

# Everything You Need to Know about RRAs and ERPs

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# Everything You Need to Know about RRAs and ERPs

- What are these?
- Do I have them already?
- Why do I want/need them?
- What is required and by when?
- What do I need to do?

# What are RRAs and ERPs?

## **RRAs - Risk and Resilience Assessments**

- Assess the risks to, and resilience of, the water system
- Required by EPA for community water systems serving more than 3,300 persons

# What are RRAs and ERPs?

## ERPs - Emergency Response Plans

- Prepare for and respond to an incident, natural or man-made, that threatens life, property, or the environment

Required by EPA for  
community water  
systems serving more  
than 3,300 persons

Required by  
DNR/Code for all  
municipal water  
systems

# What are RRAs and ERPs?

- For Water Systems serving more than 3,300 people:
  - RRA and ERP are required by Section 2013 of America's Water Infrastructure Act of 2018
  - **Administered by EPA** (not the DNR)
  - Must be updated and certified every five years

# Certification Deadlines - RRAs

Population Served*	Previous RRA Deadline	Next 5-Year Submission Cycle RRA Deadline
≥100,000	March 31, 2020	March 31, 2025
50,000-99,999	December 31, 2020	December 31, 2025
3,301-49,999	June 30, 2021	June 30, 2026

\*Population served includes the population your system serves directly; AND the population of all consecutive systems that your water system supplies (if applicable).

# Certification Deadlines - ERPs

Population Served*	Previous ERP Deadline**	Next 5-Year Submission Cycle ERP Deadline**
≥100,000	September 30, 2020	September 30, 2025
50,000-99,999	June 30, 2021	June 30, 2026
3,301-49,999	December 31, 2021	December 31, 2026

\*Population served includes the population your system serves directly; AND the population of all consecutive systems that your water system supplies (if applicable).

\*\*ERP certifications are due six months from the date of the RRA certification. The dates shown above are certification dates based on a utility submitting a RRA on the final due date.

# EPA Certification Requirements

- Review RRA and ERP at least once every five years to determine if they should be revised
- Submit to the EPA a certification that water system has reviewed its RRA and ERP and revised them, if applicable



# How to Certify RRAs and ERPs

- Certification to US EPA required – certification templates provided, full report not required

<https://www.epa.gov/waterresilience/how-certify-your-risk-and-resilience-assessment-or-emergency-response-plan>

- Electronic Submission strongly recommended

- need Public Water System ID Number

**DODGEVILLE WATERWORKS**

DNR PWSID - 12500796

EPA PWSID - WI1250079

- Email or regular mail also allowed

## Advanced Shared Services

### SERVICES REQUESTED

Partner / Program / Role

Program ID

## Registration Request

Would you like to log in to an existing account or register with an new account?

[Log in to my account](#)

[Register a new account](#)

## Advanced Shared Services

[Contact Us](#)



### Log In

User ID

Password

[Log In](#)

[Register with SCS](#)

[Forgot your Password or User ID?](#)

[Warning Notice and Privacy Policy](#)

## Welcome

Welcome to the Environmental Protection Agency (EPA) Shared CROMERR Services (SCS) - the Agency's electronic reporting site. The Shared CROMERR Services concept has been defined as a central point which supplements EPA reporting systems by performing new and existing functions for receiving legally acceptable data in various formats, including consolidated and integrated data.

# Why do we need these plans?

- If over 3,300 people, these are required and EPA may exercise enforcement actions and penalties if not completed
- All municipal water systems need an Emergency Response Plan
- Opportunity to assess risks, strengthen resilience, and confirm that emergency response protocols are up to date and practical – **treat ERP as a living document**

# **Risk and Resilience Assessments**

# RRA Requirements - Assessment of:

- Risk to the system from malevolent acts and natural hazards
  - Natural Hazards – flood, tornado, ice storm, fire (hurricanes, earthquakes)
  - Malevolent Acts – cyberattack, theft, sabotage, physical assault on utility, intentional contamination of source water/finished water

# RRA Requirements - Assessment of:

- Resilience of the system components
  - Source water and treatment
  - Storage and distribution facilities
  - Computers and other automated systems, including the security of these systems (SCADA)

