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Security Vulnerability Self-Assessment Guide for Water Systems



*Produced for the Rural Community Assistance Partnership (RCAP) National Network
by Rural Community Assistance Corporation, Western RCAP
RCAP Safety and Security Education Program*

Security Vulnerability Self-Assessment Guide for Water Systems

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Security Vulnerability Self-Assessment Guide for Water Systems

Introduction

This Security Vulnerability Self-Assessment Guide is designed to help small water systems determine possible vulnerable components and identify security measures that should be considered. A “vulnerability assessment” is the identification of weaknesses in water system security, focusing on defined threats that could compromise its ability to provide adequate potable water, and/or water for firefighting. This document is designed particularly for systems that serve populations of 3,300 or fewer.

The Self-Assessment Guide has a simple design. Answers to assessment questions are “yes” or “no.” For any “no” answer, refer to the “comment” column and/or contact your drinking water primacy agency. Then complete the “Prioritization of Needed Actions” form (see Attachment 1) to identify and prioritize needed actions based on your assessment.

How to Use this Self-Assessment Guide

This document is designed for use by water system personnel. Physical facilities pose a high degree of exposure to any security threat. This self-assessment should be conducted on all components of your system (wellhead or surface water intake, treatment plant, storage tank(s), pumps, distribution system, and other important components of your system).

You can obtain an Emergency Response Plan manual and template from Rural Community Assistance Partnership, Inc. (RCAP) at: 888/321-7227 or on line at <http://www.rcap.org>.

Security is everyone’s responsibility. We hope this document helps you to increase the awareness of all your employees, governing officials, and customers about security issues.

Once you have completed this document, review the actions you need to take to improve your system’s security. Make sure to prioritize your actions based on the most likely threats and their potential impact.

The Requirement for a Security Vulnerability Assessment

The United States Department of Agriculture, Rural Development (USDA/RD) is requiring that all systems that receive USDA/RD funding must complete a Security Vulnerability Assessment (SVA) and Emergency Response Plan (ERP). In addition to the USDA/RD requirements, the preparation of a SVA and ERP will help improve the management of the water system and increases the ability of the system to respond to emergencies.

Keep this Document

This is a working document. Its purpose is to start your process of security vulnerability assessment and security enhancements. Security is not an end point, but a goal that can be achieved only through continued efforts to assess and upgrade your system.

Don’t forget that this is a sensitive document. It should be stored separately in a secure place at your water system. A duplicate copy should also be retained at a secure off-site location.

Access to this document should be limited to key water system personnel and local officials as well as the drinking water primacy agency and others on a need-to-know basis.

Acknowledgments

Revised by RCAC, this guide is based on materials developed by the result of collaboration among the Association of State Drinking Water Administrators (ASDWA), the U.S. Environmental Protection Agency (U.S. EPA), the U.S. EPA Drinking Water Academy, and the National Rural Water Association (NRWA).

Inventory of Water System Critical Components

Component	Number & Location (if applicable)	Description
Source Water Type		
Ground Water		
Surface Water		
Ground Water Under Direct Influence of Surface Water		
Mixed Ground and Surface Water		
Purchased		
Treatment Plant		
Buildings		
Pumps		
Treatment Equipment (e.g., basin, clearwell, filter)		
Process Controls		
Treatment Chemicals and Storage		
Laboratory Chemicals and Storage		
Storage		
Storage Tanks		
Pressure Tanks		
Power		
Primary Power		
Auxiliary Power		
Distribution System		
Pumps		
Pipes		
Valves		
Appurtenances (e.g., flush hydrants, backflow preventers, meters)		
Other Vulnerable Points		
Offices		
Buildings		
Computers		
Files		
Transportation/ Work Vehicles		
Communications		
Telephone		
Cell Phone		
Radio		
Computer Control Systems (SCADA)		

Security Vulnerability Self-Assessment for Water Systems

General Questions for the Entire Water System

The first 13 questions in this vulnerability self-assessment are general questions designed to apply to all components of your system (wellhead or surface water intake, treatment plant, storage tank(s), pumps, distribution system, and offices). These are followed by more specific questions that look at individual system components in greater detail.

