

US EPA ARCHIVE DOCUMENT

RESEARCH FORUM:

Extreme Event Impacts on Air Quality and Water Quality with a Changing Global Climate

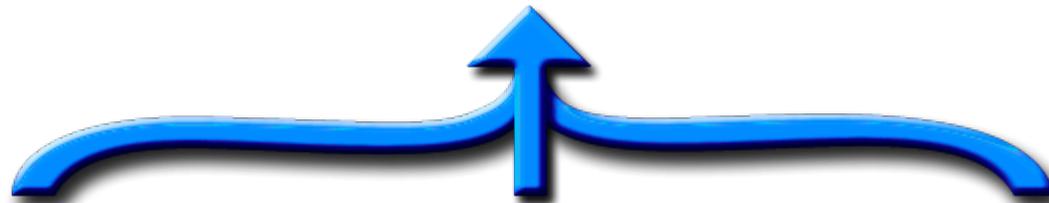
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Safe & Sustainable Water Resources Program Introduction

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EPA MISSION

Protect human health and safeguard the natural environment – air, water, land – upon which life depends



Regulatory Agenda

Scientific Foundation

Implementation, Execution

PROGRAM OFFICES
Air, Water, Pesticides &
Toxics, etc.

OFFICE OF
RESEARCH AND
DEVELOPMENT

REGIONS
Primary
Interface with States

Air, Climate
and Energy

Chemical Safety
for Sustainability

Sustainable and
Healthy
Communities

Safe and
Sustainable
Water Resources

Human Health
Risk Assessment

Homeland
Security
Research

SSWR Program Goals

- 1. Protect public health and the environment.***
- 2. Provide safe and sustainable water to meet societal, economic and environmental needs.***
- 3. Manage water resources sustainably by:***
 - ❖ Integrating management approaches to wastewater, storm water, drinking water and reclaimed water,
 - ❖ Maximizing water recovery; energy, nutrient and materials management, and
 - ❖ Incorporating comprehensive water planning and optimizing combinations of built, green and natural infrastructure.



SSWR 7 Questions

- 1:** What factors are most significant and effective in ensuring the sustainability and integrity of water resources?
- 2:** What approaches are most effective in minimizing the environmental impacts of naturally-occurring and anthropogenic contaminants and land-use practices leading to the sustainability of surface and subsurface water resources? (e.g., energy production, mineral extraction and injection activities, agriculture, urbanization)
- 3:** What are the impacts of climate variability and changing human demographics on water quality and availability in freshwater, estuarine and coastal aquatic ecosystems?
- 4:** What are the most effective and sustainable approaches for maintaining and improving the natural and engineered water system to effectively protect water quantity and quality?
- 5:** How can the Agency effectively manage water infrastructure to produce safe and sustainable water resources from source to drinking water tap to receiving waters?
- 6:** What effective systems-based approaches can be used to identify and manage causes of degraded water resources to promote protection and recovery?
- 7:** What technical and highly-targeted research activities are needed to support Program and Region Offices?

Water Resource Sustainability Challenges With a Changing Global Climate

A Changing Paradigm:

***From choosing the best quality water source to the best uses of
available source waters.***

Meeting both Water Quality and Water Quantity needs also means addressing Source Water Reliability and Variability issues.