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Agency

Developing Risk Communication Plans for Drinking Water Contamination Incidents

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List of Acronyms

The list below includes acronyms used in this guidance document. Acronyms are also defined at first use in the document.

CDC	Centers for Disease Control and Prevention
CFR	Code of Federal Regulations
CMP	Consequence Management Plan
DHS	U.S. Department of Homeland Security
EAP	Emergency Action Procedure
EMA	Emergency Management Agency
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
ERP	Emergency Response Plan
FEMA	Federal Emergency Management Agency
FBI	Federal Bureau of Investigation
HazMat	Hazardous Materials
HSEEP	Homeland Security Exercise and Evaluation Program
IC	Incident Commander
ICS	Incident Command System
JIC	Joint Information Center
JIS	Joint Information System
NIMS	National Incident Management System
NRC	National Response Center
PIO	Public Information Officer
PN	Public Notification
RCP	Risk Communication Plan
TBD	To be determined
UC	Unified Command

Section 1.0: Introduction

1.1 What Is the Purpose of this Document?

The purpose of this document is to assist drinking water utilities with developing and implementing an effective Risk Communication Plan (RCP) to respond to drinking water contamination incidents.   This document was developed as a companion to the *Water Security Initiative: Interim Guidance on Developing Consequence Management Plans for Drinking Water Utilities* (EPA, 2008) and the *Response Protocol Toolbox (RPTB): Planning for and Responding to Drinking Water Contamination Threats and Incidents* (EPA, 2004), which provide guidance to drinking water utilities regarding planning, designing, implementing, and maintaining an effective drinking water contamination incident Emergency Action Procedure (EAP).

1.2 What is an RCP for Drinking Water Contamination Incidents?

Communication during a drinking water contamination incident is critical and involves relaying information to employees, government agencies, the public, the media, and others about potential risks to health, infrastructure, and the environment. This information should be presented in a timely and accurate manner to enhance understanding of an incident, build trust and credibility, encourage constructive dialogue, and provide guidance on appropriate protective behavior following a crisis incident. The purpose of an RCP is to guide utility personnel on when and how to communicate, how to compose messages, how to work with response partners and the media, and how to develop a delivery system for messages.

1.3 Why Should a Drinking Water Utility Develop an RCP to Respond to Drinking Water Contamination Incidents?

Water utilities can derive many benefits by developing and implementing an RCP, including the ability to provide timely, accurate, and helpful information both internally and externally. Many communication decisions and activities are identified during RCP development, leaving fewer actions to be determined under the pressure of a crisis situation. Overall, this enhances the ability of utility personnel to provide a proactive, quick, and effective response during an emergency. In addition, developing an RCP provides the opportunity to coordinate with response partner organizations in order to prepare and plan for mobilizing shared resources during an incident.

1.4 How Does the RCP Relate to other Utility Emergency Planning Documents?

The RCP is ultimately a component of the utility Emergency Response Plan (ERP). It is part of a contamination incident specific EAP (e.g., Consequence Management Plan) that focuses on response during and following a drinking water contamination incident in the distribution system. The RCP specifically details the responsibilities of the utility Public Information Officer (PIO) and communications staff during all phases of a contamination incident.

Figure 1 outlines the basic relationship between the utility ERP and the RCP. The RCP fits within the Communication Procedures component of the utility ERP. Communication procedures apply to all types of water system emergencies. These procedures identify communication channels for utility staff and personnel, external agencies, and the public/media (EPA, 2004a). While the RCP is intended to be part of a contamination incident specific EAP, much of the information is relevant to the utility's overall emergency communication procedures, and should be aligned with those procedures to create a cohesive system for emergency response communications.
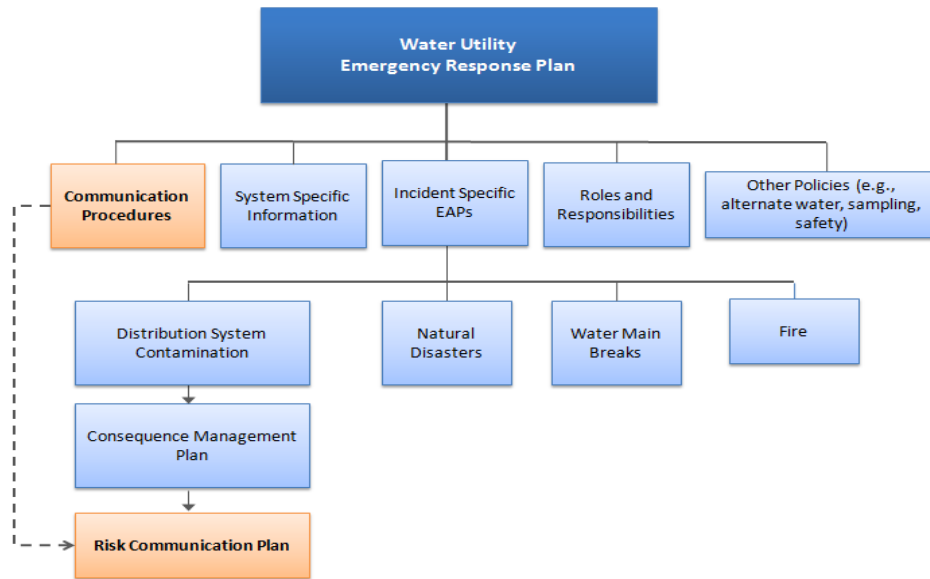
Figure 1. Relationship of RCP to Communication Procedures in a Typical Utility ERP

1.5 Who Should Use this Document?

EPA developed the RCP guidance document for drinking water utilities, and the document specifically targets the PIO and other communication staff. While the primary focus of this document is on large utilities with communications staff, there are many applications and considerations that may be applicable to medium and small utilities as well. The RCP guidance document could also serve as a useful tool for other organizations, such as wastewater utilities and emergency responders, in developing communication plans. In addition, this document provides a framework for integration of an RCP with existing communication plans and outreach efforts to local, state, regional, and federal agencies.

1.6 How Do I Use this Document?

This document is divided into two sections, with corresponding appendices that provide guidance for developing and implementing an RCP. It provides recommendations, details, and background information on the content of the plan (Section 2.0); a framework or approach for developing and implementing the plan (Section 3.0); and templates, tools, and resources for RCP development and implementation (Appendices). Tips and success stories are also highlighted throughout the document.

Section 2.0: Risk Communication Plan Overview

This section provides background information useful in developing the content of an RCP. First, it provides an overview of an RCP and the progressive phases of a contamination incident. Second, it explains the application of the National Incident Management System (NIMS)/Incident Command System (ICS) and how risk communication is integral to a utility's ICS. Finally, this section discusses Public Notification (PN) and public outreach, explaining the differences and similarities, and the regulatory requirements and guidelines for PN.

