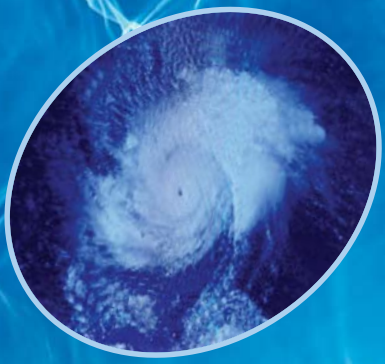
Public Drinking Water Security & Emergency Response Guide



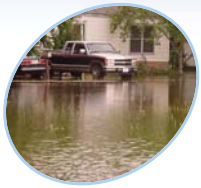
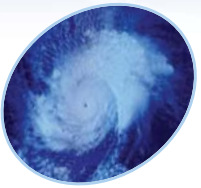
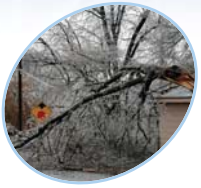
Keeping Connecticut Healthy

DPH

Connecticut Department of Public Health

STATE OF CONNECTICUT
Department of Public Health
Drinking Water Section
Fall 2009

Public Drinking Water
Security & Emergency Response Guide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"Be Prepared... the meaning of the motto is that a scout must prepare himself by previous thinking out and practicing how to act on any accident or emergency so that he is never taken by surprise."

Sir Robert Baden-Powell (1857-1941)
British Army Officer, founder of the Boy Scouts of America

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Introduction

Contamination of a public drinking water system can cause illness, disease, or even death. A water system can be contaminated, damaged or disrupted through natural events, intentional terrorist or criminal actions, by an accident, or deficient infrastructure. Intentional contamination poses one of the most serious threats to a public drinking water system because of the intent to cause harm or damage.

When a contamination threat is received or an incident occurs, it is critical that you act quickly and effectively to protect public health and the environment.

This handbook includes guidance information, references and resources that should be used in conjunction with your utility's existing emergency response plan for quickly and effectively responding to contamination incidents, even in situations where information may be limited or unavailable.

The first actions you take during a drinking water incident or threat of contamination can have an adverse impact on a public drinking water system if improperly handled. This should be of particular concern due to the range of potential consequences.

Potential consequences:

1. Creating an adverse impact on public health.
2. Disrupting system operations and interrupting the supply of safe water.
3. Causing physical damage to the system.
4. Reducing public confidence in the drinking water supply.
5. Long-term denial of water and the cost of remediation and replacement.
6. Loss of water for fire protection.

Planning and communication are critical to the success of emergency response and recovery efforts. Sustained communication to all stakeholders is vital. Managers and employees should meet regularly to review the emergency response plan, determine how it will be carried out and what the roles are of employees and management. Getting everyone involved in exercising your emergency response plan can improve your chances of recovery from any type of contamination incident or threat.

The effectiveness of your plan during emergencies depends on the amount of planning and training provided. Management must support emergency planning and training, and be directly involved in employees' roles in emergencies, in minimizing negative impact, and above all protecting public health.

The Requirement for a Water Supply Emergency Contingency Plan

The Regulations of Connecticut State Agencies Section 25-32(d)-3(d), requires **each water company supplying water to 1,000 or more persons or 250 or more consumers, to have a water supply emergency contingency plan** as part of a water supply plan. The plan should identify critical system components and establish procedures for sabotage prevention and response.

To be able to respond to any type of emergency, your plan should utilize an all-hazards approach that encompasses the multitude of possible crises, from natural disasters to acts of terrorism, that might face your public drinking water system. Your plan should address how you will respond to emergencies that would suddenly and significantly affect your operations and public health. It should include the following key elements:

1. Specific procedures to respond to and recover from emergencies
2. The chain of command in an emergency within the public drinking water system organization and its links with federal, state and local emergency response units
3. A communication protocol to ensure that accurate and up-to-date information is provided in a timely manner
4. Defined roles and responsibilities for those assigned to respond in an emergency.

What is extremely important is that you work with local authorities and other stakeholder agencies and organizations so that they are aware of your plan and are able to provide a coordinated response. Your plan should be distributed to those individuals identified in your water system organizational chart who are responsible for responding in an emergency.

You should encourage all members of your staff to prepare a "family emergency plan." While we all hope that we will not be faced with the need to implement an emergency plan, it is necessary to be fully prepared.

CT Flooding

The black and white photos above left and right, are used with the approval of the Connecticut State Library and are from its digital collection, "The Connecticut Floods of 1955: A Fifty Year Perspective."

A General Plan for Threat Response and Management

Consider the following:

- Evaluate the threat
- Take necessary steps to protect public health while the threat is being evaluated
- Confirm the threat
- Remediate the water system if necessary; and,
- Return the system to safe, normal operations as soon as possible.

The response to a contamination threat or incident should be efficiently managed and involves a number of steps and decisions. The most important lesson is to understand these key elements and how to proceed from one step to the next to achieve these goals.

See chart on next page.

Threat Warning

A threat warning is an indication that something may be wrong. Examples of different threat warnings that may be classified as 'possible' are:

- **Security breach** - evidence of an unauthorized entry into a secured facility, such as an alarm, cut fence, etc.
- **Witness account** - someone directly witnesses suspicious activity and notifies the utility.
- **Direct notification by perpetrator** - the perpetrator sends a verbal or written threat to the utility.
- **Notification by news media** - a threat is sent to the media, or the media may learn of a threat and pass it on to the utility.
- **Notification by law enforcement** - a law enforcement agency may pass along information about a threat to utility.
- **Unusual water quality** - on-line monitoring, grab sampling or an early warning system indicate unusual water quality results.
- **Consumer complaints** - an unusual or unexplained increase in consumer complaints may indicate contamination.
- **Notification by public health agencies** - health agencies or health care providers observe increased illness, disease or death rates, which may indicate a contaminated water supply.

How much time do I have to decide if a threat is 'possible' or 'credible' or nothing at all?

Speed is critical in protecting public health. Once a threat warning is received, you should call "911" and report it to local law enforcement and/or fire safety officials (First Responders).