1. Do you have a written emergency response plan (ERP)?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>It is essential that you have an ERP. If you do not have an ERP, you can obtain a sample from RCAP or your drinking water primacy agency.</p> <p>As a first step in developing your ERP, you should develop your Emergency Contact List. A plan is vital in case there is an incident that requires immediate response. Your plan should be reviewed at least annually (or more frequently if necessary) to ensure it is up-to-date and addresses security emergencies.</p> <p>Insert Comments Here</p>
2. Is access to the critical components of the water system (i.e., a part of the physical infrastructure of the system that is essential for water flow and/or water quality) restricted to authorized personnel only?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>You should restrict or limit access to the critical components of your water system to authorized personnel only. This is the first step in security enhancement for your water system. Consider the following:</p> <ul style="list-style-type: none"> ♦ Issue water system photo identification cards for employees, and require them to be displayed within the restricted area at all times. ♦ Post signs restricting entry to authorized personnel and ensure that assigned staff will escort people without proper ID. <p>Insert Comments Here</p>

QUESTION	ANSWER	COMMENT
<p>3. Are facilities fenced, including well houses and pump pits, and are gates locked where appropriate?</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/></p>	<p>Ideally, all facilities should have a security fence around the perimeter.</p> <p>The fence perimeter should be walked periodically to check for breaches and maintenance needs. All gates should be locked with chains and a tamper-proof padlock that at a minimum protects the shank. Other barriers such as concrete "jersey" barriers should be considered to guard certain critical components from accidental or intentional vehicle intrusion.</p> <p>Insert Comments Here</p>
<p>4. Are your doors, windows, and other points of entry such as tank and roof hatches and vents kept closed and locked?</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/></p>	<p>Lock all building doors and windows, hatches and vents, gates, and other points of entry to prevent access by unauthorized personnel. Check locks regularly. Dead bolt locks and lock guards provide a high level of security for the cost.</p> <p>A daily check of critical system components enhances security and ensures that an unauthorized entry has not taken place.</p> <p>Doors and hinges to critical facilities should be constructed of heavy-duty reinforced material. Hinges on all outside doors should be located on the inside.</p> <p>To limit access to water systems, all windows should be locked and reinforced with wire mesh or iron bars, and bolted on the inside or install alarms. Systems should ensure that this type of security meets with the requirements of any fire codes.</p> <p>Insert Comments Here</p>

QUESTION	ANSWER	COMMENT
5. Is there external lighting around the critical components of your water system?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Adequate lighting of the exterior of water systems' critical components is a good deterrent to unauthorized access and may result in the detection or deterrence of trespassers. Motion detectors that activate switches that turn lights on or trigger alarms also enhance security. Insert Comments Here
6. Are warning signs (tampering, unauthorized access, etc.) posted on all critical components of your water system? (For example, well houses and storage tanks.)	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Warning signs are an effective means to deter unauthorized access. "Warning - Tampering with this facility is a federal offense" should be posted on all water facilities. These are available from your state Rural Water Association. "Authorized Personnel Only," "Unauthorized Access Prohibited," and "Employees Only" are examples of other signs that may be useful. Insert Comments Here
7. Do you patrol and inspect your source intake, buildings, storage tanks, equipment, and other critical components?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Frequent and random patrolling of the water system by utility staff and local law enforcement agency may discourage potential tampering. It may also help identify problems that may have arisen since the previous patrol. Insert Comments Here
8. Is the area around the critical components of your water system free of objects that may be used for breaking and entering?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	When assessing the area around your water system's critical components, look for objects that could be used to gain entry (e.g., large rocks, cement blocks, pieces of wood, ladders, valve keys, and other tools). Insert Comments Here

QUESTION	ANSWER	COMMENT
9. Are the entry points to your water system easily seen?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Trim or avoid landscaping that will block your view or permit trespassers to hide, conduct unnoticed suspicious activities, or allow easy access to your system's critical components If possible, park vehicles and equipment in places where they do not block the view of your water system's critical components. Insert Comments Here
10. Do you have an alarm system that will detect unauthorized entry or attempted entry at critical components?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Consider installing an alarm system that notifies the proper authorities or your water system's designated contact for emergencies when there has been a breach of security. You should also have an audible alarm at the site as a deterrent and to notify neighbors of a potential threat. Insert Comments Here
11. Do you have a key control and accountability policy?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Keep a record of locks and associated keys, and to whom the keys have been assigned. This record will facilitate lock replacement and key management (e.g., after employee turnover or loss of keys). Vehicle and building keys should be kept in a lockbox when not in use. You should have all keys stamped (engraved) "DO NOT DUPLICATE." Insert Comments Here
12. Are entry codes and keys limited to water system personnel only?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Suppliers and personnel from co-located organizations should be denied access to codes and/or keys. Codes should be changed frequently if possible. Entry into any building should always be under the direct control of water system personnel. Insert Comments Here
13. Do you have a neighborhood watch program for your water system?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Watchful neighbors can be very helpful to a security program. Make sure they know who to call in the event of an emergency or suspicious activity. Insert Comments Here