2.1 Overview of Consequence Management and Risk Communication

A comprehensive RCP for drinking water contamination incidents consists of three main components:

1. **Identifying Roles and Responsibilities**

2. **Outlining Public Information Actions**

3. **Developing Communication Templates**

2.1.1 Roles and Responsibilities

Effective operation of an RCP involves the participation of utility personnel and response partner agencies, each having well-defined roles and responsibilities. The utility RCP should identify the roles, duties, and responsibilities in a manner that works well for the individual utility while matching the roles and responsibilities of the utility's ICS structure and those of response partners. The roles and responsibilities outlined in the RCP should provide the utility a description of what communication/public information actions it should be prepared to do during a potential contamination incident and what is expected from local, state, and federal supporting agencies. Roles and responsibilities of supporting agencies should be determined prior to completion of the RCP. Refer to Section 3.2 for a detailed discussion on the roles and responsibilities of the utility and response partner agencies.

> **TIP**
>
> Keep in mind that utility-specific ICS structures may vary from the classic emergency response organizational format. When defining and assigning RCP roles and responsibilities, it is crucial that the RCP is aligned with the utility ICS structure.

2.1.2 Public Information Actions

Public information actions to be performed by the appropriate personnel should be outlined for each phase of a contamination incident (e.g., possible, credible, and confirmed) as indicated in the utility drinking water contamination incident response procedures. Public information actions may include developing communication plans and strategies, coordinating with response partner agencies, preparing and disseminating notifications, coordinating press briefings, and arranging public meetings.

Table 1 provides an example of an effective drinking water contamination incident response plan (e.g., Consequence Management Plan) and related public information actions for each incident phase.

Important!
In Table 1 and throughout this guidance document, EPA uses the possible, credible, and confirmed threat level determination phase terminology as previously used in corresponding EPA guidance[1]. EPA understands that not all utilities use the same terminology or phased approach, so plans can be modified as appropriate to meet the needs of your utility.

Table 1. Overview of Public Information Actions during a Contamination Incident

Contamination Incident Phases	Key Actions During Each Phase	Information Actions During All Phases
Possible – *there are initial indications of a possible contamination incident within the distribution system*	• Implement RCP and develop initial PN strategy	Employee Notification
Credible – *there is evidence that corroborates initial indications of contamination incident within the distribution system*	• Issue PN if required • Revise PN strategy as new information becomes available	Response Partner Agency Coordination
Confirmed – *there is conclusive evidence, either through sample results or preponderance of evidence, that contamination is present within the distribution system*	• Continue PN • Revise as necessary	Public Outreach
Remediation and Recovery – *contamination is contained and remedial actions are identified and implemented until water is determined to be safe to use/drink*	• Continue PN • Revise as necessary	Media Tracking

As indicated in Table 1 during the possible contamination phase, the RCP is initiated and the appropriate communication staff is assembled to begin planning. During the credible phase, utility and regulatory agency staff are determining whether PN (e.g., boil water, do not drink, do not use) is required. Communication staff is continuing other communication actions initiated during the possible phase, including employee and response partner agency notifications, media tracking, etc. Finally, when contamination is confirmed, PNs are issued and/or revised (as appropriate) as new information about the contamination incident becomes available. Refer to Section 3.3 for more detailed information on specific public information actions for each incident phase.

2.1.3 Communication Templates

Pre-established messages and templates are a critical component of a utility RCP. They save valuable time during an incident since they can be easily used for a variety of tasks. Communication templates may include, but are not limited to, media tracking reports, message

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[1] Refer to the *Water Security Initiative: Interim Guidance on Developing Consequence Management Plans for Drinking Water Utilities* (EPA, 2008), and the *Response Protocol Toolbox (RPTB): Planning for and Responding to Drinking Water Contamination Threats and Incidents* (EPA, 2004) for additional information on contamination incident phases.

maps, public notifications, event logs, and post-advisory community surveys. Refer to Section 3.4 for additional information on communication templates.

2.2 Application of NIMS and ICS within the RCP

Risk communication is a key aspect within the NIMS (FEMA, 2008). Under NIMS, risk communication consists of the processes, procedures, and systems to communicate timely, accurate, and accessible information on the incident's cause, size, and current situation to the public, responders, and additional stakeholders (both directly and indirectly affected). In order to facilitate this process, public information and risk communication make use of three elements: the PIO, the Joint Information Center (JIC), and the Joint Information System (JIS).

As an incident escalates, the utility ICS may become part of a broader Unified Command (UC). Under UC, the utility Incident Commander (IC) may be called to the city Emergency Operations Center (EOC) and the PIO may become part of the JIC. The JIC is a physical location where public affairs professionals from all the response partner agencies work together using the procedures and protocols of a JIS to provide critical emergency information, crisis communications, and other public affairs support. As shown in Figure 2, a lead PIO will oversee the JIC, and provide overall communication policy direction.
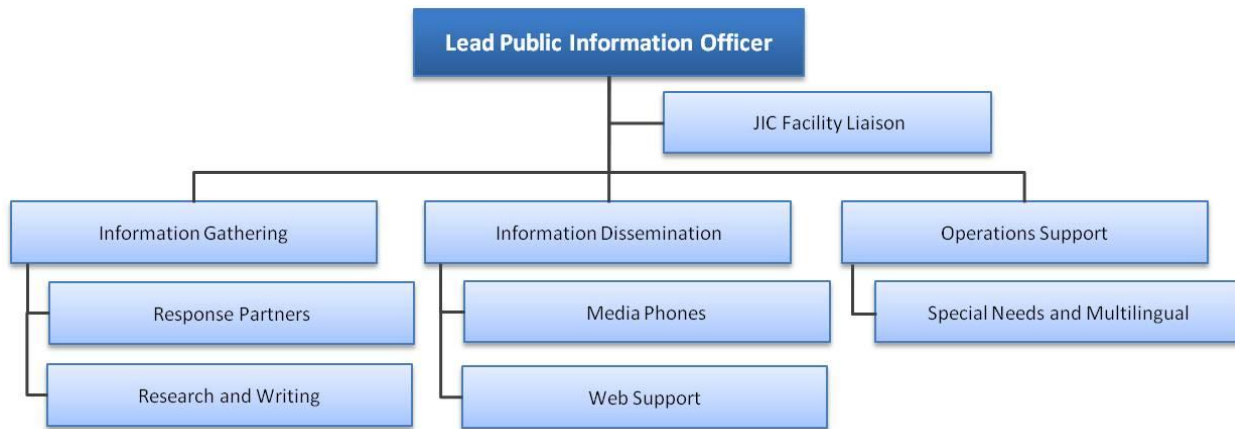
Figure 2. Role and Function of a Lead Public Information Officer at a Joint Information Center (Source: FEMA)

Other PIOs at the JIC can expect to work performing a variety of functions in areas such as information gathering (e.g., media tracking, assessing media needs, establishing lines of communication with the EOC), information dissemination (e.g., creating fact sheets, language translation), operations support (e.g., create web site, activate hotline), and liaison duties (e.g., communication with elected officials, VIPs) (FEMA, 2007).

