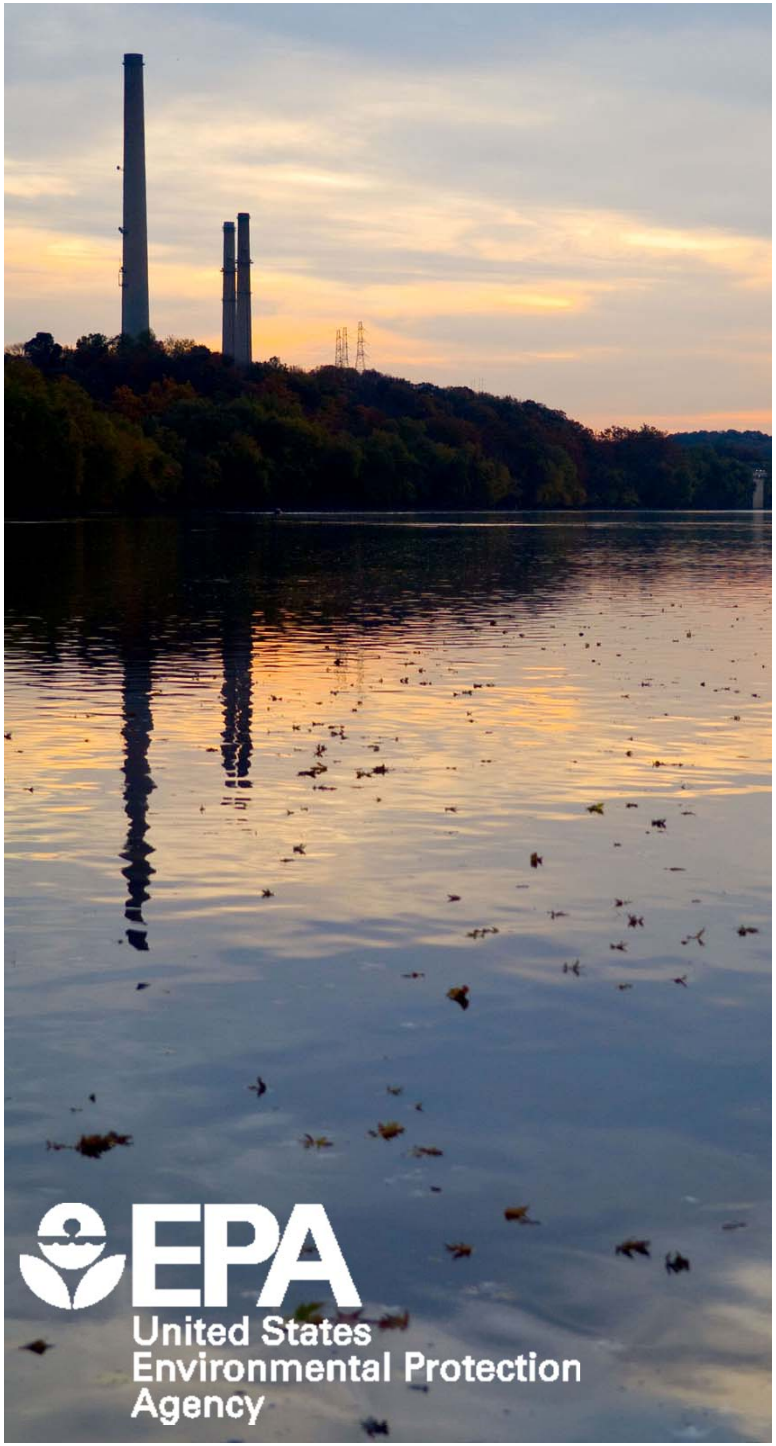


The National Pretreatment Program: A view from EPA's Office of Wastewater Management