Water Sources

In addition to the above general checklist for your entire water system (questions 1-13), you should give special attention to the following issues, presented in separate tables, related to various water system components. Your water sources (surface water intakes or wells) should be secured. Surface water supplies present the greatest challenge. Typically they encompass large land areas. Where areas cannot be secured, steps should be taken to initiate or increase law enforcement patrols. Pay particular attention to surface water intakes. Ask the public to be vigilant and report suspicious activity.

14. Are your wellheads sealed properly?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>A properly sealed wellhead decreases the opportunity for the introduction of contaminants. If you are not sure whether your wellhead is properly sealed, contact your well drilling/maintenance company, your drinking water primacy agency, or other technical assistance providers.</p> <p>Insert Comments Here</p>
15. Are well vents and caps screened and securely attached?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Properly installed vents and caps can help prevent the introduction of a contaminant into the water supply.</p> <p>Ensure that vents and caps serve their purpose, and cannot be easily breached or removed.</p> <p>Insert Comments Here</p>
16. Are observation/test and abandoned wells properly secured to prevent tampering?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>All observation/test and abandoned wells should be properly capped or secured to prevent the introduction of contaminants into the aquifer or water supply. Abandoned wells should be destroyed according to state regulations.</p> <p>Insert Comments Here</p>
17. Is your surface water source secured with fences or gates? Do water system personnel visit the source?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Surface water supplies present the greatest challenge to secure. Often, they encompass large land areas. Where areas cannot be secured, steps should be taken to initiate or increase patrols by water utility personnel and law enforcement agents.</p> <p>Insert Comments Here</p>

Treatment Plant and Suppliers

Some small systems provide easy access to their water system for suppliers of equipment, chemicals, and other materials for the convenience of both parties. This practice should be discontinued.

QUESTION	ANSWER	COMMENT
18. Are deliveries of chemicals and other supplies made in the presence of water system personnel?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Establish a policy that an authorized person, designated by the water system, must accompany all deliveries. Verify the credentials of all drivers. This prevents unauthorized personnel from having access to the water system.</p> <p>Insert Comments Here</p>
19. Have you discussed with your supplier(s) procedures to ensure the security of their products?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Verify that your suppliers take precautions to ensure that their products are not contaminated. Chain of custody procedures for delivery of chemicals should be reviewed. You should inspect chemicals and other supplies at the time of delivery to verify they are sealed and in unopened containers. Match all delivered goods with purchase orders to ensure that they were, in fact, ordered by your water system.</p> <p>You should keep a log or journal of deliveries. It should include the driver's name (taken from the driver's photo I.D.), date, time, material delivered, and the supplier's name.</p> <p>Insert Comments Here</p>
20. Are chemicals, particularly those that are potentially hazardous or flammable, properly stored in a secure area?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>All chemicals should be stored in an area designated for their storage only, and the area should be secure and access to the area restricted. Access to chemical storage should be available only to authorized employees.</p> <p>You should have tools and equipment on site (such as a fire extinguisher, drysweep, etc.) to take immediate actions when responding to an emergency.</p> <p>Insert Comments Here</p>