In addition, a JIC is a central location that facilitates the operation of the JIS. A JIS provides the mechanism to organize, integrate, and coordinate information to ensure timely, accurate, accessible, and consistent messaging across multiple jurisdictions and/or disciplines with nongovernmental organizations and the private sector. A JIS includes the plans, protocols, and structures used to provide public information. Figure 3 shows the relationships between multiple PIOs and JICs as part of a JIS for an incident.
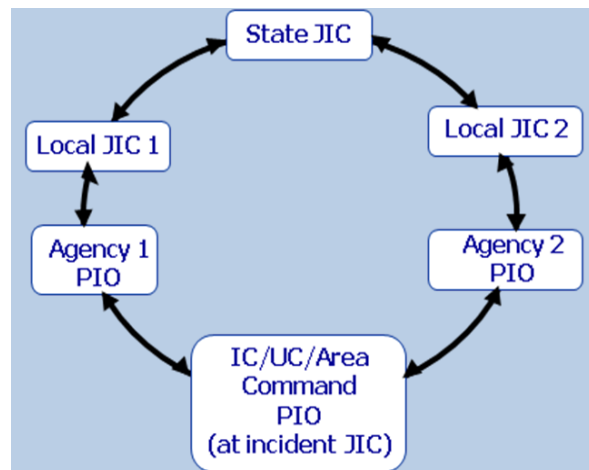
Figure 3. The Joint Information System

In Figure 3, the arrows represent the protocols agreed upon by public information staff to ensure that needed incident information flows back and forth between all jurisdictional levels, off-site PIOs, and multiple JICs (e.g., local, state, and UC incident JICs). This ensures message consistency across all public information/risk communication staff. Not all incidents will involve multiple PIOs or JICs. However, the PIO may wish to coordinate operating procedures and protocols in advance with response partners so that an effective JIS may be implemented during a water contamination incident.

Overall, development of the RCP should take into account the implementation of ICS by the utility in managing the planning, tactical, logistical, financial/administrative, and risk communication issues in response to a drinking water contamination incident. One of the first steps should be to ensure that staff members involved in implementing the RCP (such as the PIO) have basic NIMS and ICS training. In addition, more advanced position-specific training is available for individuals who may serve in the PIO role[2].

2.3 Public Outreach and Notification

External risk communication includes both public outreach and PN. It is important to understand the differences between these activities and know when and how to use them within the context of the RCP.

2.3.1 Public Outreach

Public outreach is the overarching activity for communicating with the public during both non-emergencies and emergencies. It is a useful tool for utilities to use prior to, during, and following a crisis incident. The purpose of public outreach is to provide the public with updated information regarding utility activities. During potential incidents, it may be used to prevent

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[2] Additional information on NIMS and ICS training can be found online at EPA's NIMS workshop website: http://water.epa.gov/infrastructure/watersecurity/emerplan/index.cfm, FEMA's Independent Study website http://training.fema.gov/IS/, or by contacting your state's Emergency Management Agency (EMA) or Office of Homeland Security at: http://www.fema.gov/about/contact/statedr.shtm

public panic, to inform the public that the utility is investigating anomalies in the distribution system, and to provide updated information to better protect public health. Some methods of public outreach include websites, fact sheets, press releases, and television and radio interviews.

2.3.2 Public Notification Requirements and Guidelines

Public water systems are required by law to prepare and distribute PNs to consumers in accordance with EPA regulations (40 CFR 141, Subpart Q). PN is designed to protect public health by making sure people within a utility's service area know about water quality issues and how to protect themselves from potential risks. PN of drinking water violations and other situations provides a way to educate the public and protect public health (EPA, 2010).

When the utility determines that a contamination threat is credible, it must consult with its primacy agency to determine if PN is required. Under Federal regulations, PN is required for "situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the primacy agency either in its regulations or on a case-by-case basis" (40 CFR 141, Subpart Q). The utility must initiate consultation with the State primacy agency to determine public notification requirements as soon as practical, but no later than 24 hours after learning of the situation. These situations require a Tier 1 public notice. See 40 CFR 141, Subpart Q for information on the form, manner, and frequency of a Tier 1 public notice.

> **TIP**
>
> CDC's Drinking Water Advisory Communication Toolbox (CDC, 2011) provides information on how to plan for, develop, implement, and evaluate drinking water advisories (e.g., PN), which is another key component of a comprehensive RCP. The purpose of the Toolbox is to enable water systems to communicate effectively with partners and the public in order to protect public health. The Toolbox complements EPA's PN Handbook.
>
> http://www.cdc.gov/healthywater/pdf/emergency/drinking-water-advisory-communication-toolbox.pdf

To assist in developing PNs, EPA issued the Revised Public Notification Handbook in 2010[3]. The handbook is designed to meet the needs of public water systems of all sizes, including suggestions and instructions targeted to very small community systems (systems that serve 500 people or fewer). It provides instructions and includes templates that can be used for various types of public notices. There are many channels by which PNs can be disseminated. Appendix A.1 lists various notification channels for utilities to consider during a crisis, along with some of the associated pros and cons of using them.

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[3] Refer to the following websites for additional information on Public Notification:
http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/upload/PNrevisedPNHandbookMarch2010.pdf
http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/

Section 3.0: Constructing the Risk Communication Plan

This section serves as a roadmap for developing and constructing a utility-specific RCP. The construction of a comprehensive RCP should include the following five sequential steps:

Step 1:
Assess and integrate existing plans, resources, and capabilities

Step 2:
Identify roles and responsibilities

Step 3:
Outline public information actions

Step 4:
Develop key messages and templates

Step 5:
Conduct Training & Exercises
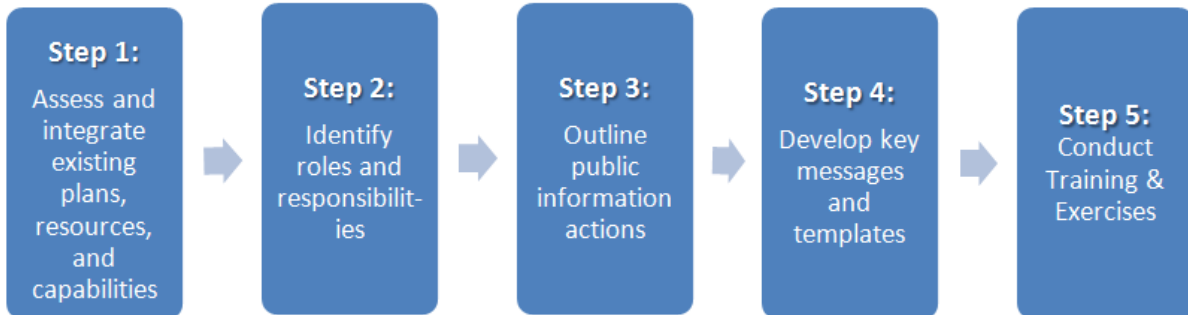
3.1 Step 1: Assess and Integrate Existing Plans, Resources, and Capabilities

The first step in developing an RCP should be to conduct an assessment of the utility's existing ERP; specifically as it pertains to risk communication resources and capabilities. The purpose of the assessment is to identify existing procedures that may serve as a starting point for constructing an RCP, and to determine how an RCP can be integrated into the utility's drinking water contamination incident response procedures. This will allow the utility to expand existing material, strengthen existing plans, and integrate current operations into the RCP. Appendix A.2 identifies the type of plans and response resources that may be available.