# RRA Requirements - Assessment of:

- Monitoring practices of the system
  - Practices used to monitor water quality
  - Laboratory resources, sampling capabilities, and data management equipment
  - Security cameras
  - Access control systems

# RRA Requirements - Assessment of:

- Financial infrastructure of the system
  - Equipment and systems used to operate and manage finances
  - Billing, payment, and accounting systems



# RRA Requirements - Assessment of:

- Use, storage, or handling of various chemicals by the system
  - Handling practices used for chemical disinfection and treatment
  - Risk of uncontrolled release of a potentially dangerous chemical (chlorine)

# RRA Requirements - Assessment of:

- Operation and Maintenance of the system, risk to operations associated with dependency threats:
  - Loss of utilities (power outages)
  - Loss of suppliers (interruption in chemical deliveries)
  - Loss of key employees (disease outbreak or employee displacement)

# RRA Resources

- [Small System Risk and Resilience Assessment Checklist](#)

EPA free tool, recommended for community water systems serving under 50,000 people

**Community Water System  
Risk and Resilience Assessment Checklist**

Enter CWS Name Below:

**Risk and Resilience Assessment**

**Please fill in the information below.**

Facility Name (if applicable):

PWSID:

Description of System:

Analyst Name(s):

Date of Analysis:

# RRA Resources

- Small System Risk and Resilience Assessment Checklist
- Complete 2 tables for each system component/asset category:
  - Natural Hazards
  - Malevolent Acts
- Not required to use the Checklist, but it is a good starting point

**Table 2b: Source Water (Natural Hazards)**

<b>Asset Category: <i>Source Water</i></b> <b>Examples of Assets in this Category:</b> Encompasses all sources that supply water to a water system. Possible examples include rivers, streams, lakes, source water reservoirs, groundwater, and purchased water.	
<b>Natural Hazards<sup>12</sup></b> Select the natural hazards in this column that pose a <u>significant risk</u> to this asset category at the CWS.	<b>Brief Description of Impacts</b> If you select a natural hazard in the left column as a significant risk to the <i>Source Water</i> asset category, briefly describe in the right column how the natural hazard could impact this asset category at the CWS, especially as the impact relates to existing vulnerabilities at the CWS. Include effects on major assets, water service, and public health as applicable.
<input type="checkbox"/> Hurricane	
<input type="checkbox"/> Flood	
<input type="checkbox"/> Earthquake	
<input type="checkbox"/> Tornado	
<input type="checkbox"/> Ice storm	

Table 2a: Source Water (Malevolent Acts)

Asset Category: <i>Source Water</i> Examples of Assets in this Category: Encompasses all sources that supply water to a water system. Possible examples include rivers, streams, lakes, source water reservoirs, groundwater, and purchased water.	
<b>Malevolent Acts<sup>11</sup></b> Select the malevolent acts in this column that pose a <u>significant risk</u> to this asset category at the CWS.	<b>Brief Description of Impacts</b> If you select a malevolent act in the left column as a significant risk to the <i>Source Water</i> asset category, briefly describe in the right column how the malevolent act could impact this asset category at the CWS, especially as the impact relates to existing vulnerabilities at the CWS. Include effects on major assets, water service, and public health as applicable.
<input type="checkbox"/> Theft or Diversion – Physical	
<input type="checkbox"/> Intentional Contamination of Source Water	
<input type="checkbox"/> Other(s), enter below: <div></div>	

# RRA Checklist

- Focus on the ones that pose a **significant risk** for your municipality
- Risk is a function of three key factors:
  - **Threat likelihood** - probability
  - **Vulnerability** - weakness
  - **Consequence** - magnitude of loss, either economic or health



RCAP/AWWA SMALL SYSTEMS  
RISK AND RESILIENCE ASSESSMENT WORKSHEET



## RCAP/AWWA Small Systems Risk and Resilience Assessment Worksheet

The information in the worksheet addresses the basic elements of a risk and resilience assessment for small systems to comply with America's Water Infrastructure Act of 2018. The information can be used to support the inputs necessary for the Vulnerability Self-Assessment Tool (VSAT) which follows the ANSI/AWWA J100 Standard for Risk and Resilience Management.