A Core Program within the NPDES Program

May 14, 2014
NACWA Pretreatment Conference

Marcus Zobrist
Chief, Industrial Branch
Water Permits Division

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

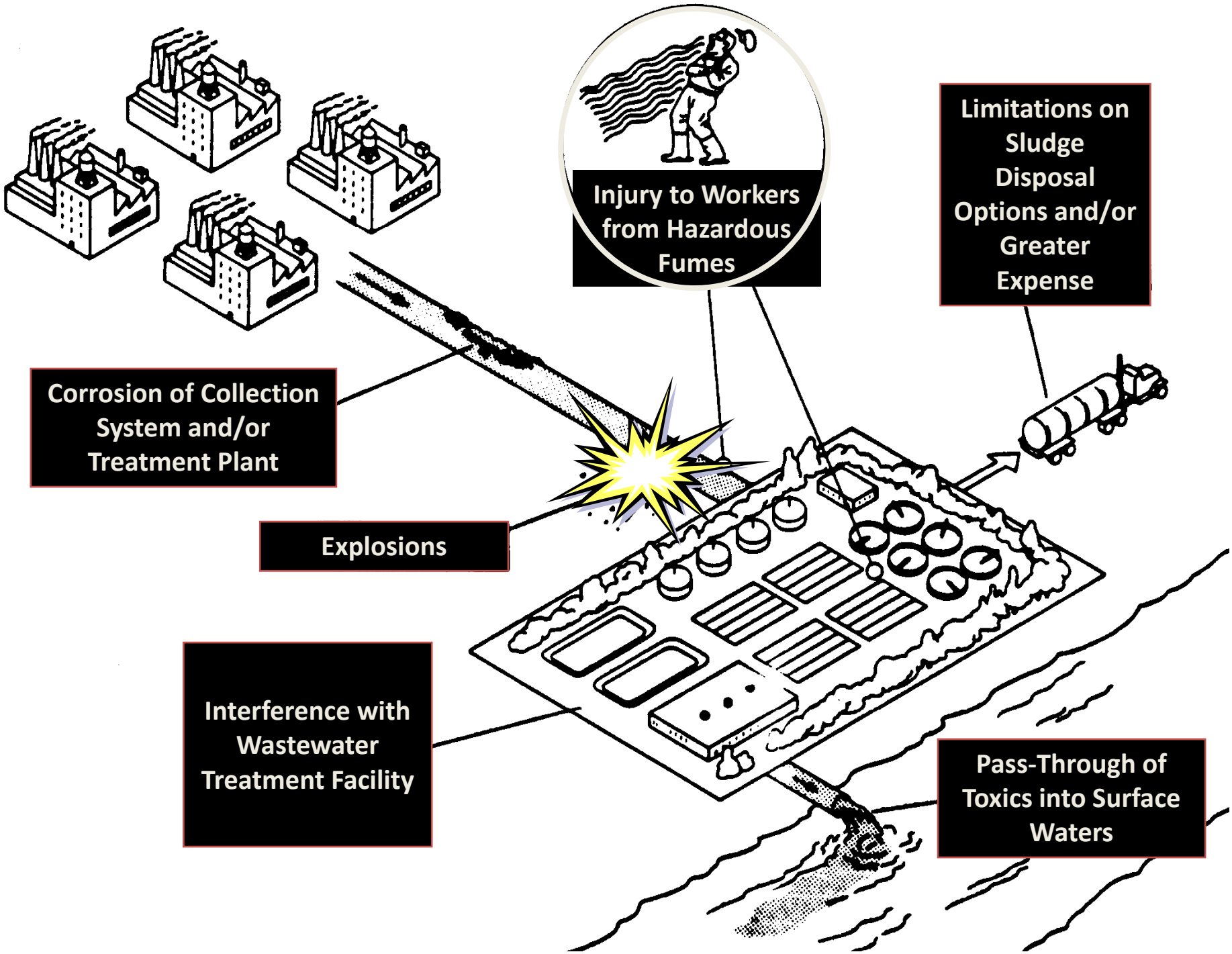
Objectives of the Pretreatment Program

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


Injury to Workers from Hazardous Fumes
Limitations on Sludge Disposal Options and/or Greater Expense
Corrosion of Collection System and/or Treatment Plant
Explosions
Interference with Wastewater Treatment Facility
Pass-Through of Toxics into Surface Waters

Key Pretreatment Regulation Sections

403.1	Purpose and Applicability
403.2	Objectives of General Pretreatment Regulations
403.3	Definitions
403.4	State or local law
403.5	National Pretreatment Standards: Prohibited discharges
403.6	National Pretreatment Standards: Categorical standards
403.7	Removal Credits
403.8	Pretreatment Program Requirements: Development and Implementation by POTWs
403.9	POTW pretreatment programs and/or authorization to revise pretreatment standards: Submission for approval
403.10	Development and submission of NPDES State pretreatment programs
403.11	Approval procedures for POTW pretreatment programs & POTW granting of removal credits
403.12	Variances from categorical pretreatment standards for fundamentally different factors
403.14	Confidentiality
403.15	Net/Gross calculation
403.16	Upset provision
403.17	Bypass
403.18	Modification of POTW pretreatment programs
403.19	Provisions of specific applicability to the Owatonna Waste Water Treatment Facility
403.20	Pretreatment Program Reinvention Pilot Projects Under Project XL

