

# Water System Emergency Response Plan Template

For water systems serving 3,300 people or less

## Background:

All Community and Non-transient, Non-community water systems in Oregon are required to develop a written emergency response plan (ERP) as described in [OAR 333-061-0064\(1\)](#). Drinking Water Services (DWS) developed this template to assist operators and managers in meeting the requirement. Having a current and effective plan ensures that water systems can prepare for and respond to emergencies while protecting public health with minimal service disruptions. This can help water providers assess their system's vulnerabilities and ability to prepare for and respond to natural and man-made hazards and emergencies.

DWS requires water system staff be trained in the use of the ERP and that it is accessible to staff during emergencies. The ERP should be updated at least every 5 years or when changes to the water system or personnel are made. If your water system already has an existing ERP that lacks any of the elements included in this packet, please amend, and organize the plan to best suit your water system's needs and priorities.

Contents of this template:

- Emergency Response Plan (required)
  - Emergency Procedures
  - Chain of Command
  - Emergency Contacts List
  - Notification Procedures
- Risk Assessment (optional)
  - Physical Security
  - Risk Mitigation
- Additional Resources for Water Systems

## Emergency Response Plan

[Public Water System Name]

[PWS #41-0000]

### Emergency Procedures

Use the following table to describe procedures for staff to complete during emergency situations, who to notify, and follow-up actions. Make a note in the “procedure” column to reference any pre-existing procedures utilized by the system. Emergencies can include power outage, watermain breaks, loss of pressure, disinfection, or other treatment failures, microbial or chemical contamination over the MCL, oil spills affecting source water, flooding, or other natural and man-made emergencies. Unlock this document to insert additional rows/columns and add other emergency types that can impact the water system.

Emergency Type	Procedure	Designated Staff
[Example: loss of electrical power]		
[Example: loss of pressure in distribution system]		
[Example: disruption of disinfection or other treatment]		
[Example: detection of E. coli or chemical contaminant over the MCL]		
[Example: treatment plant shutdown procedure]		
[Example: wildfires]		

In any event, take these general steps:

1. Confirm and analyze the type and severity of the emergency
2. Take immediate action to reduce injuries, save lives and prevent system damage
3. Make repairs based on priority demand
4. Take steps to return your system to normal operations

**Chain of Command**

(review and update this annually if needed)

Staff Name & Title	Responsibilities During Emergencies	Emergency Contact Info

Where will the Emergency Response Plan be stored? \_\_\_\_\_

Have all personnel listed above been trained in the use of this plan? Yes  No

Would they all have access to the stored plan in an emergency? Yes  No

**Emergency Contacts List**

(review and update annually if needed)

If you have questions anytime, call OHA Drinking Water Services

<b>Organization</b>	<b>Contact Name</b>	<b>Contact Info</b>	<b>After Hours Info</b>
OHA Drinking Water Services		<b>(971) 673-0405</b>	<b>(971) 704-1174</b>
County Health Department			
Fire Department			
Law Enforcement			
Emergency Management Agency			
Lab			
Equipment or Chemical Supply			
Cybersecurity Emergency Response	Cybersecurity & Infrastructure Security Agency Region 10	CISARegion10@hq.dhs.gov	888-282-0870
Engineering Company			
Electrical Utilities			
Alternate Water Suppliers			
Pump Maintenance Company			
Media			
Medical Facilities			
Nursing/Rehab Facilities			
Day Care Centers			
Schools			

**To Report a Drinking Water Emergency**

Be prepared provide the following when contacting Drinking Water Services or your County Health Department.

1. Your name, address, phone number, current location
2. Type of incident
3. Exact location of incident
4. The date and time the incident occurred
5. Nature of threat to the water system

**Notification Procedures**

If your system does not have procedures in place for notifying customers, your primacy agency or other important contacts use the following chart to identify steps to be taken and by whom. Water systems should consider identifying vulnerable populations they are serving and notifying them during a water advisory or emergency. Customers serving vulnerable populations can include hospitals, daycares, schools, nursing homes or rehabilitation facilities, etc.

**Notify water system customers**

<b>Who is responsible?</b>	
<b>Procedure:</b>	

**Notify local/state drinking water services, emergency managers, local public health officials**

<b>Who is responsible?</b>	
<b>Procedure:</b>	

**Emergency intertie, alternate water sources**

<b>Who is responsible?</b>	
<b>Procedure:</b>	

**Issuing a boil water advisory or public health issue**

<b>Who is responsible?</b>	
<b>Procedure:</b>	

## Risk Assessment (optional)

Conducting a risk assessment can identify hazards likely to impact your system, strategies, procedures, and equipment that can improve water system resiliency and be implemented during an emergency. You can use the findings of the risk assessment to understand actions and procedures needed to improve the system’s resiliency to future emergencies.

1. List the critical elements of your system (source water, intake, pre-treatment and treatment facilities, storage and distribution system, computer and automated systems, financial infrastructure, chemical storage, monitoring practices, procedures, etc.):

\_\_\_\_\_

2. Use the checklist below to list hazards that are likely to affect critical components and assets of your system.

Natural Hazards

- Flooding
- Earthquake
- Landslide
- Windstorm
- Ice/Snowstorm
- Tsunami
- Cyanotoxins/HABs
- Wildfire
- Drought
- Other (list here)

Critical Components at Risk to this Hazard

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

Man-Made Hazards or Malevolent Acts

- Physical attacks
- Theft
- Source water contamination
- Intentional or accidental contamination of finished water
- Cyberattack on process control or automated system
- Cyberattack on financial infrastructure
- Other (list here)

Critical Components at Risk to this Hazard

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

3. Use the checklist below to list existing response procedures utilized by the water system during an emergency, include the procedure location and any other important info in the comments.