QUESTION	ANSWER	COMMENT
21. Do you monitor raw and treated water so that you can detect changes in water quality?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Monitoring of raw and treated water can establish a baseline that may allow you to know if there has been a contamination incident.</p> <p>Some parameters for raw water include pH, turbidity, total and fecal coliform, total organic carbon, specific conductivity, ultraviolet adsorption, color, and odor.</p> <p>Routine parameters for finished water and distribution systems include free and total chlorine residual, heterotrophic plate count (HPC), total and fecal coliform, pH, specific conductivity, color, taste, odor, and system pressure.</p> <p>Insert Comments Here</p>
22. Are tank ladders, access hatches, and entry points secured?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>The use of tamper-proof padlocks at entry points (hatches, vents, and ladder enclosures) will reduce the potential for unauthorized entry.</p> <p>If you have towers, consider putting physical barriers on the legs to prevent unauthorized climbing.</p> <p>Insert Comments Here</p>
23. Are vents and overflow pipes properly protected with screens and/or grates?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Air vents and overflow pipes are direct conduits to the finished water in storage facilities. Secure all vents and overflow pipes with heavy-duty screens and/or grates.</p> <p>Insert Comments Here</p>
24. Can you isolate the storage tank from the rest of the system?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>A water system should be able to take its storage tank(s) out of operation or drain its storage tank(s) if there is a contamination problem or structural damage.</p> <p>Install shut-off or bypass valves to allow you to isolate the storage tank in the case of a contamination problem or structural damage.</p> <p>Consider installing a sampling tap on the storage tank outlet to test water in the tank for possible contamination.</p> <p>Insert Comments Here</p>

Distribution

Hydrants are highly visible and convenient entry points into the distribution system. Maintaining and monitoring positive pressure in your system is important to provide fire protection and prevent introduction of contaminants.

QUESTION	ANSWER	COMMENT
25. Do you control the use of hydrants and valves?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Your water system should have a policy that regulates the authorized use of hydrants for purposes other than fire protection. Require authorization and backflow devices if a hydrant is used for any purpose other than fire fighting.</p> <p>Consider designating specific hydrants for use as filling station(s) with proper backflow prevention (e.g., to meet the needs of construction firms). Then, notify local law enforcement officials and the public that these are the only sites designated for this use.</p> <p>Flush hydrants should be kept locked to prevent contaminants from being introduced into the distribution system, and to prevent improper use.</p> <p>Insert Comments Here</p>
26. Does your system monitor for, and maintain, positive pressure?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Positive pressure is essential for fire fighting and for preventing backsiphonage that may contaminate finished water in the distribution system. Refer to your state primacy agency for minimum drinking water pressure requirements.</p> <p>Insert Comments Here</p>
27. Has your system implemented a backflow prevention program?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>In addition to maintaining positive pressure, backflow prevention programs provide an added margin of safety by helping to prevent the intentional introduction of contaminants. If you need information on backflow prevention programs, contact your drinking water primacy agency.</p> <p>Insert Comments Here</p>

Personnel

You should add security procedures to your personnel policies.

QUESTION	ANSWER	COMMENT
28. When hiring personnel, do you request that local police perform a criminal background check, and do you verify employment eligibility (as required by the Immigration and Naturalization Service, Form I-9)?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>It is good practice to have all job candidates fill out an employment application. You should verify professional references. Background checks conducted during the hiring process may prevent potential employee-related security issues.</p> <p>If you use contract personnel, check on the personnel practices of all providers to ensure that their hiring practices are consistent with good security practices.</p> <p>Insert Comments Here</p>
29. Are your personnel issued photo-identification cards?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>For positive identification, all personnel should be issued water system photo-identification cards and be required to display them at all times.</p> <p>Photo identification will also facilitate identification of authorized water system personnel in the event of an emergency.</p> <p>Insert Comments Here</p>
30. When terminating employment, do you require employees to turn in photo IDs, keys, access codes, and other security-related items?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Former or disgruntled employees have knowledge about the operation of your water system, and could have both the intent and physical capability to harm your system. Requiring employees who will no longer be working at your water system to turn in their IDs, keys, and access codes helps limit these types of security breaches.</p> <p>Insert Comments Here</p>

QUESTION	ANSWER	COMMENT
31. Do you use uniforms and vehicles with your water system name prominently displayed?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Requiring personnel to wear uniforms, and requiring that all vehicles prominently display the water system name, helps inform the public when water system staff is working on the system. Any observed activity by personnel without uniforms should be regarded as suspicious. The public should be encouraged to report suspicious activity to law enforcement authorities.</p> <p>Insert Comments Here</p>
32. Have water system personnel been advised to report security vulnerability concerns and to report suspicious activity?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Your personnel should be trained and knowledgeable about security issues at your facility, what to look for, and how to report any suspicious events or activity.</p> <p>Periodic meetings of authorized personnel should be held to discuss security issues.</p> <p>Insert Comments Here</p>
33. Do your personnel have a checklist to use for threats or suspicious calls or to report suspicious activity?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>To properly document suspicious or threatening phone calls or reports of suspicious activity, a simple checklist can be used to record and report all pertinent information. Calls should be reported immediately to appropriate law enforcement officials. Checklists should be available at every telephone.</p> <p>Also consider installing caller ID on your telephone system to keep a record of incoming calls.</p> <p>Insert Comments Here</p>

Information storage/computers/controls/maps

Security of the system, including computerized controls like a Supervisory Control and Data Acquisition (SCADA) system, goes beyond the physical aspects of operation. It also includes records and critical information that could be used by someone planning to disrupt or contaminate your water system.