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
- Pretreatmemt

Protect vital resources

Enhance energy relationships

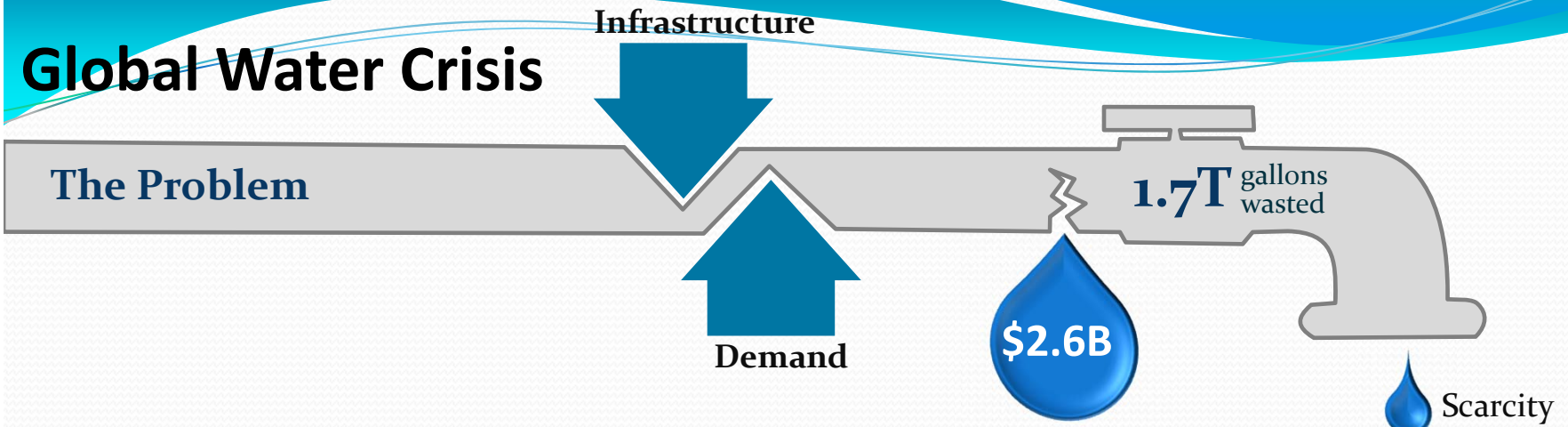
Produce

- 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.