As plans are reviewed, a list or matrix should be constructed that captures the title of the plan, the situation it addresses, and what utility divisions and outside agencies are involved. This will help to identify gaps that need to be addressed during risk communication planning activities. As each existing plan is reviewed, consider how they are connected to each other and how they are likely connected to the RCP. When drafting the RCP, use a matrix similar to Appendix A.2 to establish links from the corresponding plans to the relevant RCP sections; then use the material from the existing response plans as a starting point for developing the RCP. The notes and comments in Appendix A.2 are for illustration purposes.

In addition to an assessment of existing emergency plans, the utility should conduct an assessment of response and communication resources and capabilities. This should involve identifying assets (e.g., staff, equipment) as well as training needs that are required to carry out the existing plans and operations. This includes ensuring that spokespersons are identified and media-trained, that all staff have been trained in response roles and procedures, and that key communication linkages (e.g., 800 MHz radios, auto-dialers), both internal and external, are in place.

Throughout the development of the RCP, the utility should maintain a list of items or resources that need to be acquired, enhanced, or improved. See Appendix A.2 for examples and Appendix A.3 for a discussion of public information venues. Later, during the final drafts of the plan and implementation, the list can be addressed and shortfalls in training, equipment and other resources can be resolved.

3.2 Step 2: Identify Roles and Responsibilities

The second step in developing an RCP is to identify the utility personnel and response partner agencies responsible for risk communication efforts during a contamination incident. This includes establishing communication roles, responsibilities, and reporting relationships.

3.2.1 Utility Roles and Responsibilities

During an incident, the risk communication function can be broken down into the six distinct utility roles described in Table 2. Ideally, there should be one person assigned to each role, although one person can handle additional roles depending on the extent of the emergency and the size of the utility. While other staff may be involved (e.g., IC, Liaison Officer), the PIO is ultimately responsible for all communication efforts, u`nless otherwise assigned by the IC. Each utility should create and define roles based on their own organizational structure and capabilities.

Table 2. Recommended Utility Risk Communication Roles

Role/Title	Potential Communication Responsibilities
Public Information Officer	• Activates the RCP after receiving authorization from the IC and directs the work related to the release of information. • Provides information to the public and other key internal and external audiences through such activities as developing and distributing printed and electronic notices, reports and informational materials; organizing and conducting special events (internal and external); and maintaining content on a web site. • Develops and maintains relationships and supports two-way communication with public and private stakeholders, community groups, and the news media. • Evaluates the need for and, as appropriate, establishes and operates a JIS. • Establishes a JIC, as necessary, to coordinate and disseminate accurate and timely incident-related information. • Maintains current information summaries and/or displays on the incident. • Provides information on the status of the incident to pertinent personnel. • May develop speeches and presentations for utility executives and craft responses to constituent inquiries received via letter, email, or telephone.
PIO Support Personnel (Assistants)	
Content and Message Coordinator	Develops mechanisms to receive information rapidly from the EOC/JIC regarding public health emergencies and works with available subject matter experts to create situation-specific fact sheets (e.g., "Q&A" fact sheets) and updates. Has information translated into foreign languages as necessary.
Media Coordinator	Assesses media needs (e.g., briefings, statements) and organizes mechanisms to fulfill those needs.
Direct Public Outreach Coordinator	Activates a telephone information line and crisis web site, and develops public service announcements.

Table 2 (continued). Recommended Utility Risk Communication Roles

PIO Support Personnel (Assistants)-continued	
Partner/Stakeholder Coordinator	Establishes communication protocols based on prearranged agreements with identified partners and stakeholders.
Media Tracker	Monitors internal and external communications, identifies misinformation, provides feedback on the quality of communication, takes action to correct false information, tracks media information releases, monitors news outlets and web sites, and dispels rumors.

The PIO, who typically serves on the Command Staff during an incident, should lead the development and implementation of the RCP, and coordinate with other ICS team members. This includes development and delivery of internal and external communications, coordination with other agencies and the media, and media tracking. Figure 4 shows the relationship of the PIO with other utility ICS staff during an incident response.
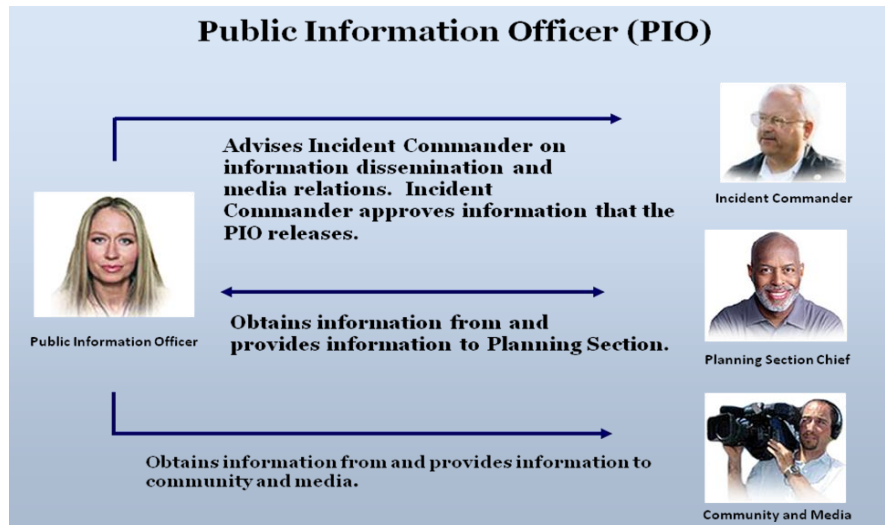
Figure 4. Role of the Public Information Officer during Incident Response

Although Table 2 and Figure 4 indicate only one individual in the PIO role, the PIO may employ one or more assistants to help with his or her responsibilities. These assistants or PIO staff supply the PIO with incident status updates and other detailed information concerning the incident to be used in developing communication materials, notifications, and briefings.

3.2.2   Potential Response Partner Agency Roles and Responsibilities

Local, state, and federal support agencies will carry out various response roles in risk communication during a drinking water contamination incident. For example, the State primacy agency and local or State public health agency will be involved in the PN process, and local law enforcement may assist in disseminating messages. Fire departments, local governments and other local/state/federal regulatory agencies may be involved as well. Utilities should identify key partners and stakeholders when developing their RCP in order to define their roles, responsibilities, and assistance capabilities. Refer to Appendix B for further information concerning response partner roles.

