Risk Assessment: Water Systems

DESCRIPTION
Terrorism against the United States’ water systems remains a persistent concern in the effort to bolster homeland security. Contamination of the water supply poses a real danger that has prompted homeland security experts to devise methodologies aimed at assessing risk to this specific, critical infrastructure sector.

RESOURCES
Tools and Software
Federal Government
Environmental Protection Agency (EPA):

**Water and Wastewater Security Product Guide**: The EPA offers a menu of software programs, assessment tools, and other products designed to reduce the risks to water systems.
http://www.epa.gov/safewater/watersecurity/guide/

Associations
National Rural Water Association (NRWA):

**Vulnerability Assessment**: The NRWA developed a vulnerability assessment software tool for use at the state and local level. This product, referred to as the Security and Emergency Management System (SEMS), is available by contacting one’s local NWRA affiliate.
http://www.vulnerabilityassessment.org/

New England Water Works Association (NEWWA):

**Automated Security Survey & Evaluation Tool (ASSET)**: A self-guided program, ASSET was designed by NEWWA to assist small to medium-sized water systems in conducting vulnerability assessments of their systems as required by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. The ASSET Tool can be obtained by contacting the address listed at the bottom of the website.
http://www.newwa.org/asset_software/

Private Sector

**Vulnerability Self Assessment Tool™ (VSAT) for Water & Wastewater Utilities**: Created by a consortium of security companies, VSAT is a free software program for wastewater and drinking water utilities that uses a qualitative risk
assessment methodology. The program is flexible and designed to be customized to suit the specifications of any particular water system.

http://www.vsatusers.net/

Guides and Fact Sheets

Federal Government

Environmental Protection Agency (EPA):

Instructions to Assist Community Water Systems in Complying with the Public Health Security and Bioterrorism Preparedness and Response Act of 2002: Specific, step-by-step guidelines are provided by the EPA to assist communities in achieving compliance with the 2002 federal legislation that required certain communities to conduct vulnerability assessments and submit the results of those assessments to the EPA. (LLIS.gov ID# 12757)

Water System Vulnerability Assessment Factsheet: This is an EPA primer on vulnerability assessment methodologies for water systems. The guide lists the basic elements of risk assessment and the special considerations that need to be taken into account when adapting the risk assessment methodology to water systems. (LLIS.gov ID# 12758)

National Laboratories: Sandia National Laboratories:

Water Infrastructure Risk Assessment: The Homepage of Sandia’s water infrastructure risk assessment research provides access to risk assessment methodologies and software packages, as well as training programs related to water infrastructure risk assessment. (LLIS.gov ID# 12759)

State Government

Washington: Department of Health:

Security Vulnerability Self-Assessment Guide for Small Drinking Water Systems: Designed as a risk assessment tool for water system personnel, this guide features a questionnaire and checklist for local officials to complete in determining vulnerabilities and deciding which vulnerabilities need to be addressed. (LLIS.gov ID# 12760)

Associations

American Water Works Association (AWWA):

Security Assessment for Drinking Water Utilities (requires Real Audio player): This site contains a video of an American Water Works Association (AWWA) presentation on security risk assessment for drinking water utilities (done in association with Sandia National Laboratories). http://www.greenworks.tv/events/watersecuritywebcast112701.htm
Association of State Drinking Water Administrators (ASDWA):

**Critical Infrastructure Protection**: This site contains ASDWA’s collection of online resources and links related to water system infrastructure security. The site includes a host of vulnerability assessment guides, water security training information, and links to related websites.  

Universities and Think Tanks

**West Virginia University**:

**National Environmental Training Center for Small Communities (NETCSC)**:

**Protecting Your Community's Assets: A Guide for Small Wastewater Systems**: The NETCSC has made available for download a guide advising small communities on how to protect their water system infrastructure. The site also includes information on water security training programs.  
http://www.nesc.wvu.edu/netcsc/

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