100 YEARS
THE AGE OF SOME U.S. WATER INFRASTRUCTURE

Scarcity

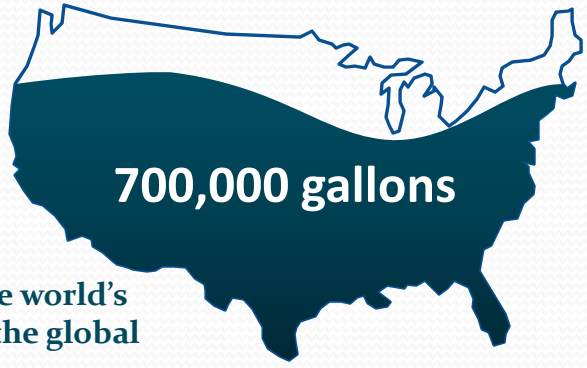
Suitability

Sustainability

Growing Problem: Water Scarcity

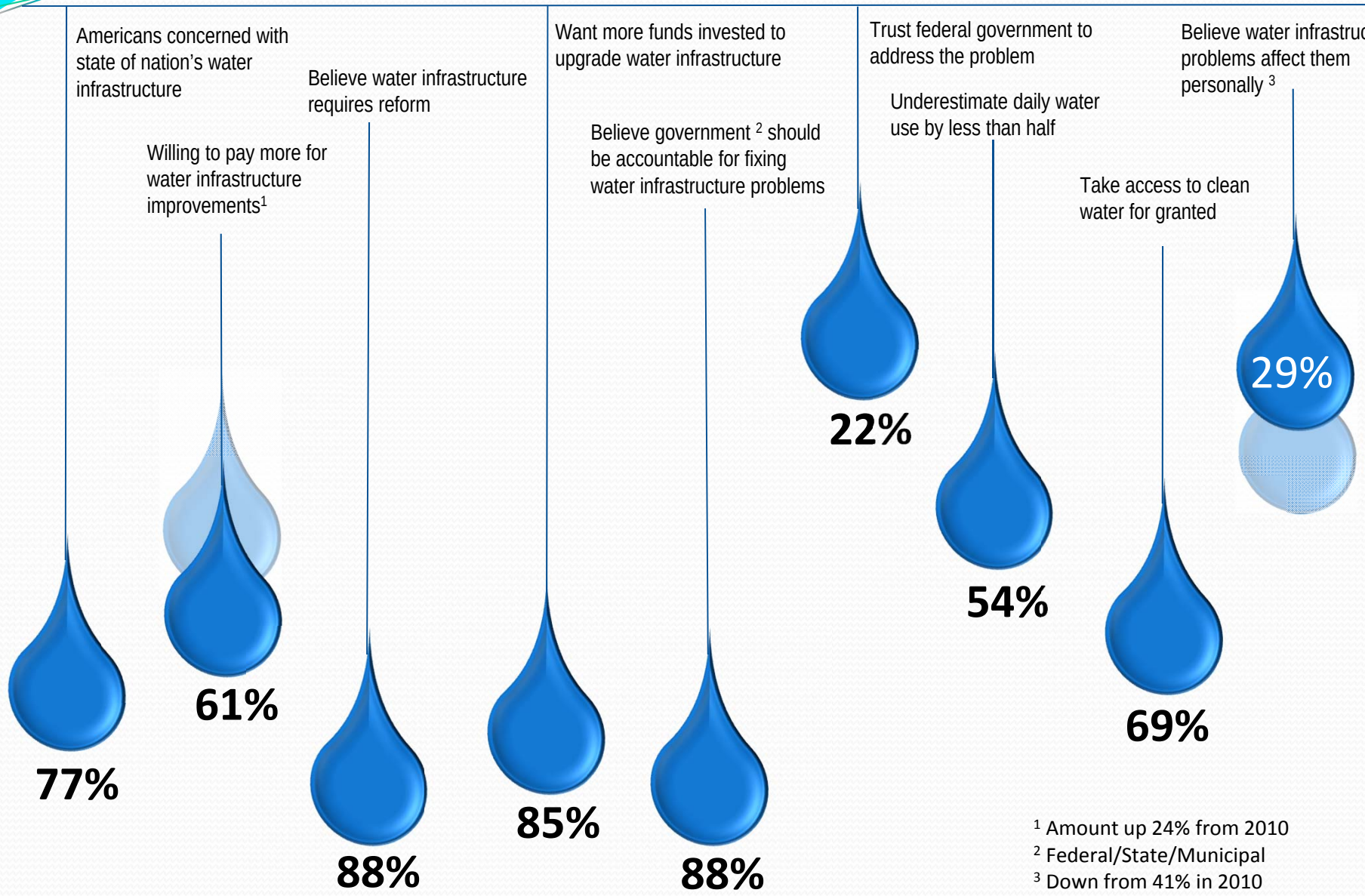
Safe drinking water is a precious asset. Although 70% of the world's surface is covered by water, only one percent of the total water resource on earth are available for human use. Today, that one percent is under threat as a result of population growth, urbanization, and crumbling infrastructure.

$2.6 BILLION
AND 1.7TRILLION GALLONS LOST EVERY YEAR FROM BROKEN AND LEAKING PIPES



U.S. water footprint is among the world's highest, and more than double the global average.