Once the appropriate response partner agencies have been identified, the utility should collaborate with these agencies to confirm roles and responsibilities, solidify lines of communication, and identify shared resources. The utility should confirm that other agencies agree with the identified points of contact and have the correct contact information, and that expected response actions are correct.

It is recommended that primary local partners should be engaged first, followed by the county, state, and federal level agencies. The reason for engaging local partner agencies first is two-fold. First, local agencies will likely be the ones directly contacted by the utility and will be the first responders to potential contamination incidents originating in their jurisdiction. Second, because they are first responders, they will be providing the initial response resources, including staffing and equipment. As a result, the utility should know what resources are at its disposal during the early stages of an incident. The next step should be developing new supporting materials and organizing meetings with expanded response partners, including county, state, and federal agencies. Refer to Section 3.0 of the *Water Security Initiative: Interim Guidance on Developing Consequence Management Plans for Drinking Water Utilities* (EPA, 2008) for further information on engaging response partners.

> **TIP**
>
> It is important to develop a working relationship with your local health department. Consumers may call the health department for information about health risks described in your public communications. If you coordinate in advance, you can help to ensure that, regardless of whom they call, the public hears consistent messages that will help them understand the risks and how to manage them (EPA, 2010).
> http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/upload/PNrevisedPNHandbookMarch2010.pdf

Finally, telephone trees should be established for all utility ICS members as well as response partner agencies. A telephone tree is an ordered list or diagram of staff and response partner phone numbers. To activate the telephone tree, the person at the top of the tree calls the next person(s) in the chain and the call progresses consecutively down the tree.

3.3 Step 3: Outline Public Information Actions

The next step in developing an RCP is to outline the public information actions that correspond with each of phase of a contamination incident. As indicated in the decision tree templates below (Figure 5 through Figure 8), the main public information actions for each incident phase include:

- Developing/issuing PNs
- Notifying employees
- Coordinating with response partner agencies
- Conducting public outreach
- Tracking the media

Tasks for each of these actions may vary during each incident phase and are further described in the decision trees below.

Important!
Decision trees are invaluable in the design phase of risk communication planning as well as during response. During design, decision trees aid in defining the comprehensive risk communication process from phase to phase as well as allowing for visual verification of the steps and information. They are especially useful in demonstrating and confirming the process

and coordination points with external agencies and partners. During an incident when time is a critical factor and events may seem chaotic, the decision trees may also aid the utility in navigating risk communication response actions.

Utilities can use Figure 5 through Figure 8 as a starting point for developing their unique decision trees and adding the specific actions that their PIO and communication support staff would need to implement. Utilities can modify the steps and the order of the steps in Figure 5 through Figure 8 to meet their specific needs.

Please note that the public information actions described in the decision trees may take place concurrently and therefore are not necessarily executed in the sequence presented. Rather, it is important for the PIO to initiate and complete these activities and response actions during each incident phase.

3.3.1 Possible Contamination

The first step after a possible contamination incident has been verified is for the PIO to activate the RCP and begin to develop PN and public outreach strategies. This includes assembling the appropriate communication support staff and ensuring that incident information is being communicated to the appropriate staff members (e.g., ICS personnel) including the utility's customer service center manager/supervisor. Notifying customer service center staff puts them on alert to receive incident related calls from the public.

> **TIP**
>
> During development of the possible phase portion of the RCP, it is critical that all response partners be identified (e.g., those who might need to be notified at this phase of a contamination incident).
>
> Even if an agency is not going to be immediately involved, they may wish to be notified early during the incident so they can prepare their resources for a response. They may also have access to information unknown to the utility.

In addition to notifying the customer service center, the PIO should prepare a statement for employees. Statements to employees should contain an advisory not to share information outside of the utility to reduce the potential for rumors. After a statement is prepared, the PIO should obtain approval from the utility's IC on the message content and the timing of its release. The approved statement should be released to employees as appropriate, and a schedule for releasing any anticipated subsequent statement to employees should be established.

During this phase, the PIO should also determine or confirm resources such as adequate space, equipment, and supplies, which should be secured for the duration of the incident. Finally, the PIO should begin to organize assignments for communication support staff, determine the current risk communication priorities (e.g., partner coordination, public outreach, media tracking), identify subject matter experts as needed, and determine the hours of operation for risk communications. Figure 5 provides an overview of the public information actions during the possible contamination phase.

Contamination is Possible

Initial Actions
- Activate RCP
- Begin to develop a PN/Public outreach strategy
- Determine/Assemble appropriate communication support staff
- Ensure incident information is communicated to appropriate staff members
- Determine resources needed (e.g., space, equipment)

Employee Notification
- Notify customer service center manager/supervisor
- Begin to prepare statements for employees – not to be shared outside the utility
- Obtain approval on message and timing of its release from the utility's Incident Commander (IC)
- Establish the schedule for the release of the next statement to employees

Response Partner Coordination
- Initiate communication with response partners (e.g. Fire, Police, Health Department, Primacy Agency), based on utility's CMP
- Begin to coordinate communication with response partners
- Coordinate venue for press briefings
- Establish a timeline for updating other response partner agencies

Public Notification (PN)
- Begin to develop a PN strategy with utility ICS communications staff
- Assemble PN templates
- Access the U.S. EPA PNi Writer
- Determine dissemination methods and possible locations
- Prepare draft statements

Public Outreach
- Discuss the need for public outreach with the IC
- Prepare written statements for the utility's website, customer service center, and the media
- Obtain approval from the IC prior to the release of statements
- Establish a schedule for updating statements on the utility's website, customer service center, and the media
- Develop / implement a communication plan to address implementation of operational responses – if needed. Consider the impacts of the utility's operational responses on customers and notify them as appropriate

Media Tracking
- Begin tracking information provided by traditional media outlets as well as social media outlets such as Facebook and Twitter
- Tracking should also include internal utility communications to ensure appropriate messages are being relayed
- Address false or misleading media or communications as soon as possible

Figure 5. PIO/Communication Staff Public Information Actions during the Possible Phase

3.3.2 Credible Contamination

Once the contamination incident has been verified as credible, the PIO should continue and expand the communication actions taken during the possible phase including employee notification, response partner agency coordination, public outreach, public notification, and media tracking. Figure 6 provides an overview of the public information actions during the credible contamination phase.

During the credible phase, public outreach communication should be based on the 'message mapping' technique developed for the RCP as outlined in Section 3.4. Effective communication with the public is important at this phase, and therefore customers need to have a clear understanding of what the level of risk posed by the incident is, as well as what steps they should take. The 'message map' ensures that key messages on the incident are delivered effectively and accurately. These message maps can be used in preparation for possible press conferences.

