REGULATORY ASSISTANCE
Community Water Systems

Trinity Consultants

Founded in 1974, Trinity Consultants helps organizations overcome complex, mission-critical challenges in EHS, engineering, and science through expertise in consulting, technology, training, and staffing. We support clients in geographies worldwide and across a broad range of sectors including industrial, energy, manufacturing, mining, life sciences, and commercial/institutional.

Community Water Systems are designated as critical infrastructure and as first responders for the communities they serve. America's Water Infrastructure Act of 2018 (AWIA) requires each community water system that serves more than 3,300 persons to:

▶ Conduct a Risk and Resilience Assessment (RRA) to include malevolent acts and natural hazards
▶ Prepare or revise Emergency Response Plan (ERP) to reflect the findings of the RRA

▶ Submit RRA and ERP completion certifications to Environmental Protection Agency (EPA)
▶ Review and update both the RRA and the ERP at least every five years
▶ Maintain records of RRA and ERP and any updates for five years after certification

Risk and Resilience Assessment (RRA) and Emergency Response Plan (ERP)

Drinking water utilities provide essential lifeline services to their communities. Therefore, it is imperative that utility investments are prioritized to ensure day-to-day continuity of service during times of crisis. Identifying risk and potential mitigation strategies before an event occurs is a vital step that results in huge dividends during times of crisis. Each community water system must certify the completion of its RRA and ERP for every individual Public Water System Identification (PWSID) number.

The primary objectives of an RRA are to become more aware of the risks to service continuity and identify options that can mitigate undesirable consequences. Thus, an RRA should enable the utility to:

▶ Understand threats, consequences, and vulnerabilities that may negatively impact operations
▶ Inform efficient resource allocations to maximize risk mitigation and improve resiliency
▶ Inform and update the ERP to enhance its effectiveness during an incident

Community water systems are required under AWIA to submit a certification to the EPA that the RRA has been completed by the following dates:

▶ March 31, 2020 for utilities serving 100,000 people or more
▶ December 31, 2020 for utilities serving 50,000 - 99,999 people
▶ June 30, 2021 for utilities serving 3,301 - 49,999 people

Community water systems must also submit a certification to EPA that the ERP has been developed or updated based on the results of the RRA within six months of the certification of the RRA. The ERP must include:

▶ Strategies and resources to improve resilience, including physical security and cybersecurity
▶ Plans and procedures for responding to a natural hazard or malevolent act that threatens the utility's ability to produce and deliver safe drinking water
▶ Actions and equipment to reduce the impact of threats from natural hazards and malevolent acts

Trinity uses the Risk Analysis and Management of Critical Asset Protection (RAMCAP) methodology, which is a process for analyzing and managing the risks from associated malevolent attacks and naturally occurring hazards against critical facility infrastructure. The methodology can be used to establish risk and resilience along with benefits of risk reduction and resilience enhancement. The quantification of risks, resilience and benefits can provide an actionable foundation upon which the facility can base resource allocation to increase resilience and reduce risk for different assets under consideration. This process can be summarized as follows:

- ▶ Asset Characterization
- ▶ Threat Characterization
- ▶ Consequence and Vulnerability Analysis
- ▶ Baseline Risk and Resilience Analysis
- ▶ Mitigation Risk and Resilience Analysis
- ▶ Overall Utility Resilience Index
- ▶ Cybersecurity Assessment

Training

The most effective development and implementation of RRA and ERP programs happen when utility personnel are involved and understand all aspects of AWIA compliance processes. Trinity provides extensive training on all aspects as incorporated in the AWWA Risk and Resilience Certificate Program and offers both on-site and online training as required.

Why Choose Trinity

Trinity staff are certified under the AWWA Risk and Resilience Certificate Program and have extensive experience developing in depth RRAs and ERPs. In order to maximize the immediate and ongoing benefits of the AWIA requirements, Trinity has developed a proprietary software tool that incorporates the recognized AWWA guidance along with tailoring it to the specific utility's requirement. The result is a comprehensive RRA, completed in a timely and cost-effective manner with the inherent ability to efficiently update the assessment as required. Furthermore, our analysis will identify potential risk mitigation options which would help stakeholders evaluate and implement necessary mitigation efforts while making financially informed decisions.

For more information about how we can help your organization, please contact Greg Haunschild, PE, at 832.483.0509 or M. Sirajuddin (Siraj), EIT, at 213.284.5510.

ISO 9001:2015 certified at our corporate office in Dallas, Texas