America's Water Infrastructure Act of 2018: Risk Assessments and Emergency Response Plans

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America's Water Infrastructure Act (AWIA) – Section 2013

On October 23, 2018 signed into law.

- Water systems serving more than 3,300 people must develop or update risk assessments and emergency response plans (ERPs).
  - Establishes components that the risk assessments and ERPs must address, and
  - Establishes deadlines by which water systems must certify to EPA completion of the risk assessment and ERP.

Certification Deadlines

Population Served	Risk Assessment	Emergency Response Plan*
≥100,000	March 31, 2020	September 30, 2020
50,000-99,999	December 31, 2020	June 30, 2021
3,301-49,999	**June 30, 2021**	**December 30, 2021**

SPECIAL NOTE:

Emergency response plan certifications are **due six months from the date of the risk assessment certification.**

- The dates shown in the previous table are certification dates based on a utility submitting a risk assessment on the final due date.
- No reason to submit too early. That will be your renewal date for ever.

Illinois Requirement very clear in new regulation.

Section 604.135 Repair Work and Emergency Operation

d) Emergency Operations Plan

1) Each community water supply must develop an emergency operations plan for the provision of water under emergency circumstances, including earthquakes, floods, tornados, and other disasters. The emergency operations plan **must include a review of the methods and means by which alternative supplies of drinking water could be provided in the event of destruction, impairment or contamination of community water supply.**

2) The community water supply must The community water supply **review its emergency operations plan at least every three years and revise the plan as necessary.** must maintain the emergency operations plan on site and make it available to the Agency, upon request.

Additional Emergency Planning Measures in new Regulation

Section 604.155 Electrical Controls and Standby Power

a) Electrical controls must be located above grade, in areas not subject to flooding.

b) Each community water supply must provide on site, dedicated **standby power** capable of maintaining continued operation of its water system during power outages to meet the average daily usage determined under Section 604.115.

Section 604.160 Safety

a) All community water supplies whose treatment involves chemical application must have and maintain a **chemical safety plan**.

b) All community water supply personnel involved in the use and maintenance of chemicals must have **periodic safety training**.

Risk and Resilience Assessment Requirements

Six required elements:

- **Risk to the system** from malevolent acts and natural hazards;
- **Resilience** of the pipes and constructed conveyances, physical barriers, source water, water collection and intake, pretreatment, treatment, storage and distribution facilities, electronic, computer, or other automated systems (including the security of such systems) which are utilized by the system;

Six required elements continued:

- The **monitoring practices** of the system;
- The **financial infrastructure** of the system;
- The use, storage, or handling of **various chemicals by the system**; and
- the **operation and maintenance** of the system.

A couple additional notes:

The assessment **may** include an evaluation of capital and operational needs for risk and resilience management for the system.

No later than August 1, 2019, EPA will release a baseline threat document to provide community water systems with additional information concerning risk assessment requirements.

Emergency Response Plan Requirements

Four elements:

- **Strategies and resources to improve the resilience of the system**, including the physical security and cybersecurity of the system;
- **Plans and procedures that can be implemented, and identification of equipment that can be utilized,** in the event of a malevolent act or natural hazard that threatens the ability of the community water system to deliver safe drinking water;

Four elements continued:

- **Actions, procedures and equipment which can obviate or significantly lessen the impact** of a malevolent act or natural hazard on the public health and the safety and supply of drinking water provided to communities and individuals, including the development of alternative source water options, relocation of water intakes and construction of flood protection barriers; and
- **Strategies that can be used to aid in the detection** of malevolent acts or natural hazards that threaten the security or resilience of the system.

Coordination with local emergency

- Community water systems shall to the extent possible coordinate with local emergency planning committees established under the Emergency Planning and Community Right-To-Know Act of 1986 when preparing or revising an assessment or emergency response plan under the AWIA.
- Further, systems must maintain a copy of the assessment and emergency response plan for five years after certifying the plan to the EPA.

Certification Process

The U.S. EPA is currently developing a process for community water systems to certify completion of risk assessments and emergency response plans.

Three options will be provided for risk assessment and emergency response plan certification submittals:

1) regular mail;
2) email; or
3) user-friendly, secure online portal.

Contact information for each option will be available no later than August 1, 2019.

This is an U.S. EPA Certification

- Section 2013 of AWIA does not require utilities to submit the certification to State or Local Governments.
  - Last word received from Illinois EPA was that they were not going to be involved.
    - Except during routine audit during inspection.