Contamination is Credible

Initial Actions
- ❑ Continue and expand communication actions taken during the possible phase

Employee Notification
- ❑ Continue to brief the utility's customer service center and employees
- ❑ Obtain approval on employee statement and timing of its release from the utility's IC
- ❑ Adjust the schedule for the release of the next statement to employees

Response Partner Agency Coordination
- ❑ Continue to coordinate with other response partner agencies
- ❑ It may be necessary to jointly schedule the first media briefing at this time and alert the media as to location and time

Public Notification (PN)
- ❑ Determine with the ICS communication staff and partner agencies (e.g., primacy agency, local public health) if PN is required
- ❑ If PN is required:
    - ❑ Confirm service area locations; and
    - ❑ Determine dissemination methods.
- ❑ Note: PNs could be disseminated during the credible phase based at the discretion of the IC

Public Outreach
- ❑ Update outreach statements for the utility's website, customer service center, and media based on incoming information from the utility investigation. If applicable, include information from:
    - ❑ Sampling and site characterization; and
    - ❑ Operational response actions.
- ❑ Obtain approval for outreach statement content from the IC
- ❑ Revise the plan for releasing the next statements to the website, customer service center, and media as needed
- ❑ Use message maps (as appropriate)

Media Tracking
- ❑ Continue tracking information reported on by the media and in other new communication outlets on the internet
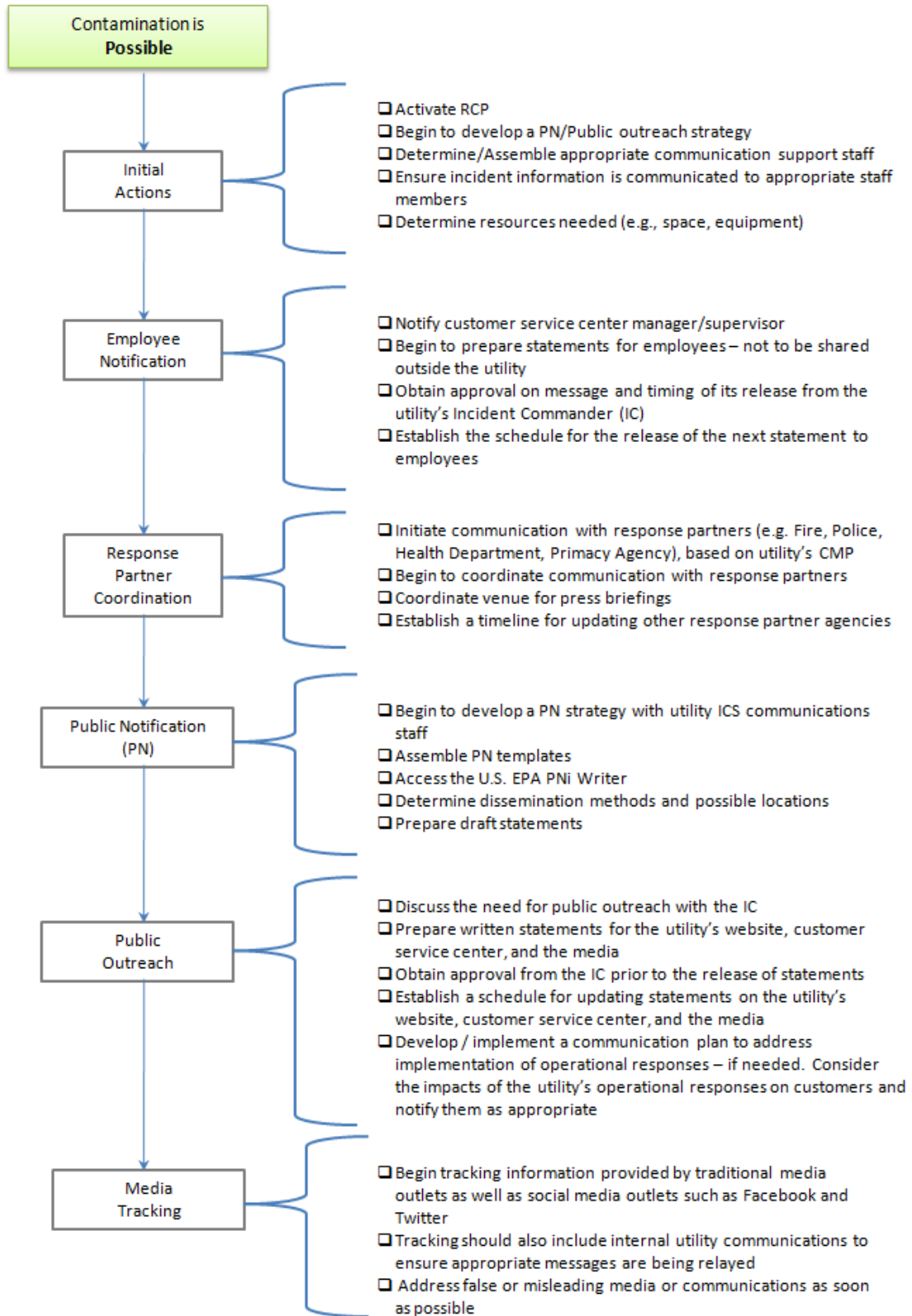- ❑ Respond to and correct inaccurate information disseminated though media channels

Figure 6. PIO/Communication Staff Public Information Actions during the Credible Phase

3.3.3 Confirmed Contamination

Once the contamination incident has been confirmed, the PIO should begin immediate dissemination of PNs, if not previously done during the credible phase. The PIO should finalize previously prepared PNs and inform the local government and the IC that PNs will be issued. The PIO should then disseminate the PNs or update the public on changes or termination of the notifications sent throughout the incident. If a contaminant is identified, it may be necessary to revise any PNs issued during the credible phase, when the contaminant was still unknown. Keep in mind that water consumers may be skeptical about revised PNs and may be hesitant to heed the revised instructions; therefore, additional information needs to be provided explaining why the notification is being revised. An information hotline telephone number should also be provided to water consumers for additional information and to answer questions (EPA, 2004).

Revised PNs should be communicated to water consumers and the public using appropriate communication delivery methods (e.g., mailings, bulletin boards, hand-to-hand delivery, telephone, newspapers, radio, television, internet, and fax). It may be effective for the water utility and/or appropriate agency to hold public meetings and public workshops to explain to consumers the reasons for a revised public drinking water notification. Descriptions of the different public meeting venues are provided in Appendix A.3.