QUESTION	ANSWER	COMMENT
34. Is computer access "password protected?" Is virus protection installed and software upgraded regularly and are your virus definitions updated at least daily? Do you have Internet firewall software installed on your computer? Do you have a plan to back up your computers?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>All computer access should be password protected. Passwords should be changed every 90 days and (as needed) following employee turnover. When possible, each individual should have a unique password that is not shared with others. If you have Internet access, a firewall protection program should be installed on your computer.</p> <p>Also consider contacting a virus protection company and subscribing to a virus update program to protect your records.</p> <p>Backing up computers regularly will help prevent the loss of data in the event that your computer is damaged or breaks. Backup copies of computer data should be made routinely and stored at a secure off-site location.</p> <p>Insert Comments Here</p>
35. Is there information on the Web that can be used to disrupt your system or contaminate your water?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Posting detailed information about your water system on a Web site may make the system more vulnerable to attack. Web sites should be examined to determine whether they contain critical information that should be removed.</p> <p>You should do a Web search (using a search engine such as Google, Yahoo!, or Lycos) using key words related to your water supply to find any published data on the Web that is easily accessible by someone who may want to damage your water supply.</p> <p>Insert Comments Here</p>

QUESTION	ANSWER	COMMENT
36. Are maps, records, and other information stored in a secure location?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Records, maps, and other information should be stored in a secure location when not in use. Access should be limited to authorized personnel only.</p> <p>You should make back-up copies of all data and sensitive documents. These should be stored in a secure off-site location on a regular basis.</p> <p>Insert Comments Here</p>
37. Are copies of records, maps, and other sensitive information labeled confidential, and are all copies controlled and returned to the water system?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Sensitive documents (e.g., schematics, maps, and plans and specifications) distributed for construction projects or other uses should be recorded and recovered after use. You should discuss measures to safeguard your documents with bidders for new projects.</p> <p>Insert Comments Here</p>
38. Are vehicles locked and secured at all times?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Vehicles are essential to any water system. They typically contain maps and other information about the operation of the water system. Water system personnel should exercise caution to ensure that this information is secure.</p> <p>Water system vehicles should be locked when they are not in use or are left unattended.</p> <p>Remove any critical information about the system before parking vehicles for the night.</p> <p>Vehicles also usually contain tools (e.g., valve wrenches) that could be used to access critical components of your water system. These tools should be secured and accounted for daily.</p> <p>Insert Comments Here</p>

Public Relations

You should educate your customers about your system. You should encourage them to be alert and to report any suspicious activity to law enforcement authorities.

QUESTION	ANSWER	COMMENT
39. Do you have a program to educate and encourage the public to be vigilant and report suspicious activity to assist in the security protection of your water system?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>Advise your customers and the public that your system has increased preventive security measures to protect the water supply from vandalism. Ask for their help. Provide customers with your telephone number and the telephone number of the local law enforcement authority so that they can report suspicious activities. The telephone number can be made available through direct mail, billing inserts, notices on community bulletin boards, flyers, and consumer confidence reports.</p> <p>Insert Comments Here</p>
40. Does your water system have a procedure to deal with public information requests, and to restrict distribution of sensitive information?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>You should have a procedure for personnel to follow when you receive an inquiry about the water system or its operation from the press, customers, or the general public.</p> <p>Your personnel should be advised not to speak to the media on behalf of the water system. Only one person should be designated as the spokesperson for the water system. Only that person should respond to media inquiries. You should establish a process for responding to inquiries from your customers and the general public.</p> <p>Insert Comments Here</p>
41. Do you have a procedure in place to receive notification of a suspected outbreak of a disease immediately after discovery by local health agencies?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>It is critical to be able to receive information about suspected problems with the water at any time and respond to them quickly. Procedures should be developed in advance with your drinking water primacy agency, local health agencies, and your local emergency planning committee.</p> <p>Insert Comments Here</p>