### Section 1: Utility Information

A. UTILITY NAME and PWSID: \_\_\_\_\_

B. DATE OF ASSESSMENT: \_\_\_\_\_

C. CONTACT PERSON: \_\_\_\_\_

D. UTILITY PHYSICAL ADDRESS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

E. UTILITY PHONE: \_\_\_\_\_

F. CONTACT EMAIL: \_\_\_\_\_





# **Security Vulnerability Self-Assessment Guide for Drinking Water Systems**



Also available at:

[www.vulnerabilityassessment.org](http://www.vulnerabilityassessment.org)

# RRA - Cybersecurity

- **AWWA Water Sector Cybersecurity Risk Management Tool**

<https://cybersecurity.awwa.org//>

- Answer 22 yes/no questions about your water system's current cyber practices.
- Tool generates a list of recommended cybersecurity controls the utility should implement to protect against cyberattack.

# Improving Resiliency

- Changes or improvements to operation and maintenance practices
- Capital improvement projects needed
- Repairs and maintenance needed
- Changes or improvements to procedures

# Emergency Response Plans

# ERP – EPA Requirements:

- Strategies and resources to improve the resilience of the system, including the physical security and cybersecurity of the system
- Plans and procedures for responding to malevolent act or natural hazard that threaten safe drinking water
- Actions, procedures, and equipment to lessen the impact of a malevolent act or natural hazard, (e.g., alternative water sources)
- Strategies to detect malevolent acts or natural hazards that threaten the security or resilience of the system

# ERP – DNR Requirements:

- A plan to prepare for, respond to, mitigate and recover from all types of emergency situations:
  - Hazards such as floods, tornadoes and other natural disasters
  - Terrorism or sabotage
  - Loss of system-wide pressure
  - Overfeed of chemicals

# ERP – DNR Requirements

- Required by NR 810 Code

**NR 810.23 Water system security and emergency operations.** (1) **WATER SYSTEM SECURITY.** Water system buildings and infrastructure access points above ground, such as reservoir hatches, lines used to pump to waste, doors and valve chambers, shall have adequate locks and be secured when not occupied or in use. Security measures that may be taken include: the installation of security fences, hardened or protected locks, exterior warning lights, exterior motion detectors, surveillance cameras; door, window, and hatch intrusion alarms, room motion sensors, steel doors, minimizing the size of windows, eliminating windows or using hardened window materials or iron, steel bars, or mesh over windows. Any security alarms installed shall be connected to telemetry control, SCADA systems, and monitored alarm systems where they are used.

(2) **EMERGENCY OPERATIONS.** Water suppliers for each community water system shall develop a plan to prepare for, respond to, mitigate and recover from all types of emergency situations, including terrorism, sabotage, natural disasters such as floods and tornadoes, loss of system-wide pressure, and overfeed of chemicals.

(a) Municipal water systems shall have an emergency operation plan including, at a minimum:

1. A list of local and state emergency contacts.
2. A system for establishing emergency communications.
3. Any mutual aid agreements the water utility has with other communities for sharing personnel, equipment and other resources during an emergency.

4. Standard procedures for emergency water production.

5. A means for sharing information with customers.

(b) Other-than-municipal water systems shall have an emergency operation plan including at a minimum:

1. A list of plumbers, electricians or other contractors that would be available to respond in emergency situations.

2. Procedures for obtaining a back-up water source.

**History:** CR 09-073: cr. Register November 2010 No. 659, eff. 12-1-10.

# ERP – DNR Requirements

- Required by NR 810 Code
- DNR checks ERPs as part of Sanitary Surveys every 3 years
- Priority points for Safe Drinking Water Loan Program funding



# ERP – DNR Requirements

- Municipal systems shall have an emergency response plan including at a minimum:
  - A list of state and local emergency contacts
  - A system for establishing emergency communications
  - Any mutual aid agreements the utility has with other communities for sharing personnel, equipment and other resources during an emergency
  - Standard procedures for emergency water production
  - A means for sharing information with customers