You should decide if a threat is 'possible' within 1 hour from the time you receive the threat warning. You may have to make a decision based on limited information. **Once you've decided the threat is 'possible', you should determine whether the threat is also 'credible', within 2 to 8 hours, with local law enforcement personnel. Steps to protect public health should be implemented while the threat is being evaluated.**

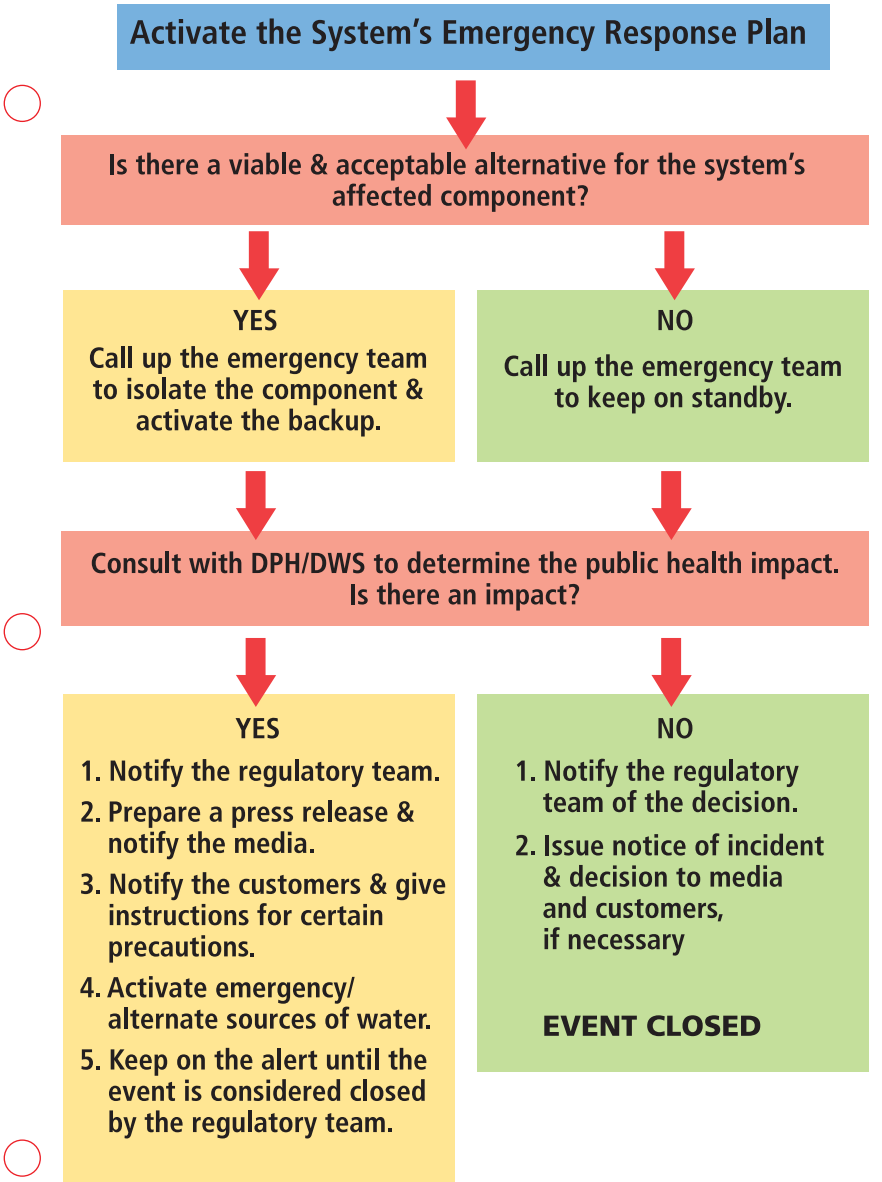
Who do I notify?

Once you decide that a threat is 'possible' or 'credible', you should notify the Connecticut State Police Dispatch at 1-800-842-0200.

Notify utility staff and CT DPH, Drinking Water Section staff.
If the event is terrorism related than first responders must also call the local FBI office at 203-503-5000.

The public drinking water system should activate their Emergency Response Plan, Connecticut's reporting requirements should be followed once it's been determined that the threat is credible. *(see flow chart for responding to a credible incident).*

Flow Chart for Responding to a Credible Incident



19-13-B46. Notification by water officials in water supply emergencies

Whenever the security of a public water system is threatened or suspicious activities are observed on or near water company land or the treatment of a public water supply is interrupted or the source of supply is damaged so as to impair the quality or the sufficiency of the supply, the person, firm or corporation in charge of such public water system shall immediately notify the CT State Department of Public Health and the local directors of health of all cities, towns and boroughs where water from such systems is supplied. Such notification shall be made immediately either by telephone or messenger or whatever other means of rapid communication is available.

It is necessary to speak to a staff person at the Connecticut Department of Public Health to fulfill compliance with notification requirements in the event your public water system has a water-related emergency!

To report a public drinking water-related emergency…
Call 860.509.7333

(Monday - Friday, 8:30 a.m. - 4:30 p.m.) or
Call 860.509.8000 (24 Hours/7 Days)

Water Quality Monitoring Recommendations

The CT DPH recommends the following operational response to increase monitoring during a drinking water emergency:

- Monitor finished water continuously for chlorine, pH, turbidity, temperature (as per Section 19-13-B102(j) of the Regulations of CT State Agencies).

- Monitor finished water routinely for coliform bacteria, color, odor, alkalinity, specific conductance and other appropriate parameters depending on the nature of the incident.

- Monitor finished water daily for chlorine, pH and other applicable parameters as required per Section 19-13-B102 of the Regulations of CT State Agencies.

Contact with contaminated water, soil or other materials may pose serious threats to your health or safety and that of other water utility staff, emergency responders, laboratory staff or others. **Anyone who may be collecting, handling or analyzing samples that may contain unknown contaminants should plan ahead of time to ensure their own safety and that of their staff.**

Local, Regional, and State Coordinated Response

The majority of threats and incidents will likely be handled by individual utilities working together with their local responder network. Some incidents may be elevated to the state and/or federal level, especially incidents involving terrorism or an incident of national significance.

