



Water Security Progress and Resources

EPA's Office of Water and its partners are working to improve the security of the nation's drinking water and wastewater infrastructure. This document highlights EPA managed and/or funded projects and resources. For more information, visit www.epa.gov/watersecurity.

Training & Financial Assistance

Training and workshops, water and wastewater security protocols, and direct and indirect financial assistance to state and local government agencies.

- **Security Training and Tools**
EPA supports organizations that develop security tools and provide comprehensive security training to states, territories, tribes, and water systems. <http://www.epa.gov/safewater/watersecurity/tools/>
- **Water Security Guide for Systems Serving 3,300 people or Fewer**
This guide will provide security guidance to small system drinking water managers and operators.
(contact: bielanski.andrew@epa.gov)
- **Grants to States and Territories for Drinking Water Security**
These grants will provide funding for coordination activities among state, territorial, and local water managers, homeland security and other emergency response officials.
<http://cfpub.epa.gov/safewater/watersecurity/financeassist.cfm>
- **Emergency Response Training Workshops for Water Utilities**
With the Department of Homeland Security (DHS) and others, EPA has designed workshops, drills, tabletop exercises, and simulations to train utilities on the Response Protocol Toolbox and Emergency Response Plan protocols. <http://www.epa.gov/safewater/watersecurity/outreach>
- **Emergency Response Training Workshops for Wastewater Systems**
With the DHS and others, EPA will train wastewater utilities in infrastructure threat response and contingency practices. (contact: fraser.brian@epa.gov)
- **Using Contaminant Information in Evaluating Water Contamination Threats and Incidents**
This online course, developed for EPA Regional emergency responders, On-Scene Coordinators (OSCs), EPA drinking water program staff, state primacy drinking water agencies, and water utility personnel, will increase awareness of the types of contaminants that may be used to intentionally contaminate water and the decision-making process used in evaluating threat situations.
(contact: smith.ashley-m@epa.gov)
- **Drinking Water Academy Security Courses and Products**
These Drinking Water Academy (DWA) courses include security consideration for small drinking water systems and risk communication principles. DWA products include a learner's guide for sanitary survey inspectors and educational videos on assessing vulnerabilities and emergency response planning.
<http://www.epa.gov/safewater/dwa/resources.html>
- **Wastewater Operator Training Program**
EPA funds state environmental training centers to provide on-site and classroom security training for small wastewater utilities. <http://www.epa.gov/owm/mab/smcomm/104g/>



Available Water Security Resources

All of these products or links to them are available online at www.epa.gov/watersecurity, or contact the Safe Drinking Water Hotline at 1-800-426-4791.

Tools

Water Information Sharing and Analysis Center (WaterISAC)

Managed by the Association of Metropolitan Water Agencies, this secure Internet portal is designed to serve as a comprehensive resource of security information for drinking and wastewater utilities. <http://www.waterisac.org>

Water Security Channel

Free service of WaterISAC designed to disseminate basic security information to the water sector. <http://www.watersec.org>

Risk Assessment Methodology for Drinking Water Utilities

Risk Assessment Methodology for Water Utilities (RAM-W) by American Water Works Association Research Foundation and Sandia National Laboratory <http://www.epa.gov/safewater/watersecurity/ram>

Vulnerability Assessment Methodologies

Vulnerability Self Assessment Tools (VSAT) developed by the Association of Metropolitan Sewerage Agencies for water, wastewater, and combined water/wastewater utilities. <http://www.vsatusers.net>

Protecting Your Community's Assets: Small Wastewater Systems

Guide developed by the National Environmental Training Center for Small Communities to help wastewater utility managers improve security http://www.nesc.wvu.edu/netcsc_index.htm

Vulnerability Assessment Tool for Small Drinking Water Systems

National Rural Water Association guide for small drinking water systems. <http://www.vulnerabilityassessment.org/>

Security Product Guide

Guide series to provide information to treatment plant operators and utility managers regarding products and tools that enhance both physical and cyber security and contaminant monitoring. <http://www.epa.gov/safewater/watersecurity/productguide>

Laboratory Capabilities Compendium

On-line database containing nationwide information regarding laboratories capable of analyzing water for contaminants. <http://www.epa.gov/compendium>

Guidance

Baseline Threat Information for Community Drinking Water Systems (and Wastewater Treatment Facilities) Two documents to better understand address potential vulnerabilities of, and threats to, water sector facilities. (contact: frazier.brian@epa.gov)

Response Protocol Toolbox: Planning for and Responding to Drinking Water Contamination Threats and Incidents. Organized into six modules, this document provides tools that are designed to help the water sector to effectively and appropriately respond to intentional contamination threats and incidents. <http://www.epa.gov/safewater/watersecurity/toolbox/>

Physician On-Line Reference Guide for Waterborne Disease

Website to help health care providers recognize and manage waterborne diseases. <http://www.waterhealthconnection.org/bt/index.asp>

Emergency Response Planning Guidance

Specialized guidance for drinking water utilities to help them meet the requirements of the *Public Health Security and Bioterrorism Preparedness and Response Act of 2002*. <http://www.epa.gov/safewater/watersecurity/pubs/util-inst.pdf>

Water Security Research & Technical Assistance Action Plan and Implementation Plan