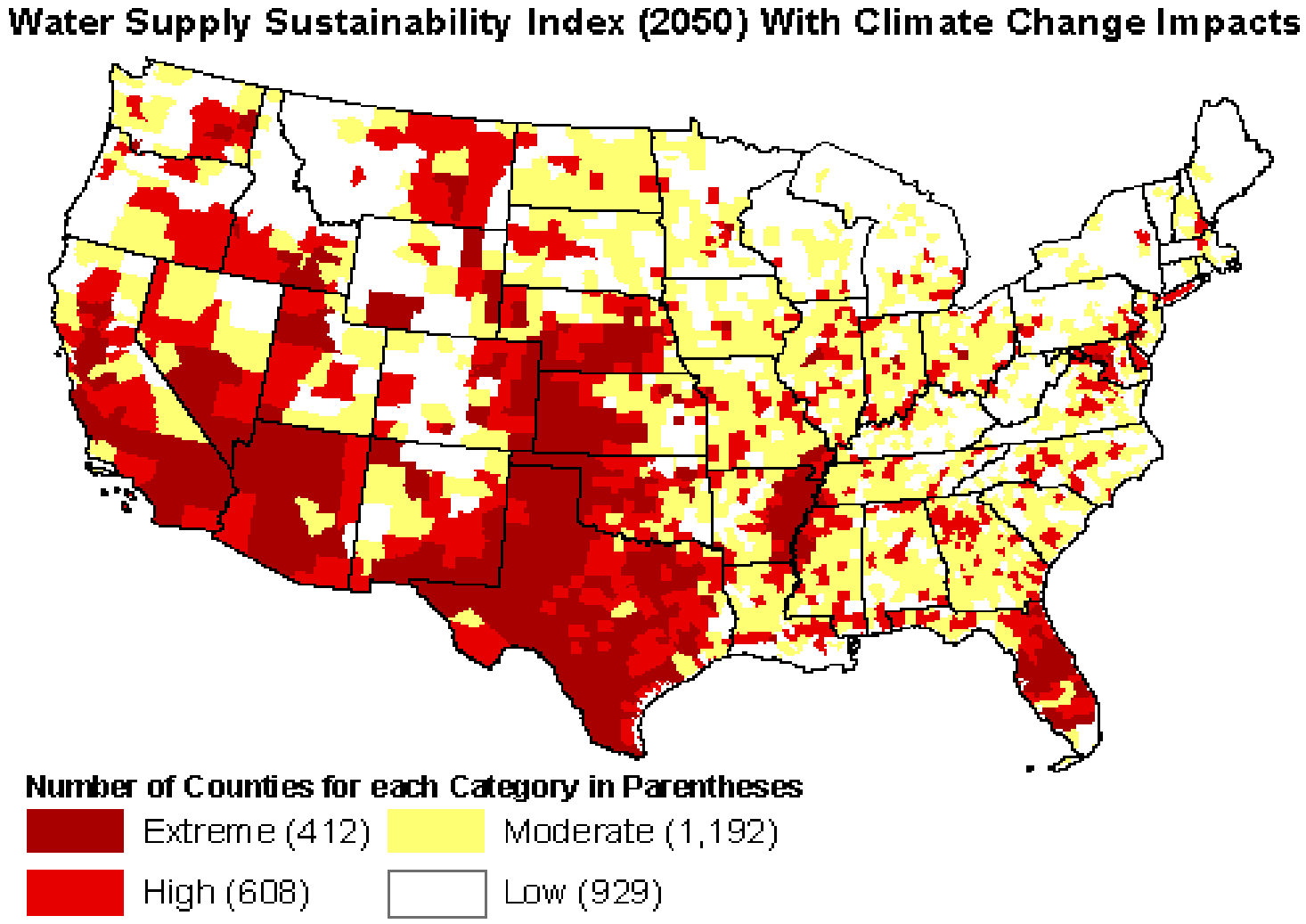
Recognition, Perception, and Disconnects