During an incident of larger magnitude, the National Incident Management System, or NIMS, further defines roles and responsibilities. Connecticut requires all state agencies, regional, and local responders involved in statewide response planning to have NIMS training. The CT DPH recommends all public water systems also understand the components of NIMS in order to effectively coordinate response activities with federal, state and local responders.

NIMS has established standardized incident management processes and procedures that all responders (federal, state, tribal, and local) will use to coordinate and conduct response actions. Your understanding of the use of those procedures should enable you to focus on incident management when a water emergency incident occurs. These procedures apply whether the incident is related to terrorism, an accident or a natural disaster.

Events such as terrorist attacks, accidents or nationally significant natural disasters in which successful management requires the involvement of emergency responders from multiple jurisdictions require effective and efficient coordination. The Incident Command System (ICS) provides the framework to achieve this coordination. Understanding the use of ICS is required under NIMS. FEMA's online courses on ICS include ICS-100 (Introduction to the ICS), and ICS-200 (Basic ICS). There is also ICS-100.PW (Introduction to the ICS for Public Works). **www.fema.gov/nims/**

Federal, State and Local Roles:

The Incident Command System (ICS)

Under NIMS, the ICS is the national standard for the command, control, and coordination of a response. The nature of the ICS structure allows for the numbers and types of people on the response team to change over time as the need for resources change. The ICS organization can expand or contract to address a particular incident, but **all incidents, regardless of their size or complexity, will initially have a single Incident Commander. The Incident Commander is the individual responsible for managing the overall response to the crisis.**

The Incident Commander frequently oversees a group of people, often from his/her own organization as well as others responsible to respond to the event.

Local Role: Incident Command at the Water Utility

If a threat or incident is first discovered by water utility personnel, he/she or an appropriate designated person should be the Incident Commander, at least initially. As additional responders arrive in response to your notifications, command may transfer to an agency that has primary authority for overall control of the threat or incident. At the transfer of command, you should give the incoming Incident Commander a full briefing and notify all staff of the change in command.

State Role: The Expansion of the ICS Structure

As the scope of an incident is defined, the size and complexity of the incident may require state and federal resources. The ICS command structure is designed to expand and contract as an incident evolves. Resources on the state level that may be involved in a response include, but are not limited to:

- DPH - Drinking Water Section - WEAR Team
- DPH - Public Health Preparedness
- Department of Emergency Management and Homeland Security
- Connecticut State Police
- Department of Environmental Protection - Emergency Response Unit

Federal Role: Mobilization of Federal Resources

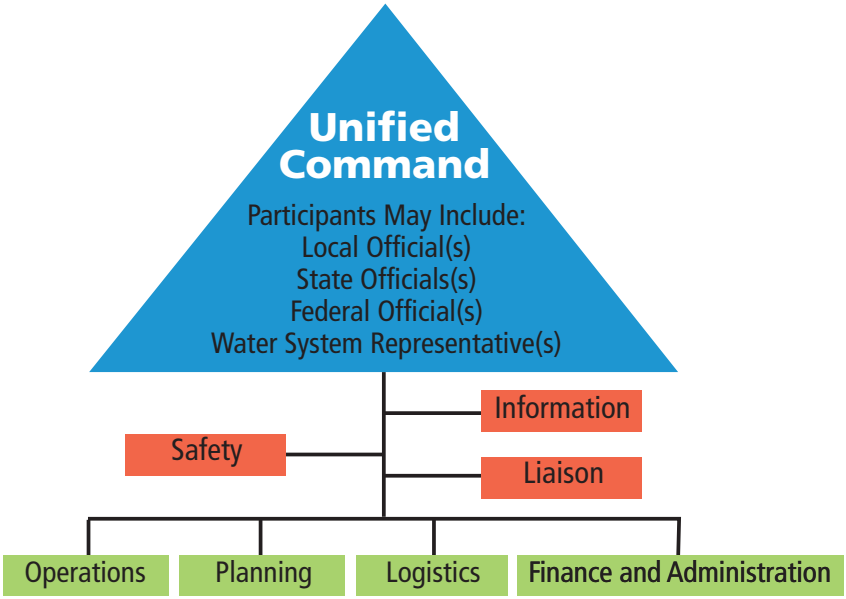
Incidents of national significance require a response from the federal government. Incidents of such size and complexity, again, will rely on the ICS command structure to manage the response and the significant resources that will be involved and required. Especially terrorist attacks, the federal government, mainly the FBI, will assume the incident commander role and lead the response. Significant natural disasters will also require a response from the federal government. In all cases, however, the initial response will be local so the transfer of command and planning on all levels is critical. Federal resources that may be involved in an incident response include, but are not limited to:

- Department of Homeland Security
- Federal Emergency Management Agency
- Federal Bureau of Investigation
- Environmental Protection Agency
- Department of Justice

Unified Command

In most cases, more than one organization or agency has jurisdiction or statutory authority in managing a response, and a Unified Command may be established. Unified Command is a team effort that allows all agencies with responsibility for the incident, either geographic or functional, to manage an incident together by establishing a common set of incident goals and strategies. Unified Command not only coordinates the efforts of many jurisdictions, but ensures joint decisions on plans, priorities and public communications. Unified Command does not have a single Incident Commander; instead, representatives from several responding agencies contribute to the command process.

Unified Command does not mean losing or giving up an individual agency's authority, responsibility, or accountability.



Crisis and Emergency Risk Communication

One model of communication known as crisis and emergency risk communication (CERC) has been endorsed by the Centers for Disease Control and Prevention and has been adopted by the CT DPH. The communication activities that should occur at various stages of disaster or crisis development are outlined. Although crises are by definition uncertain and often chaotic situations, the CERC model is presented as a tool health communicators can use to help manage these complex events.

In addition to fundamental risk communication skills, public drinking water systems must be aware of the minimum public notification requirements within the regulations of the CT State Agencies Section 19-13-B102.