The action plan identifies drinking water and wastewater security research and technical needs and the EPA projects that address them. The Implementation Plan is under development. <http://www.epa.gov/ordnhsrsrc/pubs.htm> (contact: nickel.kathy@epa.gov)

Laboratory Case Studies

Collection of laboratory case studies and lessons learned from real water contamination and emergency response situations involving unknown contaminant. (contact: smith.ashley-m@epa.gov)

Emergency Response Planning Guidance for Wastewater Systems

Specialized guidance, developed by the Water Environment Research Foundation to help wastewater utilities review threats, contingency practices, existing security technologies, monitoring, and communications with respect to wastewater facilities infrastructure. <http://www.werf.org/pdf/03cts4s.pdf>

Other Resources

Water Security Outreach Materials

Water security posters and flyers available by download and hard copy. <http://www.epa.gov/safewater/watersecurity/publications>

Water Watchers Brochure

Simple actions citizens can take to be a partner in their communities' security. http://www.epa.gov/safewater/watersecurity/pubs/brochure_security_waterwatchers.pdf

Law Enforcement Top 10 List

Visor card and flyer of ten water supply preparedness and security principles designed to assist law enforcement officials with water utility security effort http://www.epa.gov/safewater/watersecurity/pubs/brochure_security_top10.pdf

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Emergency Response

- **Emergency Response Training Tabletop CD**
EPA produced a training CD entitled “Emergency Response Tabletop Exercises for Drinking Water and Wastewater Systems”. This CD allows state, regional, and local water and wastewater utilities to prepare and conduct incident response training. The CD contains materials and guidance to assist first responders to successfully plan and conduct tabletop exercises that represent eight emergency response scenarios. (contact: whitler.john@epa.gov)
- **Law Enforcement Outreach and Training**
This initiative is designed to strengthen the emergency response ties with water utilities and law enforcement. (contact: bielanski.andrew@epa.gov)
- **Computer Assisted Training Tool for Laboratories**
This computer-based simulation will lead laboratories through the analytical decision-making process to identify unknown contaminants in an emergency response situation. (contact: smith.ashley-m@epa.gov)
- **Field Sampling Test Kits for Drinking Water Utilities and Other Members of the Response Community**
EPA will issue a list of components for standardized field sample collection and test kits that complement the Response Protocol Toolbox Site Characterization and Sampling Guide (Module 3) to assist drinking water utilities and other emergency responders in preparing for and reacting to water contamination threats and incidents. (contact: parker.latisha@epa.gov)
- **Association of Metropolitan Sewerage Agencies (AMSA) Planning Tool**
This planning tool for wastewater facilities will help them to prepare for the response to chemical, biological, and radioactive contaminants in collection systems and treatment plants. (contact: wheeler.james@epa.gov)
- **Mobile Treatment Units**
EPA is collaborating with the Department of Defense Office of Naval Research to develop requirements and possibly test mobile water treatment units to be used for homeland security incidents. (contact: whitler.john@epa.gov)

Initiatives aimed at making security a standard business practice.

Research & Technology Development

Development of testing programs, computer models, and interactive databases to assist local utilities and assistance providers. EPA's homeland security research activities are led by the National Homeland Security Research Center. For more information visit: www.epa.gov/nhsrc

- **Water Contaminant Information Tool**

This web-accessible database will contain current information on priority non-traditional water contaminants to assist in planning for and responding to drinking water contamination threats and incidents. (contact: smith.ashley-m@epa.gov)

- **Analytical Methods**

EPA is developing laboratory analytical methods relevant to water security and creating a system to aid in applying these methods to known or unknown water contaminants. (contact: parker.latisha@epa.gov)

- **Analytical Methods Data Base**

This product will update the National Environmental Methods Index to include methods relevant to water security, such as methods to analyze for contaminants suspected in a water contamination threat. (contact: allgeier.steve@epa.gov)

- **Homeland Security Technology, Testing and Evaluation Program**

This program reviews new water security monitoring, treatment, and decontamination technologies. (contact: koglin.eric@epa.gov)

- **Reverse Library Search Tool**

This tool will develop a library of contaminant-of-concern "fingerprints" so that these can be compared to sample results for more rapid contaminant identification. (contact: smith.ashley-m@epa.gov)

- **Concentration and Extraction of Water Chemical Contaminants in the Field**

The Technical Support Working Group, with EPA support, is developing portable cartridges to extract and concentrate potential chemical contaminants in water from bulk water samples in the field. (contact: smith.ashley-m@epa.gov)

- **Distribution System Security**

EPA is supporting the Distribution System Research Consortium in many areas related to water security for distribution systems, including the development of solutions to help safeguard distribution systems. (contact: herrmann.jonathan@epa.gov)

- **Interdependencies Analysis**

EPA is studying the direct and indirect effects of disruptions to external infrastructures to water utilities by studying the impacts of the 2003 electrical blackout and Hurricane Isabel through a survey of technical literature. EPA is also working to develop a modeling tool to help utilities reduce their vulnerabilities to disruptions in these interdependent infrastructures. (contact: whitler.john@epa.gov)

- **Security Measures for Automated Systems at Drinking Water and Wastewater Facilities**

EPA has funded a project to analyze the risks and vulnerabilities associated with available data communication technologies, such as Supervisory Control and Data Acquisition "SCADA" systems, and to help refine or develop new, secure data communication strategies. (contact: whitler.john@epa.gov)