Five-year Review, Revision and Certification Requirements

- Each community water system serving more than 3,300 persons **must review its risk and resilience assessment at least once every five years** to determine if it should be revised. Upon completion of such a review, the system must submit to the **EPA a certification that it has reviewed its assessment and revised it**, if applicable.
- Further, each community water system serving more than 3,300 persons **must review and, if necessary, revise its emergency response plan at least once every five years** after the system completes the required review of its risk and resilience assessment. The emergency response plan must incorporate any revisions to the risk and resilience assessment. Upon completion of such a review, but **not later than six months after certifying the review of its risk and resilience assessment, the system must submit to the EPA a certification** that it has reviewed its emergency response plan and revised it, if applicable.

Tools and Methods

https://www.epa.gov/waterresilience

U.S. EPA **recommends** using AWWA J100-10 Risk and Resilience Management of Water and Wastewater Systems along with other tools from U.S. EA and other organizations.

AWIA **does not require** the use of any standards, methods or tools for the risk and resilience assessment or emergency response plan.

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Drinking Water and Wastewater Resilience

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SHARE

Register for Risk Assessment and Emergency Response Plan Webinar

EXIT

Register for In-person Risk Assessment and Emergency Response Plan Training

Not sure where to start?

Download the 2018 Route to Resilience.

Not sure where to start?
Download the 2018 Route to Resilience.

Assess

- Conduct a risk assessment
- Learn financial and health impacts of a water disruption
- Creating Resilient Water Utilities
- Adopt cybersecurity best practices

Plan

- Develop emergency response plans
- Build hazard resilience
- Build relationships in your community
- Share resources during an emergency

Learn About Water Resilience

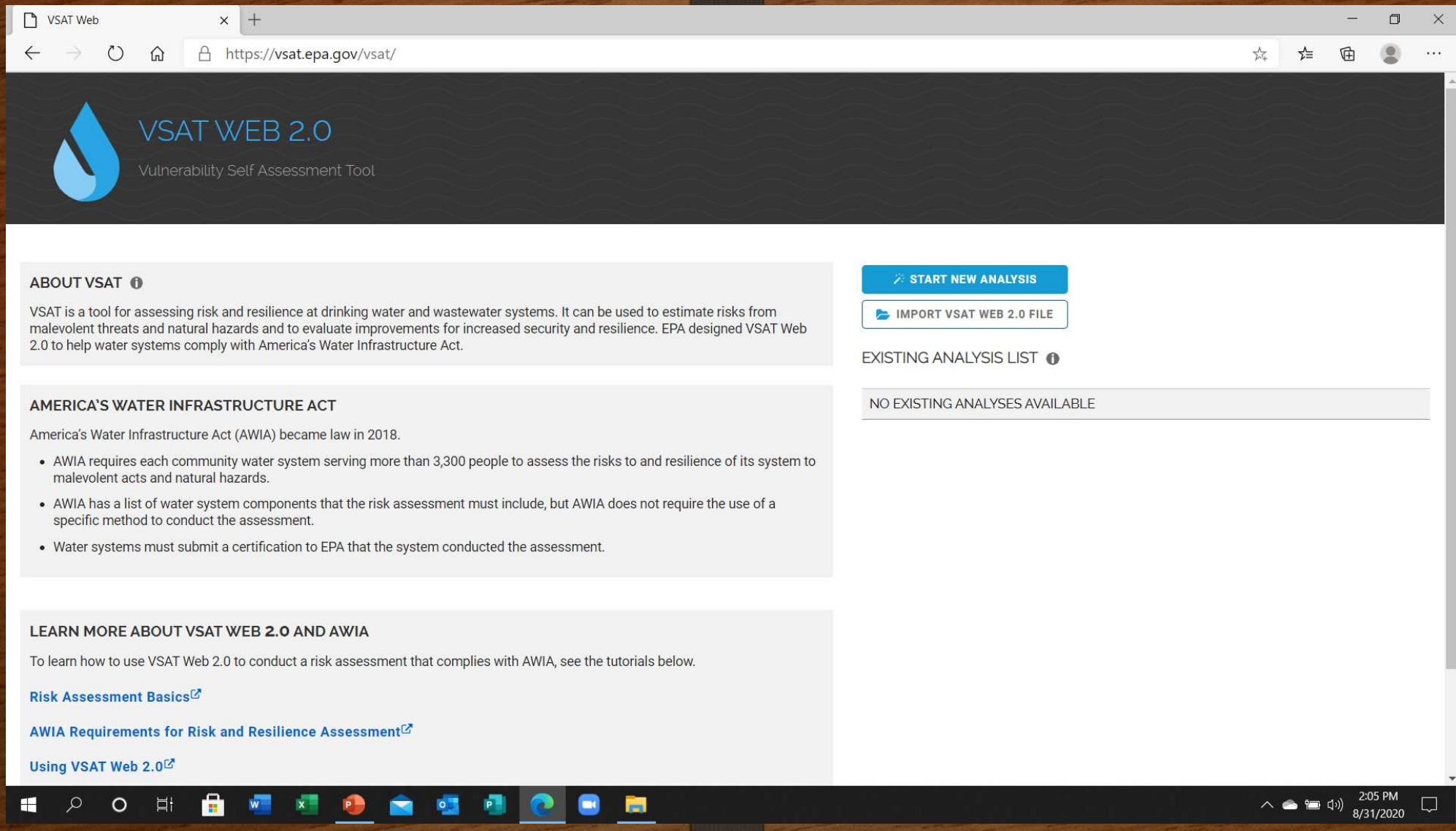
- Water resilience basics
- Protect your local water supply
- Technical support products and services