I. Pre-Crisis-Risk Messages, Warnings, Preparations

Communication and educational campaigns targeted to both the public and the response community to facilitate:

- ✔ Monitoring and recognition of risks
- ✔ General public understanding of risks
- ✔ Public preparation for the possibility of an adverse event
- ✔ Changes in behavior to reduce the likelihood of harm
- ✔ Specific warning messages regarding some eminent threat
- ✔ Alliances and cooperation with agencies, organizations and groups
- ✔ Development of consensual recommendations by experts and first responders

II. Initial Event - Uncertainty Reduction, Self-efficacy, Reassurance

Rapid communication to the general public and to affected groups seeking to establish:

- ✔ Reassurance, empathy, reduction of emotional turmoil and uncertainty
- ✔ Designated spokespersons and methods of communication
- ✔ General understanding of the crisis and anticipated outcome based on available information
- ✔ Specific understanding of emergency management and medical community responses

III. Maintenance - Ongoing Uncertainty Reduction, Self-efficacy, Reassurance

Communication to the general public and to affected groups seeking to facilitate:

- ✔ More accurate public understanding of ongoing risks
- ✔ Support and cooperation with response and recovery efforts
- ✔ Feedback from affected public and correction of any misunderstanding
- ✔ Ongoing explanation of how and where to get more information
- ✔ Informed decision making by the public based on understanding of risks/benefits

IV. Resolution - Updates Regarding Resolution; Discussions about Cause and New Risks/New Understanding of Risk

Public communication and campaigns directed toward the general public and affected groups seeking to:

- ✔ Inform about ongoing cleanup, recovery, and rebuilding efforts
- ✔ Facilitate honest, open discussion and resolution of issues regarding cause, responsibility and response
- ✔ Improve/create public understanding of new risks
- ✔ Promote the activities and capabilities of agencies to reinforce positive image

V. Evaluation - Discussion of Adequacy of Response, Consensus About Lessons and Understanding of Risks

Communication directed toward agencies and the response community to:

- ✔ Evaluate and assess responses, including communication effectiveness
- ✔ Document and communicate lessons learned
- ✔ Determine specific actions to improve crisis communication and response capability

The tragedies of September 11, 2001 and the subsequent anthrax attacks heightened awareness of the need to enhance risk and crisis communication skills. The threat of chemical and biological weapons and the risk posed to human populations presents a need for public health agencies to assess and elevate their level of communication preparedness for all risk and crisis scenarios. Public drinking water systems also must maintain an elevated level of communication preparedness both to comply with regulatory requirements relative to public notification and risk communication associated with intentional acts of terrorism and natural disasters.

The following is a *checklist of best practices:*

Best Practice 1. Accept and Involve Stakeholders as Legitimate Partners

- ✔ Before taking action, find out what people know, think or want
- ✔ Demonstrate respect for persons affected by risk management decisions by involving them early, before important decisions are made
- ✔ Involve all parties that have an interest or a stake in the particular risk
- ✔ Include in the decision-making process the broad range of factors involved in determining public perceptions of risk, concern and outrage
- ✔ Adhere to the highest ethical standards and recognize that people hold you professionally and ethically accountable!
- ✔ Strive for mutually beneficial outcomes

Best Practice 2. Listen to People

- ✔ Before taking action, find out what people know, think, or want done about risks. Use techniques such as interviews, discussion groups, toll-free numbers and surveys
- ✔ Let all parties with an interest or a stake in the issue be heard
- ✔ Let people know that what they said has been understood and tell them what actions will follow
- ✔ Empathize with your audience and try to put yourself in their place
- ✔ Acknowledge the validity of people's emotions
- ✔ Emphasize communication channels that encourage listening and dialogue

Best Practice 3. Be Truthful, Honest and Open

- ✔ Disclose information as soon as possible
- ✔ If information is evolving or incomplete, be truthful about its reliability
- ✔ If in doubt, lean toward sharing more information, not less - or people may think something is being withheld
- ✔ If you don't know or are unsure about an answer, express willingness to get back to the questioner with a response by an agreed upon deadline - Do not speculate!
- ✔ Do not minimize or exaggerate the risk
- ✔ If errors are made correct them quickly!

Best Practice 4. Coordinate, Collaborate, and Partner with Other Credible Sources

- ✔ Coordinate all communications
- ✔ Devote efforts and resources to build partnerships with other organizations
- ✔ Use credible intermediaries between you and your target audience
- ✔ Consult with others to decide who is best able to take the lead in responding to concerns and document those decisions
- ✔ Cite credible sources that believe what you believe

Best Practice 5. Meet the Needs of the Media

- ✔ Be accessible to reporters, respect their deadlines
- ✔ Prepare a limited number of key messages before media interactions
- ✔ Take control of the interview and repeat your key messages several times
- ✔ Keep interviews short, agree with the reporter in advance about the topic of the interview and stick to that topic
- ✔ Say what you want the media to repeat, everything you say is on the record!
- ✔ Tell the truth!
- ✔ Provide background material
- ✔ Be aware of "trap" questions
- ✔ Avoid saying "no comment"
- ✔ Follow up on stories with praise or criticism, as warranted
- ✔ Work to establish long-term relationships with reporters

Best Practice 6. Communicate Clearly and with Compassion

- ✔ Use clear, non-technical language
- ✔ Use graphics to clarify messages
- ✔ Do not embarrass people
- ✔ Respect the unique communication needs of diverse audiences
- ✔ Express genuine empathy
- ✔ Acknowledge that any illness, injury, or death is a tragedy and acknowledge and respond to emotions such as anxiety, fear, anger and helplessness
- ✔ Use comparisons to help put risks in perspective taking into account what the public considers important
- ✔ Identify specific actions that people can take to protect themselves and to maintain control of the situation
- ✔ Always try to include a discussion of actions that are underway
- ✔ Strive for brevity, but respect requests for information and offer to provide answers within a specified timeframe
- ✔ Only promise what you can deliver, then follow through!
- ✔ Understand that trust must be earned!

