

## Risk & Resiliency Assessment and Emergency Response Plan

**Community Water Systems (CWS)**, like other utilities comprising the nation's critical infrastructure sector, face an array of threats from both natural (e.g., floods, hurricanes) and man-made (e.g. accidental and malevolent acts) occurrences. Several events and conditions - including water contamination, water infrastructure damage, elevated lead levels in tap water, and increasing sustainability challenges from the aging and deteriorated state of assets - have increased national attention to these major threats.

The **America's Water Infrastructure Act of 2018 (AWIA 2018)** enacted October 23, 2018, contains provisions that seek to address threats to safe, adequate, and reliable drinking water, and, other water infrastructure concerns. The law requires **Community Water Systems (CWS)** serving populations of 3,300 or greater, to conduct **Risk and Resilience Assessments (RRA)** and develop or update their **Emergency Response Plans (ERP)**. AWIA 2018 contains specific requirements and deadlines for completion of RRAs and ERPs. (Note that EPA can initiate enforcement action and assess financial penalties for non-compliance.)

### Required RRA Considerations

- Risks to system components from malevolent acts and natural hazards
- Monitoring practices
- Financial infrastructure
- Use, storage, or handling of chemicals
- Operation and maintenance of the system
- Evaluation of capital and operational needs

### System Components Considered

- Physical barriers
- Source water
- Pipes and constructed conveyances
- Water collection and intake
- Pretreatment
- Treatment
- Storage and distribution facilities
- Technology systems including HW & SW

### Required ERP Considerations

- Strategies and resources to improve the resilience of the system
- Plans and procedures that can be implemented, and identification of equipment
- Actions, procedures and equipment which can obviate or significantly lessen the impact
- Strategies that can be used to aid in the detection of malevolent acts or natural hazards

The law establishes deadlines to certify completion of RRAs and ERPs to the Environmental Protection Agency (EPA):

### CWS Size (population served)

>100,000  
50,000 to 100,000  
3,300 to <49,000

### Certify RRA Prior to:

Mar 31, 2020  
Dec 31, 2020  
Jun 30, 2021

### Certify ERP No Later Than:

Sep 30, 2020  
Jun 30, 2021  
Dec 30, 2021

**Ron Booth & Associates** has extensive experience assisting water utilities of all sizes with Risk & Resiliency Assessments (formerly referred to as Vulnerability Assessments) and Emergency Response Plans. Our capabilities include evaluation of threats from malevolent acts and natural hazards to both physical and cyber assets required for compliance with AWIA.

We apply a proven methodology to ensure an "all-hazards" approach to conducting a comprehensive risk and resilience assessment, performing rigorous analyses, and developing actionable and prioritized plans to manage systemwide risks. Our approach includes collaboration with stakeholders, subject matter experts, and regulatory bodies, to synthesize preparedness in the face of unwanted events. The results of the RRA includes findings, results, insights, implications, and improvement opportunities and they are integrated into the utility's ERP. Key benefits include:

- Governing and oversight agencies gain insights into unique challenges and recommended corrective actions that can be shared to drive continuous improvements;
- The utility gains an understanding into where the priorities are to invest limited resources, and the order of magnitude improvements that can be achieved in operational costs and efficiencies; and
- The utility has an actionable plan (i.e. ERP) that: Identifies, deters, detects, and prepares for these threats; reduces vulnerabilities of critical assets; and, mitigates the potential consequences of incidents that may occur.

**To Learn More:** If you would like more information on completing your utility's Risk & Resiliency Assessment and Emergency Response Plan and how we can help, please contact:

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