QUESTION	ANSWER	COMMENT
42. Do you have a procedure in place to advise the community of contamination immediately after discovery?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>As soon as possible after confirming contamination, you should notify testing personnel and your laboratory of the incident. In incidences caused by microbial or chemical contaminants, it is critical to discover the type of contaminant and its method of transport (water, food, etc.). Active testing of your water supply will enable your laboratory, working in conjunction with public health officials, to determine if there are any unique (and possibly lethal) chemicals or disease organisms in your water supply.</p> <p>It is critical to be able to get the word out to your customers as soon as possible after discovering a health hazard in your water supply. In addition to your responsibility to protect public health, you must also comply with the requirements of the Public Notification Rule. Some simple methods include announcements via radio or television, door-to-door notification, a phone tree, and posting notices in public places. The announcement should include accepted uses for the water and advice on where to obtain safe drinking water. Call large facilities that have large populations of people who might be particularly threatened by the outbreak: hospitals, nursing homes, the school district, jails, large public buildings, and large companies. Enlist the support of local emergency response personnel to assist in the effort.</p> <p>Insert Comments Here</p>
43. Do you have a procedure in place to respond immediately to a customer complaint about a new taste, odor, color, or other physical change (oily, filmy, burns on contact with skin)?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>It is critical to be able to respond to and quickly identify potential water quality problems reported by customers. Procedures should be developed in advance to investigate and identify the cause of the problem, as well as to alert local health agencies, your drinking water primacy agency, and your local emergency planning committee if you discover a problem.</p> <p>Insert Comments Here</p>

Now that you have completed the “Security Vulnerability Self-Assessment Guide for Water Systems,” review your needed actions and then prioritize them based on the most likely threats. A table to assist you in prioritizing actions is provided in Attachment 1.

Attachment 1. Prioritization of Needed Actions

Once you have completed the “Security Vulnerability Self-Assessment Guide for Drinking Water Systems,” review the actions you need to take to improve your system’s security. Note the questions to which you answered “no” on this worksheet. You can use it to summarize the areas where your system has vulnerability concerns. It can also help you prioritize the actions you should take to protect your system from vulnerabilities. Make sure to prioritize your actions based on the most likely threats to your water system and the magnitude of their risks to public health.

Question Number	Needed Action	Scheduled Completion

Attachment 2: Threat Identification Checklists

Water System Telephone Threat Identification Checklist

In the event your water system receives a threatening phone call, remain calm and try to keep the caller on the line. Use the following checklist to collect as much detail as possible about the nature of the threat and the description of the caller.

1. Types of Tampering/Threat: <input type="checkbox"/> Contamination <input type="checkbox"/> Threat to tamper <input type="checkbox"/> Biological <input type="checkbox"/> Bombs, explosives, etc. <input type="checkbox"/> Chemical <input type="checkbox"/> Other (explain)	
2. Water System Identification: Name: Address: Telephone: PWS Owner or Manager's Name:	
3. Alternate Water Source Available: Yes/No	If yes, give name and location:
4. Location of Tampering: <input type="checkbox"/> Distribution Line <input type="checkbox"/> Water Storage Facilities <input type="checkbox"/> Treatment Plant <input type="checkbox"/> Raw Water Source <input type="checkbox"/> Treatment Chemicals <input type="checkbox"/> Other (explain):	
5. Contaminant Source and Quantity:	
7. Date and Time of Tampering/Threat:	
8. Caller's Name/Alias, Address, and Telephone Number:	
9. Is the Caller (check all that apply): <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Foul <input type="checkbox"/> Illiterate <input type="checkbox"/> Well Spoken <input type="checkbox"/> Irrational <input type="checkbox"/> Incoherent	

10. Is the Caller's Voice (check all that apply):	
<input type="checkbox"/> Soft	<input type="checkbox"/> Calm
<input type="checkbox"/> Slurred	<input type="checkbox"/> Loud
<input type="checkbox"/> Deep	<input type="checkbox"/> Nasal
<input type="checkbox"/> Old	<input type="checkbox"/> High
<input type="checkbox"/> Familiar (who did it sound like?)	
<input type="checkbox"/> Accented (which nationality or region?)	
11. Is the Connection Clear? (Could it have been a wireless or cell phone?)	
12. Are There Background Noises?	
<input type="checkbox"/> Street noises (what kind?)	
<input type="checkbox"/> Machinery (what type?)	
<input type="checkbox"/> Voices (describe)	
<input type="checkbox"/> Children (describe)	
<input type="checkbox"/> Animals (what kind?)	
<input type="checkbox"/> Computer Keyboard, Office	
<input type="checkbox"/> Motors (describe)	
<input type="checkbox"/> Music (what kind?)	
<input type="checkbox"/> Other	
13. Call Received By (Name, Address, and Telephone Number):	
Date Call Received:	
Time of Call:	
14. Call Reported to:	Date/Time
15. Action(s) Taken Following Receipt of Call:	