Best Practice 7. Plan Thoroughly and Carefully

- ✔ Begin with clean, explicit objectives:
  - ❖ Provide information
  - ❖ Establish trust
  - ❖ Establish appropriate actions
  - ❖ Initiate emergency response
  - ❖ Involve stakeholders in dialogue
- ✔ Design communications for specific audiences
- ✔ Recruit spokespersons with effective presentation skills
- ✔ Train staff in basic, intermediate and advanced risk and crisis communication skills; recognize and reward outstanding performance
- ✔ Anticipate questions and issues
- ✔ Prepare and pretest messages
- ✔ Share what you have learned with others!

Practical Water Security Guidelines

The following are basic security requirements and guidelines that should be considered by CT's public drinking water systems.

Watershed & Reservoirs:

Conduct a comprehensive annual inspection of all properties within the watershed area pursuant to Section 19-13-B102(b) of the Regulations of CT State Agencies.

Conduct routine inspections of all means of access to water storage reservoirs.

Conduct routine inspections, at random hours, of the distribution reservoir and its shoreline.

Conduct daily monitoring of the distribution reservoir's raw water for baseline parameters (i.e. pH, color, turbidity, alkalinity, temperature, hardness, specific conductance, odor).

Water Intake:

Area near the intake when feasible, should be fenced, securely gated and fitted with "No Trespassing" signs.

Conduct routine inspections, at random hours, of the intake and immediate fenced area; or video surveillance should be considered.

Wells and Wellfields:

Access to wells or well fields, when feasible, should be restricted and area(s) posted with "No Trespassing" signs.

Conduct daily inspections of the wells and well field. Wells should be equipped with watertight well caps as per Section 19-13-B51(j)(a) of the Regulations of CT State Agencies and each well or cluster of wells should be secured.

Exposed electrical connections to wells should be housed in steel conduit, protected against vandalism.

When public access or recreation is permitted within watershed or aquifer protection areas and in proximity to facilities associated with sources of supply, signs with appropriate contact information requesting the prompt report of all suspicious or abnormal activities should be posted in conspicuous locations throughout the area.

Well or Pump House Building:

Perimeter of the building should be landscaped in such a way to improve visibility of the facility and motion sensor lights, when feasible, should be considered.

Conduct routine inspections of all active well houses and/or pump houses. Building doors should have locks that are protected against tampering or cutting and are properly hinged and fitted with metal plates.

The delivery of fuel, chemicals and supplies to the site should be monitored by authorized personnel.

Treatment Plant:

The entire perimeter of the plant should be protected, securely gated and locked, and fitted with "No Trespassing" signs. Critical outdoor components should be fenced.

Intrusion or video surveillance of the perimeter should be provided. Only authorized personnel should be allowed within the perimeter. Unauthorized entry should alert appropriate personnel.

Chemical deliveries should be examined by a certified/qualified operator, using an established acceptance protocol, before accepting the deliveries.

Provide 24-hour availability of operators at the plant.

Key treatment components should be routinely checked and a logbook signed to verify the check.

Monitor finished water continuously for chlorine, pH, turbidity, temperature. The treatment facility should be equipped with operational alarms in the event of a treatment malfunction.

Monitor finished water routinely for color, odor, alkalinity and specific conductance.

Storage Tanks & Clearwells:

Access to tanks should be restricted, perimeter fenced and securely gated. Fence(s) should be posted with "No Trespassing" signs. Tanks and the facility's perimeter should be inspected daily, or electronic surveillance provided.

Venting and overflow systems should be made tamper-proof so they can only be removed by a cutting torch and fitted with a fine-mesh screening device or equivalent means of protection as required under Section 19-13-B02 (f)(5) of the Regulations of CT State Agencies.

Entry or maintenance hatches should tightly fit the opening area, be in good condition with no air gaps or cracks, and be securely locked with the lock housed to prevent tampering. Ladders to top of storage tanks should be positioned so that unauthorized access is not possible.

Sampling taps should be provided at all storage facilities to allow for the collection of water quality samples during an emergency.

Pump and Booster Stations:

The physical and automated security of the pump and booster station within the distribution system should be maintained on a continuous basis. Doors, windows and hatches should be locked and secured with tamper-proof locks. Security systems, including intrusion alarms and motion detectors, should be provided to alert personnel if any unauthorized access is detected. The perimeter should also be fenced and gated, where feasible.

Pump and booster stations should be inspected on a routine basis depending on the level of security provided. Fences and buildings should be posted with "No Trespassing" signs with appropriate contact information requesting the prompt report of all suspicious or abnormal activities.

Valves, Hydrants & Distribution System:

Critical valve covers should be equipped with tamperproof mechanisms. Critical hydrants should be tamperproof. Pressure sensors and continuous water quality analyzers should be considered for critical sections within the distribution system as the technology to do so becomes available.

Conduct a comprehensive cross connection survey of the distribution system per Section 19-13-B102(f)(2) of the Regulations of CT State Agencies.

Critical isolation valves throughout the distribution system should be routinely exercised per Section B102(f)(2) of the Regulations of CT State Agencies so that they can be operated during an emergency.

Instrumentation:

The Supervisory Control and Data Acquisition system, (SCADA) should be in a secured location and protected against unauthorized use.

System operation:

System operators should be thoroughly familiar with normal or expected ranges for all routine water quality parameters for raw, finished and distribution water.

Develop a tracking log for distribution system water quality complaints as required under Section 19-13-B102 (l)(1)(f) of the Regulations of the CT State Agencies. Highly unusual or clustered complaints should be promptly investigated.

"It's the sense of duty that keeps you going sometimes when things get very, very rough. Somebody's gotta do it. And if you don't, who will?"

H. Norman Schwarzkopf, Jr.
United States Army Commander during the Gulf War in Iraq 1991

Pandemic and Natural Disaster Planning

The threat of a pandemic outbreak is something that public drinking water supply systems need to take seriously.

The US Health and Human Services (HHS) research reports that widespread flu could cause a company to lose between 40% to 60% of its workforce for a period of many months.

A natural disaster such as a hurricane can cause similar workforce shortages and disruptions in the supply chain of critical equipment and materials.

To continue operations, emergency and security managers should be putting plans into place now. A good plan could save your water system and protect public health.