<u>Existing Procedures</u>	<u>Comments</u>
<input type="checkbox"/> Loss of electrical power	_____
<input type="checkbox"/> Loss of pressure in the distribution system	_____
<input type="checkbox"/> Disruption or failure of disinfection or treatment systems	_____
<input type="checkbox"/> <i>E. coli</i> bacteria or other contaminant detection over the MCL	_____
<input type="checkbox"/> Notifying customers of service interruptions, water advisories, chemical detections, etc.	_____
<input type="checkbox"/> Other - list here	_____

**Physical Security**

**Wells/spring/intake protective structures,**

**pumphouses, offices and treatment plants: Yes No Comments**

Locks on all doors	<input type="checkbox"/>	<input type="checkbox"/>	_____
All windows secured	<input type="checkbox"/>	<input type="checkbox"/>	_____
Adequate alarms, motion sensors, video cameras or security lighting	<input type="checkbox"/>	<input type="checkbox"/>	_____
Entry restricted to authorized personnel	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemicals are properly stored	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemical storage is locked and posted	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fencing around buildings (if needed)	<input type="checkbox"/>	<input type="checkbox"/>	_____

**Reservoirs or storage tanks: Yes No Comments**

Fenced area around reservoir/storage tank	<input type="checkbox"/>	<input type="checkbox"/>	_____
Access gate is locked and posted	<input type="checkbox"/>	<input type="checkbox"/>	_____
Ladder guard and access hatches locked	<input type="checkbox"/>	<input type="checkbox"/>	_____
Adequate security lighting	<input type="checkbox"/>	<input type="checkbox"/>	_____
Working motion sensors or video surveillance	<input type="checkbox"/>	<input type="checkbox"/>	_____
Vents and overflow pipes are properly protected with screens and/or grates	<input type="checkbox"/>	<input type="checkbox"/>	_____

<b>Distribution system:</b>	<b><u>Yes</u></b>	<b><u>No</u></b>	<b><u>Comments</u></b>
Manholes, hydrants, and other access points are secured	<input type="checkbox"/>	<input type="checkbox"/>	_____
Positive pressure is monitored and maintained	<input type="checkbox"/>	<input type="checkbox"/>	_____
Backflow protection plan implemented	<input type="checkbox"/>	<input type="checkbox"/>	_____
 <b>Procedures:</b>			
All facilities locked and alarms set	<input type="checkbox"/>	<input type="checkbox"/>	_____
Background checks done for new hires	<input type="checkbox"/>	<input type="checkbox"/>	_____
Employees are regularly trained and have participated in exercises or drills	<input type="checkbox"/>	<input type="checkbox"/>	_____
Visitors or contractors checked in/out	<input type="checkbox"/>	<input type="checkbox"/>	_____
Passcodes/keys/access changed when employees are no longer employed	<input type="checkbox"/>	<input type="checkbox"/>	_____
Emergency notification procedures up to date	<input type="checkbox"/>	<input type="checkbox"/>	_____



**Risk Mitigation**

After completing the risk assessment, DWS recommends reviewing actions needed to improve the system’s preparedness or ability to “bounce back” after an emergency.

<b>Actions to Mitigate Risk</b>	<b>Description</b> Briefly describe steps to complete the mitigation actions and how they could reduce risks that could impact the water system.
[Example: complete written protocols for under-certified operators]	
[Example: develop procedures for public notifications]	
[Example: obtain and install auxiliary power for pumps, disinfection or treatment systems]	
[Example: coordinate with local emergency management agency, key partners, and critical customers (hospitals, day-care facilities, etc.)]	

## **Additional Resources for Water Systems**

- DWS Emergency Preparedness and Planning web page with resources  
<https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PREPAREDNESS/Pages/emergency.aspx>
- EPA's free online vulnerability self-assessment tool (VSAT):  
<https://www.epa.gov/waterriskassessment/conduct-drinking-water-or-wastewater-utility-risk-assessment>
- Incident Action Checklists for Water Systems:  
<https://www.epa.gov/waterutilityresponse/incident-action-checklists-water-utilities>
- Water contamination response guidance and response template developed by the EPA:  
<https://www.epa.gov/waterqualitysurveillance/water-contamination-response-resources>
- Designing for physical security monitoring: [https://www.epa.gov/sites/default/files/2017-11/documents/esm\\_design\\_guidance\\_2017-11-02.pdf](https://www.epa.gov/sites/default/files/2017-11/documents/esm_design_guidance_2017-11-02.pdf)
- EPA's free cybersecurity assessment and technical assistance for water systems:  
<https://www.epa.gov/system/files/documents/2021-07/technicalassistanceflyerupdate-hwg.pdf>
- Cybersecurity advice from the Cybersecurity & Infrastructure Security Agency (CISA):  
<https://www.cisa.gov/uscert/ncas/tips>
- Oregon Water/Wastewater Agency Response Network:  
<http://www.orwarn.org/about.aspx>