Join Our Email List

Related Sites

Conduct a Drinking Water or Wastewater Utility Risk Assessment

- Vulnerability Self-Assessment Tool - Web Enabled (VSAT Web) 2.0
- VSAT Web is a ***user-friendly tool*** that can help drinking water and wastewater utilities of all sizes to enhance their security and resiliency.
- With VSAT Web, a utility can identify the highest risks to mission-critical operations and find the most cost-effective measures to reduce those risks
- Highlights of VSAT Web:
  - Designed for mobile devices like tablets and iPads, as well as personal computers, and runs on most Internet browsers.
  - No VSAT Web User data is stored by or visible to EPA!
  - Complies with risk assessment standards, and offers liability protection under the Department of Homeland Security's Support Anti-Terrorism by Fostering Effective Technologies (SAFETY) Act program.


VSAT Web
https://vsat.epa.gov/vsat/
VSAT WEB 2.0
Vulnerability Self Assessment Tool
ABOUT VSAT
VSAT is a tool for assessing risk and resilience at drinking water and wastewater systems. It can be used to estimate risks from malevolent threats and natural hazards and to evaluate improvements for increased security and resilience. EPA designed VSAT Web 2.0 to help water systems comply with America's Water Infrastructure Act.
AMERICA'S WATER INFRASTRUCTURE ACT
America's Water Infrastructure Act (AWIA) became law in 2018.
AWIA requires each community water system serving more than 3,300 people to assess the risks to and resilience of its system to malevolent acts and natural hazards.
AWIA has a list of water system components that the risk assessment must include, but AWIA does not require the use of a specific method to conduct the assessment.
Water systems must submit a certification to EPA that the system conducted the assessment.
LEARN MORE ABOUT VSAT WEB 2.0 AND AWIA
To learn how to use VSAT Web 2.0 to conduct a risk assessment that complies with AWIA, see the tutorials below.
Risk Assessment Basics
AWIA Requirements for Risk and Resilience Assessment
Using VSAT Web 2.0
START NEW ANALYSIS
IMPORT VSAT WEB 2.0 FILE
EXISTING ANALYSIS LIST
NO EXISTING ANALYSES AVAILABLE
2:05 PM
8/31/2020

Develop (update) a Drinking Water or Wastewater Utility ERP

EPA has resources for water and wastewater utilities to help in developing or updating Emergency Response Plans.

Document Title	Audience
Emergency Response Plan Guidance for Small and Medium Community Water Systems	Systems serving populations between 3,301 and 99,999
Emergency Response Plan Guidance for Large Community Water Systems	Systems serving populations of 100,000 and greater
All-Hazards Consequence Management Planning for the Water Sector	Systems of all sizes
Top Ten List for Small Ground water Systems	All small ground water systems

https://www.epa.gov/waterutilityresponse/emergency-response-plan-guidance-small-and-medium-community-water-systems

An official website of the United States government.

We've made some changes to EPA.gov. If the information you are looking for is not here, you may be able to find it on the EPA Web Archive or the January 19, 2017 Web Snapshot. Close ×

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Emergency Response Plan Guidance for Small and Medium Community Water Systems

For use by community water systems serving populations between 3,301 and 99,999.

You may need a PDF reader to view some of the files on this page. See EPA's About PDF page to learn more.

- Emergency Response Plan Guidance for Small and Medium Community Water Systems (PDF) (45 pp, 424 K, 816-R-04-002)

Contact Us to ask a question, provide feedback, or report a problem.