As part of the U.S. Government's pandemic preparedness strategy, the Department of Homeland Security supports all efforts to develop and execute essential contingency plans.

Each and every public drinking water system should examine each element of its organization to ensure that basic operations are maintained with limited staffing while providing safe drinking water to customers. Whether your population served is 100 or 150,000 - the ability to sustain operations will be challenged.

In the event of pandemic influenza, businesses and other employers will play a key role in protecting employees' health and safety as well as limiting the negative impact to the economy and society.

Planning for pandemic influenza is critical. Companies that provide critical infrastructure services, such as public drinking water, have a special responsibility to plan for continued operations in a crisis. As with any catastrophe, having a contingency plan is essential. Community strategies that delay or reduce the impact of a pandemic (also called non-pharmaceutical interventions) may help reduce the spread of disease until a vaccine is available.

During a natural disaster or pandemic emergency, it should be assumed that water systems could have severe shortages in staffing and disruptions in the supply chain. There is also potential for disruption of communications, transportation, delivery services, utilities and public safety.

Mutual Aid

Mutual aid and assistance agreements between water and wastewater utilities are critical elements to maintaining critical services and resiliency during an emergency. Mutual aid networks such as CtWarn, the Connecticut Water/Wastewater Agency Response Network, have been used during isolated, small scale incidents and large emergencies of national significance to provide additional resources and assistance when a water/wastewater utility's resources are overwhelmed. WARNs have been established within states across the country and have been activated, tested and proven to provide critical resources to utilities, from utilities, in the most dire of circumstances. Visit **www.ctwarn.org** for more information.

Update Your Emergency Response Plan

The EPA has developed the following 10 tips for updating your Emergency Response Plan (ERP):

10. Review Your ERP
Review and update your emergency response plan, including identification of critical functions and supplies that will need coverage. Plan for operating with severe staff shortages (40-60%).

9. Prepare Yourself
Prepare yourself, your family and your home first **(see "Are You Ready?" and CDC guides: www.cdc.gov/flu/pandemic/healthtips.htm,** or **www.ready.gov**). Have policies in place that allow workers to take care of families, but still provide adequate staffing.

8. Examine Workforce Alternatives
Examine workforce alternatives: mutual aid agreements, contingency plans with contract operators, and cross training. Evaluate and test safe and secure use of automation. (e.g., SCADA)

7. Collect Utility Information
Create and maintain both an on-site and off-site emergency kit. Compile emergency contacts, updated utility diagrams/maps of the system, standard operating procedures, and critical customer information. Also, maintain extra sets of facility keys at multiple secure locations.

6. Conduct a "Walk Through"
Conduct a "walk through" of your facility with local emergency responders and alternate operators. Make sure all valves and equipment are clearly and accurately labeled.

5. Have a Communications Strategy
Include ways to communicate emergency information. Develop standard language for various public notices, including: Do Not Drink, Boil Water Notices, etc.

4. Stock Supplies
Stock supplies and chemicals safely and securely. If space is an issue, have backup vendor contact information up-to-date and available. Ensure that all applicable regulations are observed when storing chemicals on-site.

3. Exercise Generators

Exercise emergency generators. Also have plans in place for receiving fuel in an emergency.

2. Employee Preparations
Consider preparations for employees remaining at work for extended periods. This could include adequate sleeping arrangements, food, water, medical supplies, communication links, etc.

1. Practice

Practice, practice, practice your **Emergency Response Plan!**

and **KEEP WASHING YOUR HANDS!**

Hand washing is an effective means of reducing the spread of the influenza virus (the flu) and other infections. However simple, this measure is still often neglected.

Emergency, Security, and Risk Communication Resources for Public Drinking Water Systems

U.S. Environmental Protection Agency EPA Drinking Water Security in New England -

A website to assist New England medium and small public water suppliers with security and emergency planning resources and guidance.

http://www.epa.gov/region01/eco/drinkwater/dw security.html

EPA Water Infrastructure Security -

This Web site provides resources for water utilities, state and local governments, public health officials, emergency responders and planners, assistance and training providers, environmental professionals, researchers and engineers, and law enforcement, among others.

http://cfpub.epa.gov/safewater/watersecurity/index.cfm

EPA Security Product Guide -

EPA has developed a series of Security Product Guides to assist treatment plant operators and utility managers in reducing risks from, and providing protection against, possible natural disasters and intentional terrorist attacks.

http://cfpub.epa.gov/safewater/watersecurity/guide/

Public Drinking Water

Security & Emergency Response Guide

The following pages
can be used as a

"Quick Reference Guide"

You should complete any
contact information
pertaining to your
particular situation
PRIOR
to an emergency

Public Drinking Water

Security & Emergency Response Guide

"Quick Reference Guide"

You should complete any contact information pertaining to your particular situation **PRIOR** to an emergency

Table of Contents

Keeping Connecticut Healthy
DPH
Connecticut Department of Public Health

STATE OF CONNECTICUT
Department of Public Health
Drinking Water Section
Fall 2009

Contact Information

Water System Emergency Response Team

Fast, reliable communication is the key to success in coordinating a public health response. Before an incident occurs, water utilities should develop a communication and notification plan.

Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

First Responder Contacts

You can use the following websites to search for the specific first responder contact information for your water system -

For any emergency requiring local response you should first call 911

Local Police _____

Emergency Number 911 _____

Non-Emergency Number _____

State Police _____

Emergency Number _____

Non-Emergency Number _____

Fire Department _____

Emergency Number _____

Non-Emergency Number _____

FBI Regional Office _____

Emergency Number _____

Non-Emergency Number _____

CT DEP HazMat Spill Response _____

Emergency Number _____

Regulatory Contacts

State of Connecticut

www.ct.gov

CT Department of Public Health
Drinking Water Section:

8:30-4:30 M-F: 860.509.7333

Emergency Number After Hours - **860. 509.8000**

CT Department of
Environmental Protection:

8:30-4:30 M-F: 860.424.3338

Emergency Number After Hours - **1.866.DEP.SPIL**

CT Department of Emergency Management
and Homeland Security:

1.800.397.8876

CT Department of Public Utility Control:

1.800.382.4586

Federal Contacts

US Environmental Protection Agency

www.epa.gov

1.800.426.4791

US Department of Homeland Security

www.dhs.gov

202.282.8000

Federal Emergency Management Agency

www.fema.gov

1.800.621.FEMA

Media Contacts

Fast, reliable communication is the key to success in coordinating a public health response. Before an incident occurs, water utilities should develop a communication and notification plan. Communication and notification plans should include State agencies, utility staff and customers, the public, and the media. In a crisis, your message to employees and the media should be:

Simple - Frightened people do not want to hear big words.