Other steps immediately following confirmation should include continuing and expanding the communication actions taken during the possible and credible phases (e.g., employee notification, response partner coordination, public outreach, media tracking). This may also include communicating how customers may obtain alternate water supplies. Communication actions for remediation and recovery will follow later once the immediate threats to the public, property, and the environment have been mitigated. Figure 7 provides an overview of the public information actions during the confirmed contamination phase.
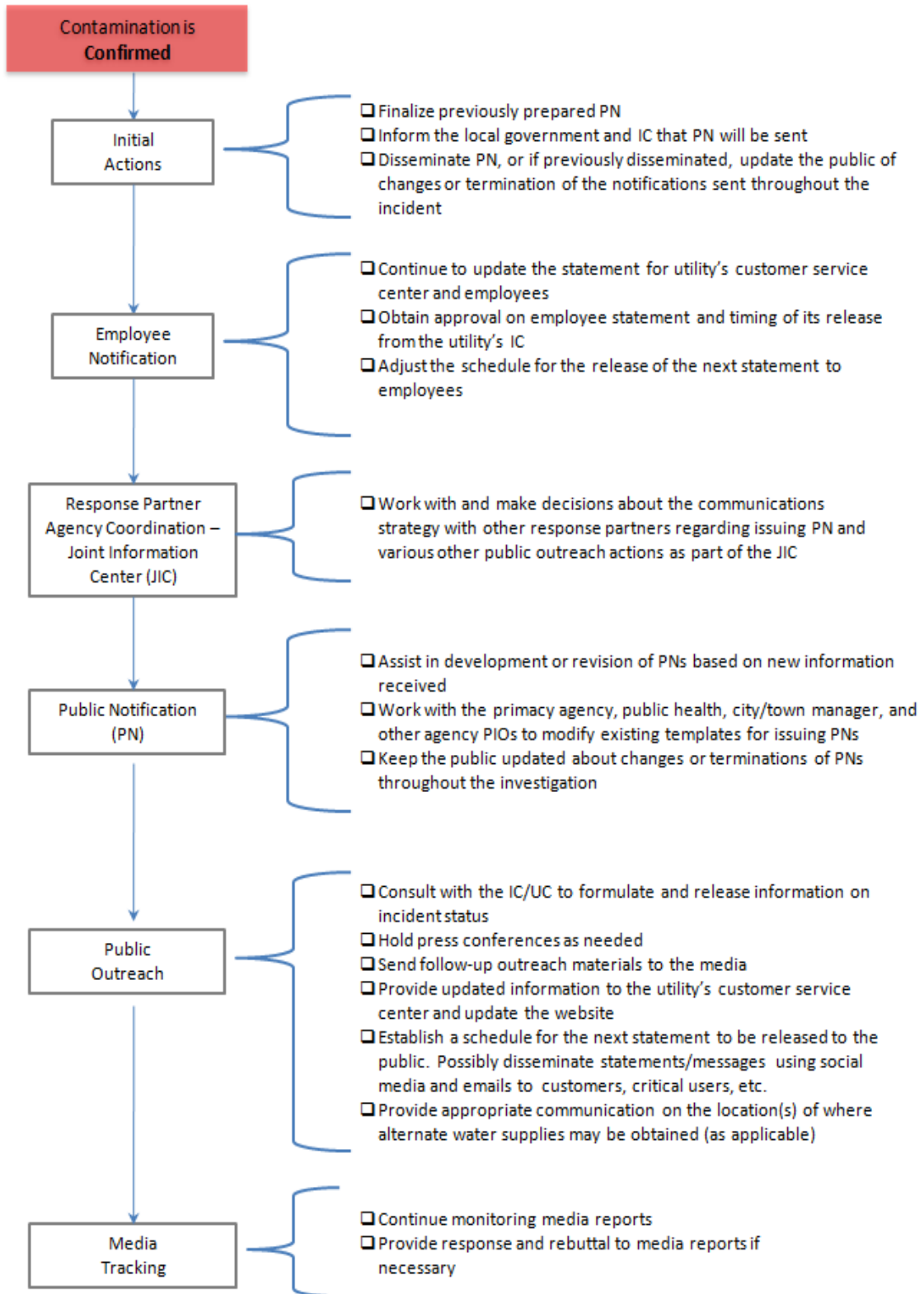
Figure 7. PIO/Communication Staff Public Information Actions during the Confirmed Phase

3.3.4 Confirmed Contamination/Remediation and Recovery

After the immediate threats to the public, property and the environment have been mitigated, a communication strategy for remediation and recovery can begin. Throughout remediation and recovery, the PIO should continue to disseminate updated information to the public as it becomes available concerning the contamination incident, including the nature of the contaminant and the rehabilitation of the water system. In consultation with the IC/UC and other agencies, information disseminated to the public and media should state the goal to return the system to normal operation as soon as possible. Figure 8 provides an overview of the public information actions during the confirmed/remediation and recovery phase.

After the incident is closed, the utility's communication staff should collect feedback on risk communication efforts and conduct a risk communication evaluation. Following the analysis, the PIO should share the results with the utility ICS staff and revise the RCP and associated policies and procedures based on lessons learned. Training should be conducted to institutionalize the changes. Additionally, the PIO should conduct public outreach activities to determine public perception and their information needs concerning the incident, and to provide any updated information. Refer to Appendix C.1 for a post-advisory community survey template that can be used to determine the effectiveness of communication efforts and to inform revisions to the RCP to improve future communication efforts.

Confirmed Contamination Phase– Remediation and Recovery

Initial Actions

- ❑ Continue to disseminate updated information to the public concerning the contamination incident, including the nature of the contaminant and the rehabilitation of the water system as it becomes available

Response Partner Agency Coordination – Joint Information Center (JIC)

- ❑ Coordinate ongoing remediation and recovery communications through the JIC and in concert with other PIOs. Provide the following information during different stages of remediation and recovery activities:
  - ❑ The extent of the investigation or study
  - ❑ System characterization outcomes
  - ❑ Final remediation goals
  - ❑ Remediation and recovery options being evaluated and final actions selected
  - ❑ Installation and operation activities
  - ❑ Continuing sampling and monitoring plans
  - ❑ Results from ongoing sampling

Public Outreach

- ❑ Inform customers of potential remediation activities affecting their homes and businesses (e.g., equipment, water heaters)
- ❑ Report the following to the public:
  - ❑ The schedules, resources, and clean up levels for contaminated water, system components, and affected environmental media.
  - ❑ Timelines for restoration of water supply for different uses such as fire-protection, basic sanitation, and drinking

Public Notification- Bringing the Water System Back On-line

- ❑ Report to the public after remediation objectives have been met
- ❑ Obtain the results of the utility's continuing post-remediation sampling and monitoring and report results to the public
- ❑ Continue to provide customers with information regarding the contamination incident, the nature of the contaminant, the effectiveness of the rehabilitation and recovery actions, and the ongoing sampling and monitoring activities through public meetings or workshops

Public Notification- Safe to Use/Safe to Drink notice

- ❑ Hold press conference and issue a "safe to use" and "safe to drink" notices after remediation and recovery actions have concluded
- ❑ Prior to the press conference:
  - ❑ Arrange for a predetermined space;
  - ❑ Assist crafting the message; and
  - ❑ Provide updates to the public as needed
- ❑ Notify key public officials and response partners, including the city or town manager of the decision to issue "safe to use" and "safe to drink" notices