45 Page Document- 5 Chapters – Chapter 2 – 8 Elements of an ERP

II. Emergency Response Plan—Eight Core Elements
A. System Specific Information (Element 1)

B. CWS Roles and Responsibilities (Element 2)

C. Communication Procedures: Who, What, and When (Element 3)

1. Internal Notification List
2. 2. External Non-CWS Notification List
3. Public/Media Notification: When and How to Communicate

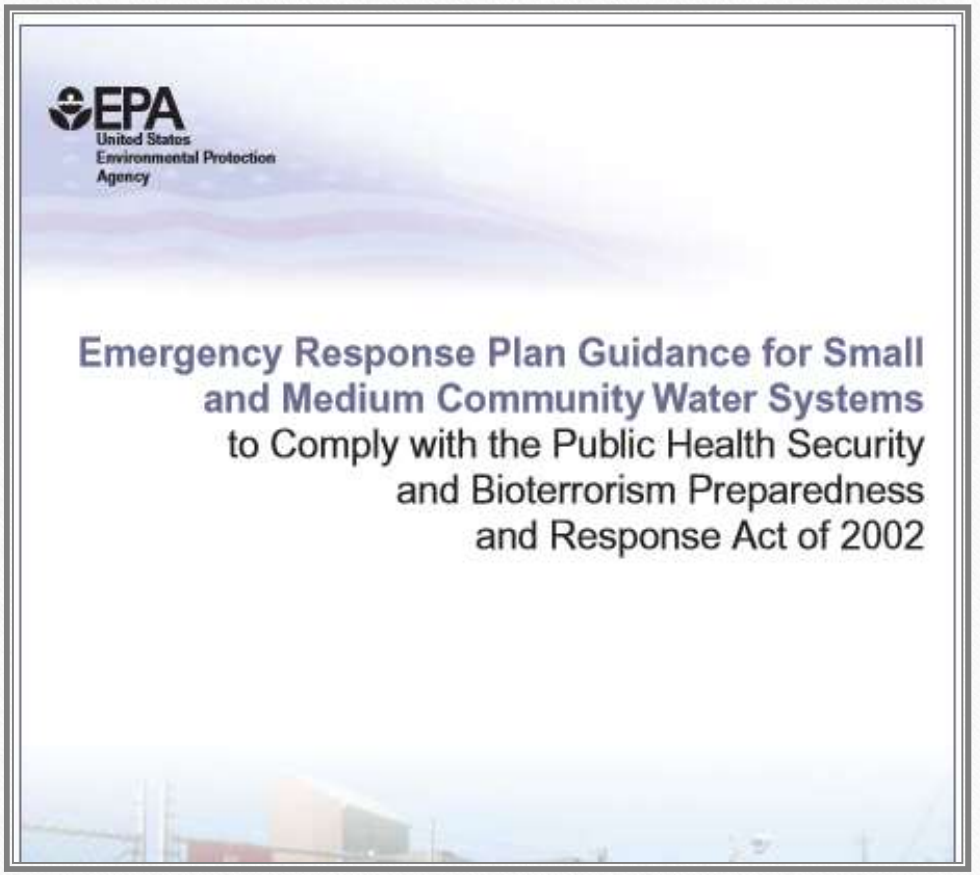
D. Personnel Safety (Element 4)

E. Identification of Alternate Water Sources (Element 5)

F. Replacement Equipment and Chemical Supplies (Element 6)

G. Property Protection (Element 7)

H. Water Sampling and Monitoring (Element 8)



Can a contractor be used?

- Yes, but the Utility is ultimately responsible for meeting the requirements previously outlined.
- Aka., your utility is responsible for ensuring that the risk and resilience assessment and emergency response plan address all the criteria in AWIA Section 2013(a) and (b), respectively.

What has IRWA been doing to help us comply?

- Conducted a "pilot" using U.S. EPA software tools
- Conducted a "pilot" using proprietary software - SEMS
- Developed templates for RRA and ERP

Where do you go for help on the RRA and ERP?

- Go to IRWA website @:

https://www.ilrwa.org/ and follow links or

http://www.ilrwa.org/Downloads/VAERPhtml.html

Word and Excel versions.

- Pros and cons to both versions….
- Disclaimer – We did our best to make documents meet State and Federal Requirements. However, no legal review so….

What do you need to get craking on your RRA and ERP?

- Old ERP (and vulnerability assessment if you had one)
- Most recent Illinois EPA inspection
- Insurance values of your assets
- A computer with Microsoft Word and/or Excel

REMINDERS

- CERTIFICATION DEADLINE
  - **June 30, 2021 FOR RRA**
  - **December 30, 2021 ERP**
- DO NOT CERTIFY TOO EARLY, on the other hand don't wait until midnight on June 30.
  - My bet is that the closer we get to that date the more U.S. EPA is going to be overwhelmed.
- ONLY CERTIFYING, DO NOT SEND PROTECTED INFORMATION TO ANYONE!
  - IEPA will check to make sure you have an ERP during inspections
    - They do not want copies of the Certification, this is a U.S. EPA function