Timely - Frightened people want information now.

Accurate - Frightened people want to know the truth, so give it straight.

Relevant - Answer their questions and give action steps.

Credible -Empathy and openness are your keys to credibility.

Consistent - The slightest change in the message is upsetting.

You can use the following websites to find media contact information for your water system

Newspapers

http://www.usnpl.com
http://www.gebbieinc.com/daily/ct.htm
http://www.gebbieinc.com/Weekly/ct.htm

Radio Stations

http://www.radio-locator.com

Television Stations

http://www.gebbieinc.com/tv/ct.htm

Technical Experts/Service Providers

Consulting Engineer

Contact Name and Organization _____

_____

Resource for: _____

Working Hours Phone Number _____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number _____

Email _____

Technical Service Provider

Contact Name and Organization _____

_____

Resource for: _____

Working Hours Phone Number _____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number _____

Email _____

Newspapers

Name: _____
Contact Person _____
Title/Function _____
Telephone _____
Cell Phone _____
Beeper Number _____
Email _____

Name: _____
Contact Person _____
Title/Function _____
Telephone _____
Cell Phone _____
Beeper Number _____

Name: _____
Contact Person _____
Title/Function _____
Telephone _____
Cell Phone _____
Beeper Number _____
Email _____

Email _____

Television Stations

Channel _____
Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Channel _____
Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Channel _____
Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Radio Stations

Station _____
Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Station _____
Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Station _____
Contact Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Regional Utilities and Contractors

You can use the following website to find the specific contact information for licensed utilities that serve your water system:

www.ct.gov/dcp

Electric Utility

Contact _____
Emergency Phone Number _____
Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Gas Company

Contact _____
Emergency Phone Number _____
Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Oil Company _____

Contact _____
Emergency Phone Number _____
Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Excavation Service _____

Contact _____
Emergency Phone Number _____
Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

Communication Company _____

Contact _____
Emergency Phone Number _____
Person _____
Title/Function _____
Working Hours Phone Number _____
Cell Phone Number _____
Beeper Number _____
Email _____

State Approved Laboratories

The CT Department of Public Health's Environmental Laboratory Certification Program provides a list of certified laboratories in CT. To access that list go to **www.ct.gov/dph**

Primary Laboratory _____

Contact _____

Emergency Phone Number _____
Person_____
Title/Function _____
Working Hours Phone Number_____
Cell Phone Number _____
Beeper Number_____
Email_____

Backup Laboratory _____

Contact _____

Emergency Phone Number _____
Person_____
Title/Function _____
Working Hours Phone Number_____
Cell Phone Number _____
Beeper Number_____
Email_____

Water System Mutual Aid Networks

"The CtWARN"

The CtWARN is a Water/Wastewater Agency Response Network that allows water and wastewater systems in CT to receive rapid mutual aid and assistance from other systems in CT.

The concept of "Utilities Helping Utilities" is a pre-arranged mutual aid agreement that enables utilities to share resources during emergencies such as hurricanes, floods, pandemics, or intentional damage. It also enables a utility to be eligible for FEMA Disaster reimbursement. It's voluntary and it's free! For more information on the CtWARN visit **www.ctwarn.org**

List information on neighboring systems that can assist during emergency situations:

Water System Name_____

Contact _____

Resource for_____

_____

Title/Function _____

Working Hours Phone Number_____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number_____

Email_____

Water System Name_____

Contact _____

Resource for_____

_____

Title/Function _____

Working Hours Phone Number_____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number_____

Email_____

Water System Name_____

Contact _____

Resource for_____

_____

Title/Function _____

Working Hours Phone Number_____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number_____

Email_____

Water System Name_____

Contact _____

Resource for_____

_____

Title/Function _____

Working Hours Phone Number_____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number_____

Email_____

Water Supply Product Distributors in Connecticut

You should list the specific resource information such as critical equipment model numbers, well pump, lift station pump, etc. Establish emergency supply agreements with surrounding industries, contractors and related local and regional suppliers.

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number_____

Email_____

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number_____

Email_____

Contact Name & Company _____

_____

Resource for _____

_____

Working Hours Phone Number _____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number _____

Email _____

Contact Name & Company _____

_____

Resource for _____

_____

Working Hours Phone Number _____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number _____

Email _____

Contact Name & Company _____

_____

Resource for _____

_____

Working Hours Phone Number _____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number _____

Email _____

Operations Hardware and Resources

To better enable water systems to secure SCADA systems, vulnerabilities should be identified in the system. List your contacts for your operational hardware needs.

Immediately report ANY improper intrusion into your SCADA or utility IT network to the FBI New Haven Office at 203.777.6311

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number_____

Email_____

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____

Emergency Hours Phone Number _____

Cell Phone Number _____

Beeper Number_____

Email_____

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____
Emergency Hours Phone Number _____
Cell Phone Number _____
Beeper Number_____
Email_____

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____
Emergency Hours Phone Number _____
Cell Phone Number _____
Beeper Number_____
Email_____

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____
Emergency Hours Phone Number _____
Cell Phone Number _____
Beeper Number_____
Email_____

Other Emergency and Frequently Used Phone Numbers

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____
Emergency Hours Phone Number _____
Cell Phone Number _____
Beeper Number_____
Email_____

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____
Emergency Hours Phone Number _____
Cell Phone Number _____
Beeper Number_____
Email_____

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____
Emergency Hours Phone Number _____
Cell Phone Number _____
Beeper Number_____
Email_____

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____
Emergency Hours Phone Number _____
Cell Phone Number _____
Beeper Number_____
Email_____

