

RISK AND RESILIENCE ASSESSMENT AND EMERGENCY RESPONSE PLAN



A PRIMER FOR VERY SMALL DRINKING WATER SYSTEMS (SERVING UNDER 3,301 PEOPLE) AND WASTEWATER SYSTEMS

Incidents can strike at any time. They can damage water treatment and distribution systems, cause power outages, and prevent you from providing safe water to your community. If you **assess** your risks and **plan** how to respond before the next disaster, you may be able to recover faster and easier. Larger drinking water systems are already required to assess and plan, but it's good practice for you too.

ASSESS: Find out your water system's biggest risks by conducting a Risk and Resilience Assessment (RRA)



The goal of an RRA is to recognize and rank your system's top risks. Your RRA will address questions such as:

- What natural hazards (e.g., floods, droughts, fires) occur in your area?
- What man-made threats (e.g., cyberattack, contamination) might occur?
- Are there any weaknesses in your utility that leave you vulnerable to these threats?
- How is your utility prepared to handle these threats? In addition to identifying risks, your RRA should highlight ways in which you are already resilient.

PLAN: Respond to your water system's biggest threats in an Emergency Response Plan (ERP)

Create a plan to follow when emergencies strike. Your ERP will address questions such as:

- How can you detect threats early (e.g., alarms, computer virus software, notice of an incoming hurricane)?
- What roles will each employee play during the response?
- Who will help you during an emergency (e.g., police, neighboring water utility)?
- What steps should you take before, during, and after an emergency?

WHY SHOULD I CREATE AN RRA AND ERP?

You are likely busy with the day-to-day tasks of running your water system and may be hesitant to take time to create an RRA and ERP but be assured that the process will be worth your while. The U.S. Environmental Protection Agency (EPA) along with your state highly encourage ALL water systems to develop RRAs and ERPs to prepare for emergencies! In addition to helping you prepare, here are some other reasons to consider creating an RRA and ERP:

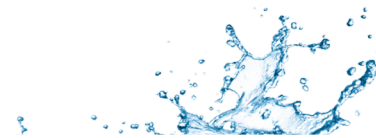
- **The process is easier thanks to EPA's free RRA and ERP templates.** EPA's [AWIA Small System Risk and Resilience Assessment Checklist](#) walks you step-by-step through the process of conducting your RRA. Similarly, EPA's [ERP Template and Guidance](#) helps you write your ERP. Click [here](#) for information on training on how to use these resources.
- **If your population increases to 3,301 or higher, you will be required to create an RRA and ERP under America's Water Infrastructure Act (AWIA).** If you complete this step now, you will already have the work done!
- **Free help is available!** National Rural Water Association (NRWA) and Rural Community Assistance Partnership (RCAP) technical assistance providers are available to help you get started on your RRA and ERP.

Get Continuing Education Units (CEUs) for your operator's license. If you are a community drinking water system that serves under 3,301 people, a non-community water system, or a wastewater system and you work with your local NRWA or RCAP technical assistance provider, you can receive an RRA/ERP certificate of completion signed by EPA and NRWA or RCAP. Send the certificate to your state for CEU credit if your state allows it. Click [here](#) for a list of states that have pre-approved CEU credits for an RRA/ERP certificate of completion.



WHAT ELSE CAN YOU DO TO PREPARE FOR DISASTERS?

Here are **10 quick and easy steps** to take now:



- 1. Join your state's [Water and Wastewater Agency Response Network \(WARN\)](#).** WARN members can get personnel, equipment, materials, and other forms of help from local utilities during an emergency. Click [here](#) to find out how to join your state's WARN.
- 2. Create a plan in case critical staff are unable to work.** During the COVID-19 pandemic, water utilities saw firsthand that staff may not be able to report to work due to illness or caring for an ill family member. Plan to keep your utility going when key personnel cannot report to work. For more ideas, see EPA's [Pandemic Incident Action Checklist](#).
- 3. Create a checklist of daily work activities that must be completed and post them somewhere they can be easily seen.** This will come in handy if someone other than your regular staff needs to run the water system during an emergency.
- 4. Post emergency numbers somewhere they can easily be seen and give them to all staff.** Have 24/7 emergency numbers for city and utility officials, local emergency responders, and your regulatory agency. Update and verify this information regularly.
- 5. Use complex, unique passwords and improve your cybersecurity practices.** Have each of your employees use individual accounts with strong passwords and multi-factor authentication, if possible. For more cybersecurity best practices, please see EPA's [Cybersecurity Incident Action Checklist](#) and the U.S. Cybersecurity and Infrastructure Security Agency's [Guidance on Cybersecurity](#). Sign up [here](#) to receive free Cybersecurity Assessment and Technical Assistance from EPA.
- 6. Identify backup power solutions.** Will you borrow a generator from a WARN member or rent a generator if there is a power outage? Start with the [Power Outage Incident Action Checklist](#) to help you prepare for power outages. EPA's [Power Resilience Guide](#) can help you plan what would work best for you.
- 7. Prepare for water contamination.** Complete EPA's [Analytical Preparedness Self-Assessment](#) for tips on how to respond to contamination and [access laboratory support](#) when you need it.
- 8. Train water utility staff so they know what to do when disaster strikes.** EPA's [tabletop exercise \(TTX\) tool](#) provides resources that your water utility can use to plan, conduct, and evaluate tabletop exercises for a variety of disaster scenarios.
- 9. Find funding to help prepare or recover.** Visit EPA's [Federal Funding for Water and Wastewater Utilities in National Disasters \(Fed FUNDS\) website](#) to easily find funding from federal agencies. For example, the [United States Department of Agriculture \(USDA\) provides grants](#) to utilities serving less than 10,000 people to prepare or recover from disasters.
- 10. Plan for the future.** Rainfall, temperature, and weather patterns are changing. Think about how these changes could impact your utility. For tips on how to manage these changes, check out EPA's [Resilient Strategies Guide](#).

Have Questions? Contact EPA at dwresilience@epa.gov.

Need help creating your RRA and ERP? Contact [RCAP](#) or [NRWA](#).