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

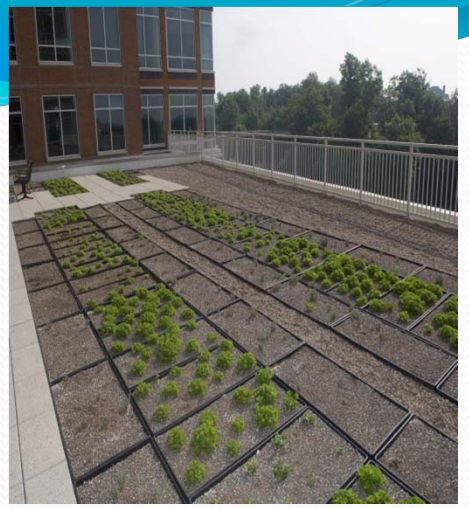
Sources: USGS, EPA, and Xyleminc

Water Supply and Demand in a Changing Climate



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

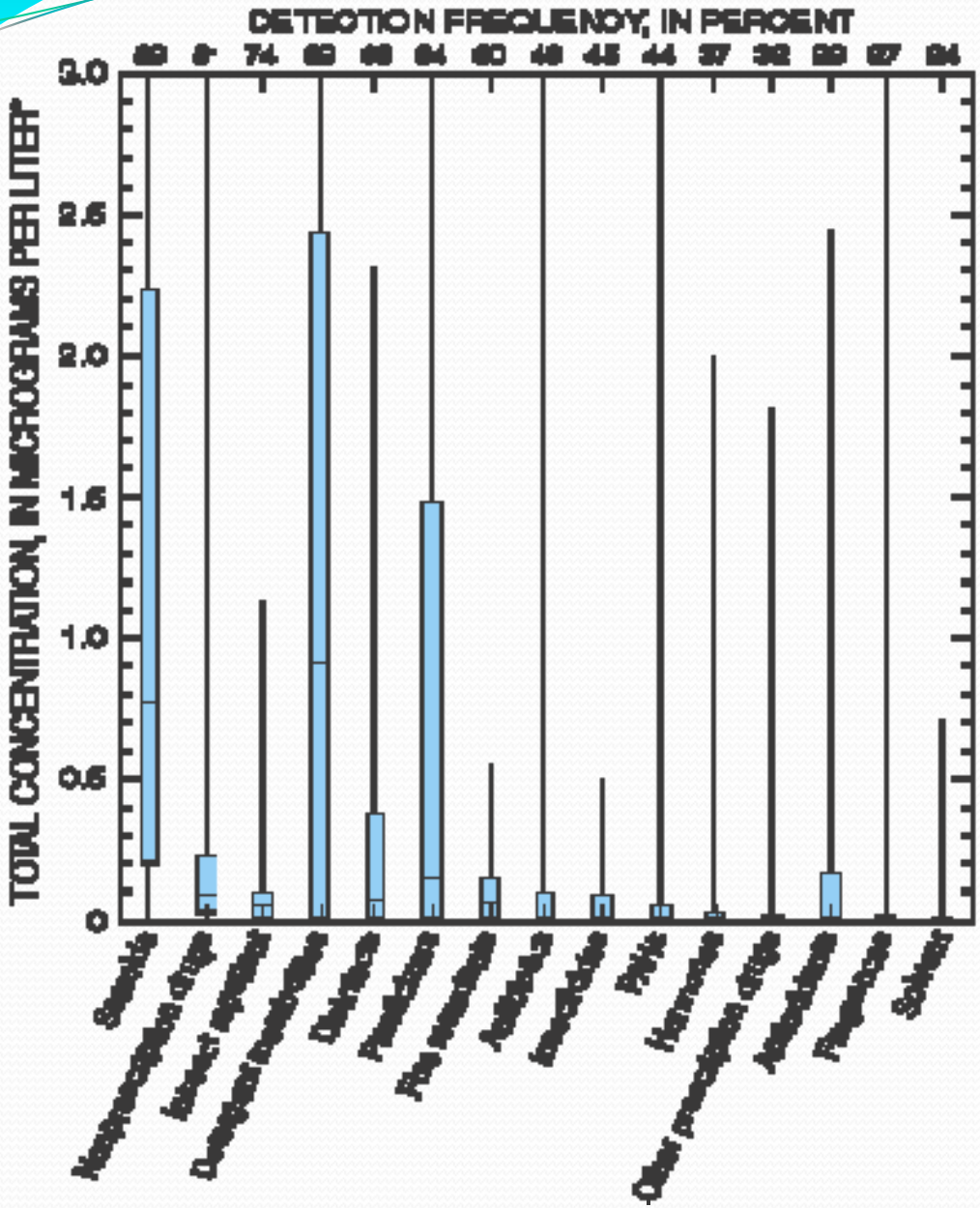
Integrated Wet Weather Planning

- 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
- Based on EPA's Policy, *"Planning for Sustainability: A Handbook for Water and Wastewater Utilities"* released in February, 2012
- 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

Pharmaceuticals, Hormones, and Other Organic Wastewater Contaminants in U.S. Streams – 1999 to 2000.



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.

USGS Fact Sheet FS-027-02, 2002

NPDES and Pretreatment Program Challaneges

- 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?