Water System Report of Suspicious Activity

In the event personnel from your water system (or neighbors of your water system) observe suspicious activity, use the following checklist to collect as much detail as possible about the nature of the activity.

1. Types of Suspicious Activity:

- | | |
|--|--|
| <input type="checkbox"/> Breach of security systems (e.g., lock cut, door forced open) | <input type="checkbox"/> Changes in water quality noticed by customers (e.g., change in color, odor, taste) that were not planned or announced by the water system |
| <input type="checkbox"/> Unauthorized personnel on water system property. | <input type="checkbox"/> Breach of computer security (describe) |
| | <input type="checkbox"/> Other (explain) |
| <input type="checkbox"/> Presence of personnel at the water system at unusual hours | |

2. Water System Identification:

Name:

Address:

Telephone:

PWS Owner or Manager's Name:

3. Alternate Water Source Available: Yes/No

If yes, give name and location:

4. Location of Suspicious Activity:

- | | | | | |
|--|---|--|---|--|
| <input type="checkbox"/> Distribution Line | <input type="checkbox"/> Water Storage Facilities | <input type="checkbox"/> Treatment Plant | <input type="checkbox"/> Raw Water Source | <input type="checkbox"/> Treatment Chemicals |
| <input type="checkbox"/> Other (explain): | | | | |

5. If Breach of Security, What was the Nature of the Breach?

☐ Lock was cut or broken, permitting unauthorized entry.

Specify location

☐ Lock was tampered with, but not sufficiently to allow unauthorized entry.

Specify location

☐ Door, gate, window, or any other point of entry (vent, hatch, etc.) was open and unsecured.

Specify location

☐ Other

Specify nature and location

6. Unauthorized personnel on site?

Where were these people?

Specify location

What made them suspicious?

☐ Not wearing water system uniforms

☐ Something else? (Specify)

What were they doing?

7. Please describe these personnel (height, weight, hair color, clothes, facial hair, any distinguishing marks):

8. Call Received By (Name, Address, and Telephone Number):

Date Call Received:

Time of Call:

9. Call Reported to:

Date/Time:

10. Action(s) Taken Following Receipt of Call:

Attachment 3: Certificate of Completion

I certify to the United States Department of Agriculture, Rural Development (USDA/RD) that this community water system has completed a Security Vulnerability Assessment (SVA), and that the results will be incorporated into an Emergency Response Plan for the system.

I certify that this document was prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information (Safe Drinking Water Act (42U.S.C. 300f et seq.)).

Mail the completed certificate only (do not send your SVA or ERP) to the appropriate USDA Rural Development office.

Public Water System ID Number: _____

System Name: _____

Address: _____

Print Name of Person Authorized to Sign this Certification on behalf of the System:

_____ **Title:** _____

Signature: _____

Phone: _____ **Fax:** _____ **Email:** _____

Received Technical Assistance from the following:

- ☐ Rural Community Assistance Partnership
(CRG, Great Lakes RCAP/WSOS, MAP, RCAC, RCAP Solutions, Southeast RCAP)
- ☐ Rural Water Association

Have completed the following:

- ☐ Security Vulnerability Assessment
- ☐ Emergency Response Plan

Disclaimer

This document contains information on how to plan for protection of the assets of your water system. The work necessarily addresses problems in a general nature. You should review local, state, tribal (if applicable), and federal laws and regulations to see how they apply to your specific situation.

Knowledgeable professionals prepared this document using current information. The authors make no representation, expressed or implied, that this information is suitable for any specific situation. The authors have no obligation to update this work or to make notification of any changes in statutes, regulations, information, or programs described in this document. Publication of this document does not replace the duty of water systems to warn and properly train their employees and others concerning health and safety risks and necessary precautions at their water systems.

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