

# Emergency Response Plan Guidance for Wastewater Systems

The overall purpose of an Emergency Response Plan (ERP) is to provide a wastewater system with a standardized response and recovery protocol to prevent, minimize, and mitigate injury and damage resulting from emergencies or disasters of man-made or natural origin. The ERP also provides a description of how a wastewater system will respond to potential threats or actual terrorist scenarios identified in the vulnerability assessment (VA), as well as additional emergency response situations. Specific Action Plans (APs) should also be included in the ERP, which will be used to respond to events and incidents.

Research regarding the status of emergency response planning within the water quality community indicates that most systems would welcome guidance with the emergency planning process. This report provides wastewater systems with voluntary guidance on developing, updating and revising emergency response plans for natural or man-made (i.e., terrorist-related) events. It also provides a reference of the types of information and data that should be included in an emergency response plan and includes discussions and content sugges-

tions for the elements that are typically included in an ERP and the rationale for their inclusion. This guidance document does not implement any specific statutory directive, and it does not establish any requirements. Before beginning any emergency planning, wastewater system managers would be well advised to be familiar with local, state, and federal regulations that may affect the system's emergency planning program.

The goals of an Emergency Response Plan are to document and understand the steps needed to

- Rapidly restore wastewater service after an emergency.
- Minimize wastewater system damage.
- Minimize impact and loss to customers.
- Minimize negative impacts on public health and employee safety.
- Minimize adverse effects on the environment.
- Provide emergency public information concerning customer service.
- Provide wastewater system information for first responders and other outside agencies.
- Ensure effective communication between all those involved in an emergency.

## BENEFITS

- Supports the development of wastewater system emergency response plans.
- Illustrates important emergency planning concepts in a wastewater system.
- Provides a starting point for the development of action plans that can be used by a wastewater system.
- Enables wastewater systems to save time and money by using the guidance document as a template for their emergency response plan.
- Provides guidance regarding man-made or terrorist-related threats that historically have not been addressed in wastewater system emergency response planning efforts.

## RELATED ONGOING RESEARCH

Identify, Screen, and Treat Contaminants to Ensure Wastewater Security (03-CTS-2S)

Security Measures for Computerized and Automated Systems at Water and Wastewater Facilities (03-CTS-3S)

Emergency Communications with Your Local Government and Community (03-CTS-5S)

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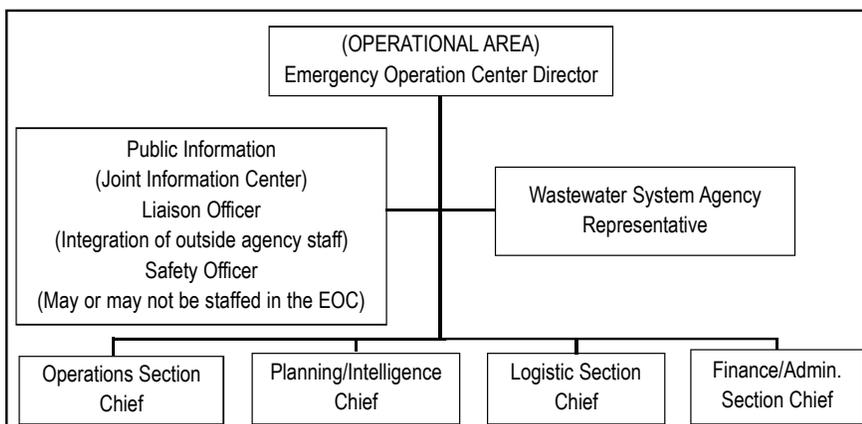


Figure 1: Typical Emergency Operations Center.

The wastewater system should also examine its organizational goals and mission statements to see if there are any additional objectives that apply to the ERP.

### ERP Organization

The report's authors recommend that the ERP should be organized into several logical sections, so that information is easy to find. Appendices should be used for supplementary material such as site and system drawings, phone contact lists, forms and checklists, pre-written press releases, and incident-specific action plans. The specific ERP organization and format chosen needs to reflect the wastewater system's usual documentation approach and format standards. The report recommends that a wastewater treatment facility include the following in an ERP:

**Section 1:** Introduction. Describes the purpose, goals, access control protocol, and overall organization of the ERP.

**Section 2:** General Emergency Planning Information. Describes emergency planning partnerships, mutual aid agreements with others in the community, and the relationship between the ERP and the wastewater system's other emergency response policies, procedures, and documents.

**Section 3:** Emergency Response Plan—Core Elements. Provides specific information about the wastewater system, presents emergency response roles and responsibilities and chain-of-command information, and describes communication procedures, personnel safety provisions, and emergency wastewater storage and disposal provisions. This section also provides information and procedures regarding emergency equipment and chemical supplies, property protection, and sampling and monitoring.

**Section 4:** Decision Process and ERP Activation. Explains how threats may be received into the wastewater system as well as what steps to take in order to activate the Emergency Response Plan and the Emergency Operations Center (EOC).

**Section 5:** Emergency Response, Restoration, and Recovery. Describes the three phases of an emergency: response, recovery, and termination. General actions

and guidance is provided for each phase, and these procedures should be used in conjunction with the specific action plans in the appendix.

**Section 6:** Action Plans. Presents a summary of the incident-specific action plans that the wastewater system has created to respond to and recover from threats that have been categorized as high risk in the vulnerability assessment. There may also be action plans for natural disasters and other significant events. The actual action plans are typically found in the appendix of the ERP.

**Section 7:** Emergency Plan Approval, Update, and Training. Describes the ERP review, approval, and update process; discusses evaluation of the effectiveness of the ERP; and provides information on the wastewater system's ERP training program.

**Section 8:** Additional Resources. Provides references and web links to additional emergency planning information for wastewater systems.

**Appendices:** Contain specific action plans, forms, worksheets, press releases, and other information that will be used to respond to emergencies.

### Partnerships and Communication

The emergency planning process also encourages wastewater agencies to form

partnerships with emergency response organizations and formal mutual aid agreements with other agencies to address any deficiencies in equipment, parts, or chemical supplies needed to meet emergency conditions. The report recommends that wastewater systems consult with outside agencies, including local first responders and emergency response organizations. Through these partnerships, each party comes to know and understand their roles and responsibilities in emergency situations. Partnerships may also be formed with neighboring utilities. According to the report, the wastewater system emergency response manager should be heavily involved in forming these partnerships.

The report also stresses that appropriate and timely communication is vital to effective emergency response. When an emergency occurs, panic and confusion can lead to a chaotic response effort, according to the authors. Therefore, it is imperative for the wastewater system to have established communication procedures in place. It's also crucial for the wastewater system to practice the communication and notification procedures on a regular basis to ensure that the procedures are effective during a real emergency.

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