# ERP Practical Guidelines

## What to Include:

- Threat or Emergency Detection
  - Alarms, staff rounds, customer calls, natural disaster warnings
- Staff/Employee Contacts
  - After hours, On-call
- Staff Roles and Responsibilities
  - Designate a Response Coordinator
  - Staff training

# ERP Practical Guidelines

## What to Include:

- Response procedures
  - Staff response
  - Emergency response
  - Contacts for service/repairs
- Backup systems/plans
  - Emergency water production
  - Backup generator, fuel source, amount of operation time
  - Mutual aid

# ERP Practical Guidelines – What to Include

- Local emergency contacts
  - Fire Department, Police/Sheriff, EMS
  - County Emergency Management
  - Spill Response/Hazmat
- Public notification and communication strategies
  - Government officials, hospitals, schools, users with critical needs
  - Local media

# ERP Resources

- [Emergency Response Plan Template and Instructions](#) from EPA



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# ERP Resources

- Wisconsin Rural Water Association  
<https://www.wrwa.org/emergency-preparedness/>
  - ERP Template
  - Statewide Listing of Emergency Contacts
  - Emergency Chlorination

A Basic  
**EMERGENCY RESPONSE  
PLAN TEMPLATE**  
For Wisconsin Water Systems



# ERP Resources

- Wisconsin Rural Water Association

Emergency Chlorination Plan

**Waterworks**

**Contacts & Phone Numbers**

## **WISCONSIN EMERGENCY CONTACT LISTING**

If available, all numbers listed are 24-hour emergency numbers. Also, most phone, gas, and electric utilities in Wisconsin use the Digger's Hotline number shown for emergency location purposes. If you are in doubt about the utilities in your area, you should contact them directly to receive their emergency contact information.