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____
Emergency Hours Phone Number _____
Cell Phone Number _____
Beeper Number_____
Email_____

Contact Name & Company _____

_____

Resource for_____

_____

Working Hours Phone Number_____
Emergency Hours Phone Number _____
Cell Phone Number _____
Beeper Number_____
Email_____

EPA Safe Drinking Water Hotline -

This hotline is a service of the Office of Ground Water and Drinking Water. It provides the general public, regulators, medical and water professionals, academia and media with information about drinking water and ground water programs authorized under the Safe Drinking Water Act. You can reach the hotline at **1.800.426.4791** or ask a question at the Hotline's website at **www.epa.gov/safewater/hotline**

The National Environmental Methods Institute -

A free, searchable clearinghouse of methods and procedures for both regulatory and non-regulatory monitoring purposes for water, sediment, air and toxicity. Use NEMI first to compare and contrast the performance and relative cost of analytical, text, and sampling methods for environmental monitoring.
http://www.nemi.gov/

US Federal Emergency Management Agency-

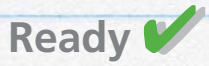
The primary mission of FEMA is to reduce the loss of life and property and protect the Nation from all hazards, including natural disasters, acts of terrorism, and other man-made disasters, by leading and supporting the Nation in a comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation.
http://www.fema.gov

U.S. Department of Homeland Security

The Department of Homeland Security leads the unified national effort to secure America. Their primary charge is to prevent and deter terrorist attacks and protect against and respond to threats and hazards to the nation. DHS provides the unifying core for the vast national network of organizations and institutions involved in efforts to secure our nation.
http://www.dhs.gov/index.shtm

DHS Ready.Gov -

To help citizens begin to learn about potential terrorist threats, the Department of Homeland Security has developed a website specifically concerned with incident and emergency preparedness in the event of a potential terrorist attack. The site discusses actions to be taken depending on the specific type of terrorist attack. **http://www.ready.gov/**



US Food and Drug Administration-Counterterrorism Links

http://www.fda.gov/oc/opacom/hottopics/bioterrorism.html

The Center for Disease Control and Prevention (CDC) -

Emergency Preparedness and Response Homepage. This site is intended to increase the nation's ability to prepare for and respond to public health emergencies. http://www.bt.cdc.gov/

If you believe that you have been exposed to a biological, chemical or radiological agent, or if you believe an intentional threat will occur or is occurring, please contact local emergency responders by calling 911. If you live in an area without 911 service, contact your local emergency, medical, or police service. You should report the situation to your local and state health department.

To contact CDC:

- ✔ **800-CDC-INFO**/888-232-6348 (TTY)
- ✔ **cdcinfo@cdc.gov**
- ✔ CDC Clinician Information Line: **877-554-4625**
- ✔ CDC Emergency Response Hotline:
  (24 hours) **770-488-7100**
  The CDC Emergency Response Hotline provides health departments and health care providers with information from experts in bioterrorism, chemical emergency, and natural disasters.

For consultation on non-emergency programmatic issues, please contact the following:

- ✔ Coordinating Office of Terrorism Preparedness and Emergency Response: **404.639.7405**
- ✔ Bioterrorism and emerging infectious diseases/Bioterrorism Preparedness and Response: **404.639.0385**
- ✔ Chemical, radiological, and natural disasters: National Center for Environmental Health and Agency for Toxic Substances and Disease Registry: **770.488.7000**

Agency for Toxic Substances and Disease Registry (ATSDR) -

ATSDR is a national public health agency which compiles information on contaminants and disease causing agents. They serve the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and disease related to toxic substances.
http://www.atsdr.cdc.gov/about.html

The American Water Works Association (AWWA) -
AWWA is the authoritative resource to improve the quality and supply of drinking water. AWWA is the largest organization of water professionals in the world. AWWA advances public health, safety and welfare by uniting the efforts of the entire water community. Through this collective strength we become better stewards of water for the greatest good of the people and the environment. **http://www.awwa.org**

The Association of State Drinking Water Administrators (ASDWA) -
ASDWA has information on water security planning, training, and links to state programs and other information sources. **http://www.asdwa.org**

National Rural Water Association (NRWA) -
NRWA developed the "Security and Emergency Management System" (SEMS) Software Program, which can be loaded on a personal computer. It is based on NRWA/ASDWA's Security Vulnerability Self-Assessment Guide for Small Drinking Water Systems Serving Populations Between 3,300 and 10,000.
http://www.nrwa.org./

InfraGard -

This is an FBI-sponsored information sharing and analysis effort serving the interests of a wide range of members. InfraGard is a partnership between the FBI and the private sector. InfraGard is an association of businesses, academic institutions, state and local law enforcement agencies and other participants dedicated to sharing information to prevent hostile acts against the United States. Learn more at **www.infragard.net**

Physician Preparedness for Acts of Water Terrorism -

The primary purpose of this Physician Readiness for Acts of Water Terrorism guide is to provide health care practitioners with resources to help guide them through the recognition, management and prevention of water-related disease resulting from intentional acts of water terrorism.
http://www.waterhealthconnection.org/bt/index.asp

ASIS International

The Security Industry Buyer's Guide is a comprehensive database of security products and services in the industry. Comprising more than 3,000 manufacturers and suppliers of security products and services, the SIBG includes available resources of the security industry from the most elemental tools to its most advanced technology.
http://www.sibgonline.com/public/subcatl2.asp

DHS Homeland Security Advisory System -

provides a comprehensive and effective means to disseminate information regarding the risk of terrorist acts to Federal, State, and local authorities and to the American people. This system provides warnings in the form of a set of graduated "Threat Conditions" that increase as the risk of the threat increases. At each threat condition, federal departments and agencies implement protective measures to further reduce vulnerability or increase response capability during a period of heightened alert.

This system is intended to create a common vocabulary and structure for an ongoing national discussion about the nature of the threats that confront the homeland and the appropriate measures that should be taken in response. Learn more at:

http://www.dhs.gov/xinfoshare/programs/Copy_of_press_release_0046.htm

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