



February 2003

Community Public Water System Security Vulnerability Assessments

Public Water System Vulnerability Assessments Required

On June 12, 2002, President Bush signed the Public Health Security and Bio-terrorism Preparedness and Response Act of 2002 (Bio-terrorism Act) into law. The Bio-terrorism Act added language to the Safe Drinking Water Act requiring every community public water system serving a population of greater than 3,300 people to:

- 1) conduct a vulnerability assessment;
- 2) certify and submit a copy of the assessment to the U.S. EPA Administrator (within a specified schedule);
- 3) prepare or revise an emergency response plan that incorporates the results of the vulnerability assessment; and
- 4) certify to the U.S. EPA Administrator, within six months of completing the vulnerability assessment, that the system has completed such a plan.

The Bio-terrorism Act also establishes the following dates for certification and submission of the vulnerability assessments, and for certification of the emergency response plans:

| Population served: | Certify and submit vulnerability assessment by: | Certify emergency response plan within six months, but no later than: |
|---------------------------|--|--|
| 100,000 or greater | March 31, 2003 | September 30, 2003 |
| 50,000 – 99,999 | December 31, 2003 | June 30, 2004 |
| 3,301 – 49,999 | June 30, 2004 | December 31, 2004 |

Community public water systems that sell water to other community public water systems must consider the total population served, that is the total population of the community public water system plus any satellite systems, when determining their deadlines for submitting these documents to U.S. EPA.

What are the Basic Elements of Vulnerability Assessments?

The vulnerability assessment process will range in complexity based on the design and operation of the water system itself, including system size, potential population affected, source water, treatment complexity, system infrastructure and other factors. Security and safety evaluations also vary based on knowledge and types of threats, available security technologies, and applicable local, state and federal regulations. The Bio-terrorism Act requires that the vulnerability assessment include, at a minimum, review of nine specific portions of the system: pipes and constructed conveyances; physical barriers; water collection; pretreatment; treatment; storage and distribution facilities; electronic, computer or

other automated systems which are utilized by the public water system; the use, storage, or handling of various chemicals; and the operation and maintenance of such system.

Guidance Available to Public Water Systems

U.S. EPA has prepared several documents to help public water systems meet the requirements, including the following:

Instructions to Assist Community Water Systems in Complying with The Public Health Security and Bio-terrorism Preparedness and Response Act, Title IV - This document provides information on how to comply with certification and submission of vulnerability assessments and certification of completion of Emergency Response Plans.

Vulnerability Assessment Fact Sheet - This describes the purpose and elements of vulnerability assessments to help water systems evaluate potential threats and identify corrective actions to prepare for and respond to an attack.

Model Emergency Response Guidelines - This document provides uniform response, recovery, and remediation guidance for water utility actions in response to man-made and/or technological emergencies.

These documents are available from U.S. EPA and can be accessed online at <http://www.epa.gov/safewater/security/index.html> or by contacting Nick Damato (U.S. EPA - Region 5) at the telephone number or e-mail address provided at the end of this fact sheet.

Baseline Threat Information for Vulnerability Assessments of Community Water Systems - U.S. EPA prepared this document to assist water utilities in conducting vulnerability assessments by presenting an overview of threats, methodologies, and strategies for water utilities to consider during the vulnerability assessment process. Ordering instructions were sent to public water systems in October 2002. If you did not receive these instructions, please contact Nick Damato (U.S. EPA - Region 5) or the Water Information Sharing & Analysis Center at (866) 426-4722.

Assessment Tools Available to Public Water Systems

There are currently several tools available to help community public water systems meet these new Safe Drinking Water Act requirements. U.S. EPA is continuing to develop additional tools.

Security Vulnerability Self-Assessment Guide for Small Drinking Water Systems Serving Populations Between 3,300 and 10,000 - The guide, developed by the Association of State Drinking Water Administrators (ASDWA) and the National Rural Water Association (NRWA), is designed to help these systems complete vulnerability assessments required under the Bio-terrorism Act. Copies of this document are available from ASDWA, 1025 Connecticut Avenue, NW - Suite 903, Washington, D.C. 20036 (telephone (202) 293-7655 and fax (202)293-76560). Copies are also available online at: <http://www.asdwa.org/>. NRWA also has an online version of this guide, the Security Vulnerability Assessment Engine available at <http://www.vulnerabilityassessment.org/>.

Vulnerability Self Assessment Tools (VSAT™) - The Association of Metropolitan Sewerage Agencies (AMSA) has produced a series of tools to assist wastewater, joint water/wastewater utilities, and small-medium sized water utilities in conducting a vulnerability assessment. These software tools provide a user-friendly approach to evaluate, prioritize and remediate vulnerabilities based upon five critical utility asset: physical plant, information technology, knowledge base, employees and customers. The software can be ordered online at <http://www.vsatusers.net/> or by calling (888) 340-8830.

Risk Assessment Methodology for Water Utilities (RAM-W) - Sandia National Laboratories and the American Water Works Association Research Foundation (AwwaRF) have developed a methodology for conducting vulnerability assessments for large drinking water utilities based on current state of the science. The methodology contains sensitive information and is not available to the general public; it is only available to relevant stakeholders in the water supply community and is subject to strict non-disclosure requirements. AwwaRF will provide copies of the methodology free of charge to its subscribers. All other relevant stakeholders may obtain a copy from the American Water Works Association (product number 20529) for \$85 plus shipping and handling. To request ordering information, contact Eric Lovick at (303) 734-3441.

Online Information Sources

U.S. EPA - Water Infrastructure Security

<http://www.epa.gov/safewater/security/index.html>

This website provides information about and links to the information and tools a community public water system will need to prepare its vulnerability assessment.

State of Ohio - Homeland Security

<http://www.state.oh.us/odps/sos/ohshome.htm>

Department of Homeland Security

<http://www.whitehouse.gov/deptofhomeland/>

National Governor's Association - Homeland Security

<http://www.nga.org/center/security/>

Critical Infrastructure Assurance Office

<http://www.ciao.gov/>

National Governor's Association - Homeland Security

<http://www.nga.org/center/security/>

Water Sector Information Sharing and Analysis Center

<http://www.waterisac.org/>

National Infrastructure Protection Center

<http://www.nipcc.gov/>

For Additional Information Contact:

U.S. EPA Region 5 - Nick Damato (312) 886-0190 or Damato.Nicholas@epamail.epa.gov

Ohio EPA - Craig Smith (614) 644-2752 or Craig.Smith@epa.state.oh.us