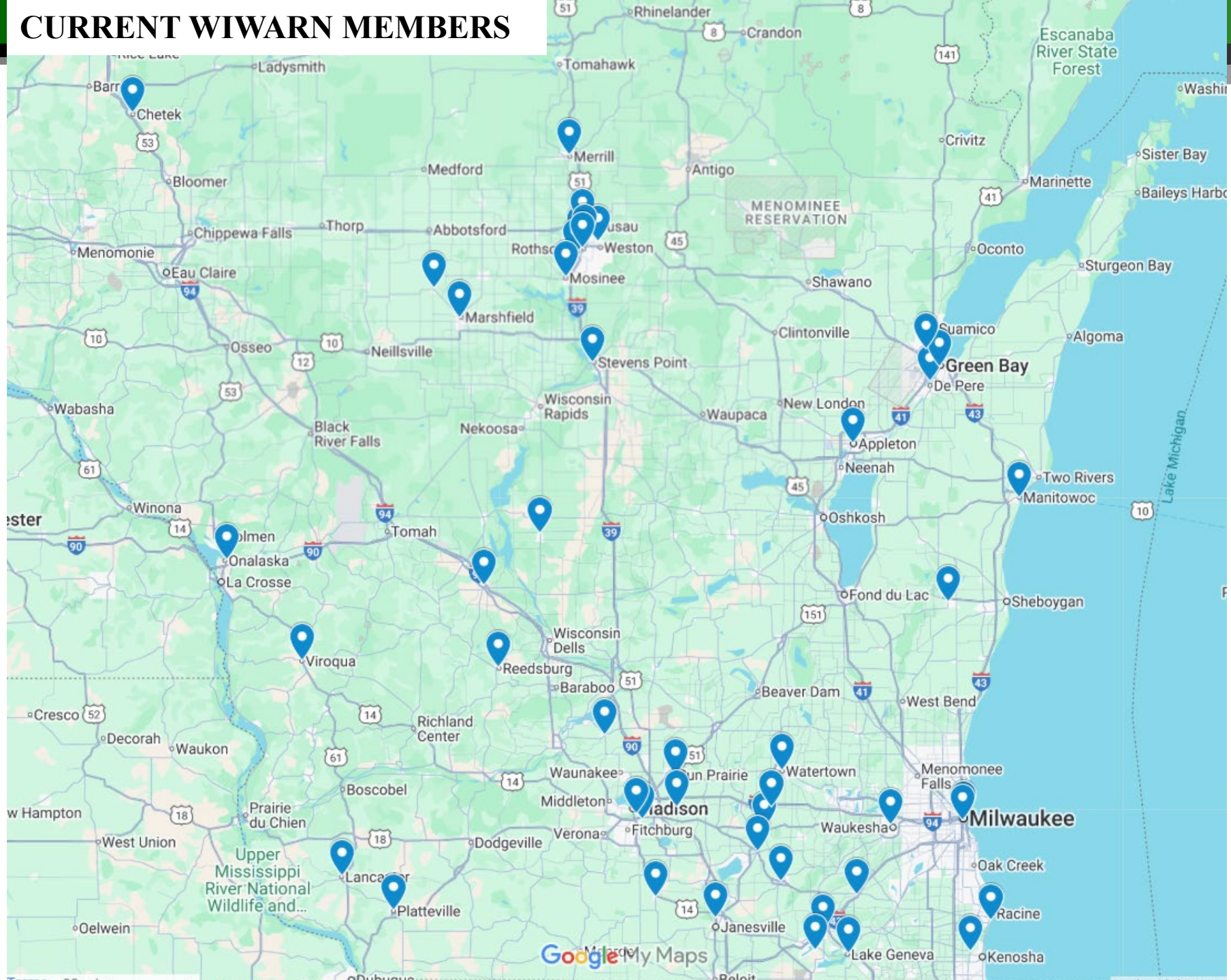
<b>Agency</b>	<b>Coverage Area</b>	<b>Phone</b>
Centers for Disease Control & Prevention (CDC)	Nationwide	770-488-7100
Digger's Hotline	Statewide	800-242-8511
Environmental Protection Agency (EPA)	Nationwide	800-426-4791
Federal Bureau of Investigation (FBI)	National Office	202-324-3000
"	State Office	414-276-4684
Information Sharing and Analysis Center (ISAC)	Nationwide	202-331-0479
National Spill Response Center	Nationwide	800-424-8802
Wis. Dept. of Health & Family Services	Statewide	800-222-1222
Wis. Emergency Management Agency	Statewide	800-943-0003
Wis. Emergency Police Services	Statewide	715-834-8541
"	East Central Region	920-929-3730
"	Northeast Region	715-845-9517
"	Northwest Region	715-635-8704
"	Southeast Region	262-782-1515
"	Southwest Region	608-242-3336
"	West Central Region	715-839-3825
Wis. Rural Water Association	Statewide	715-344-7778
Wis. State Lab of Hygiene	Statewide	608-263-3280
Wis. State Spill Response	Statewide	800-943-0003
Wis. State Patrol Headquarters (Madison)	Statewide	608-266-3212
Wis. State Patrol- District 1 Office (DeForest)	Columbia, Dane, Grant, Green, Iowa, LaFayette	608-846-8500



# ERP Resources

- Wisconsin Water and Wastewater Agency Response Network (WIWARN) - “Utilities helping Utilities” respond to and recover from emergencies by sharing resources with one another  
[https://www.wiawwa.org/page/WIWARN\\_Homepage](https://www.wiawwa.org/page/WIWARN_Homepage)
  - Common Mutual Aid and Assistance agreement (MAA)
  - No cost to become a member
  - If a utility receives a request for assistance, they are not required to respond if they are unable to do so

## CURRENT WIWARN MEMBERS



# ERP Resources

- Cybersecurity Incident Action Checklist
  - Tool from EPA to help utilities prepare for, respond to, and recover from a cyber incident through a checklist of activities
  - Checklist can be added to an ERP to address cybersecurity response

# Key Takeaways

- RRA and ERP are required for water systems serving **more than 3,300 people**
- Documents initially required in 2021
- Review and update of documents required in 2026
  - June 30, 2026 for RRA
  - December 31, 2026 for ERP
- Certifications are due to the EPA (not the DNR)

# Key Takeaways

- Several free resources are available, including templates to create these plans
- **Every water system should have an Emergency Response Plan**
  - Treat this as a living document
  - Review/update regularly

# Questions?



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