End of Incident Return to Normal Operations/Evaluation

- ❑ Provide final notification to the public, lifting all restrictions, and close the incident with the IC/UC
- ❑ Obtain feedback on risk communication efforts and conduct a risk communications evaluation
- ❑ Share evaluation results with ICS staff and revise the RCP and associated policies based on the lessons learned
- ❑ Conduct survey to determine public perceptions and information needs regarding the incident
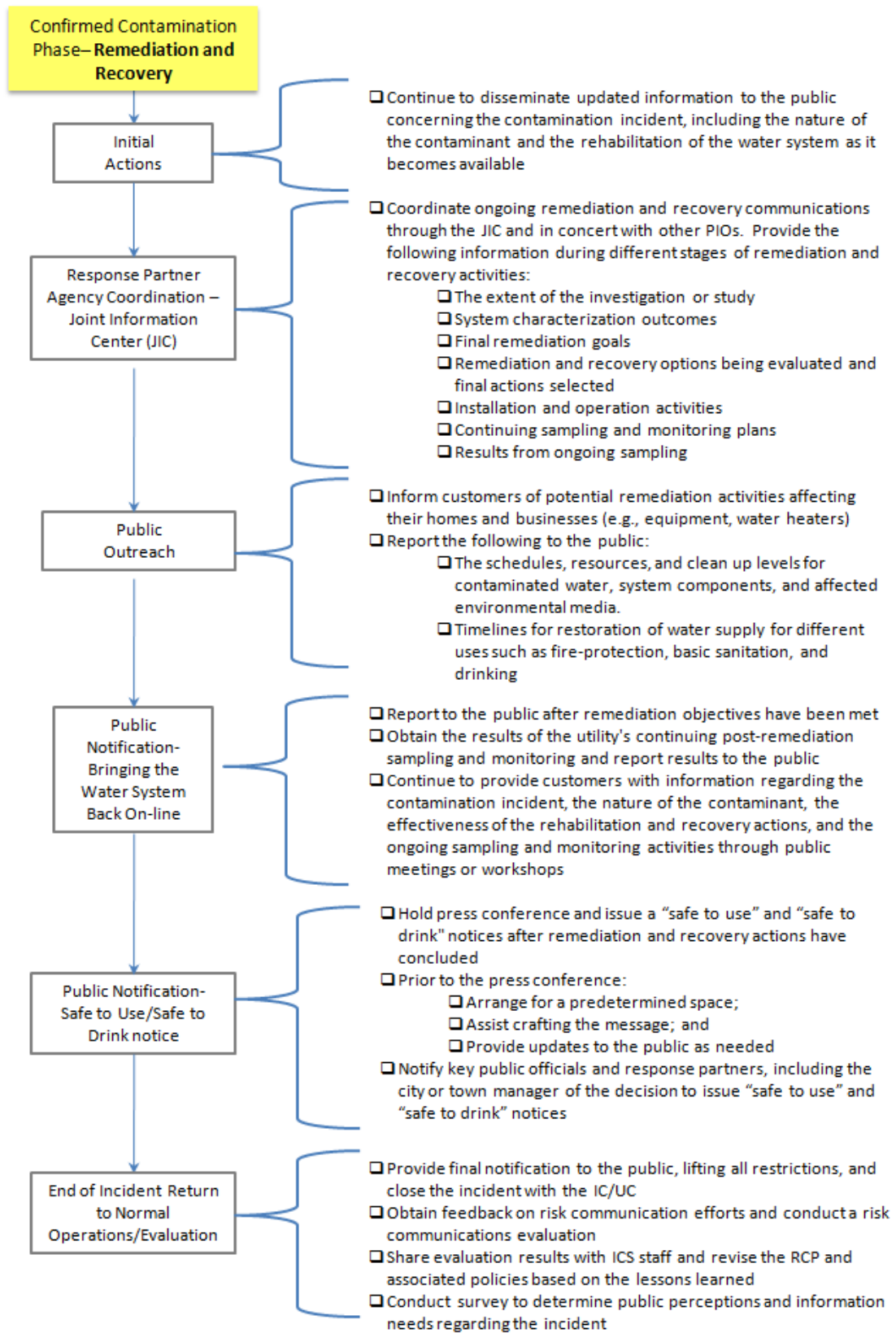
Figure 8. PIO/Communication Staff Public Information Actions during the Confirmed Phase/Remediation and Recovery

3.4 Step 4: Develop Key Messages and Templates for the Plan

The fourth step in developing an RCP is to develop, before an incident occurs, key messages and templates that can assist in RCP implementation. This includes, but is not limited to, developing key message maps or other pre-scripted messages for contamination incidents, event logs, public notification templates, and media tracking reports. These messages and templates are further described below.

3.4.1 Developing Key Messages and Message Mapping

Key messages tell the target audience what you want them to know about the incident in a few short, memorable phrases or sentences. Developing key messages provides focus and consistency for all utility communications regarding an incident. Utilities should develop basic key messages for several types of contamination incidents as part of the RCP, and then fine tune the messages when an incident occurs.

One method of developing key messages is message mapping. Message mapping is a process by which the utility can quickly and concisely deliver the most pertinent information about an incident. Message maps are sets of organized statements or messages that address likely questions and concerns in a crisis. Each map identifies up to three unique messages that address a specific issue, and each issue may be addressed by several layered message maps.

Message maps were developed as a specialized tool for communicating effectively in high-stress, high-concern, or emotionally charged situations (EPA, 2007). A message map provides multiple benefits. It is a useful reference for spokespersons who respond to questions on topics requiring timeliness and accuracy. Multiple spokespersons can work from the same message map to ensure the rapid dissemination of consistent core messages across multiple communication outlets. Message maps also serve as a unifying framework for disseminating information on various issues and minimize the chance of the speaker saying something inappropriate or omitting something that should have been said. A printed message map allows spokespersons to check off the talking points as they are covered. This helps to prevent omissions of key facts or misstatements that could provoke misunderstandings, controversy, or confusion.

> **TIP**
>
> In 2011, EPA conducted an investigation to compare the public's and drinking water professionals' assessments of critical information needs arising from the intentional contamination of a municipal water supply. The 2012 report, *Need to Know: Anticipating the Public's Questions during a Water Emergency*, provides the results of interviews with utility managers, communications staff, and focus groups comprised of members of the public. The conclusions identified can help a utility develop a public engagement strategy in advance of a water emergency.
> http://cfpub.epa.gov/si/si_public_record_report.cfm?address=nhsrc/&dirEntryId=240476

Further information on message mapping can be found in EPA's 2007 *Effective Risk and Crisis Communication during Water Security Emergencies Report*[4]. This report provides detailed guidance on message mapping, and was developed through EPA message mapping workshops. It also includes sample messages for the following scenarios: biological contamination, physical

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[4] EPA's *Effective Risk and Crisis Communication during Water Security Emergencies Report* can be found at: http://oaspub.epa.gov/eims/eimscomm.getfile?p_download_id=461264.

attack, receipt of a credible threat, power loss, pesticide contamination, and chemical warfare agent contamination.

3.4.2 Event Log

Event logs are important to develop in order to capture basic information about actions or events that occur during a contamination incident. The log may include information such as date, time, action/event description, and agency and people involved. The information in the log can be useful in developing risk communication materials as well as keeping a record of events and corresponding communication actions. An example event log template is provided in Appendix C.2.

3.4.3 Public Notice Templates

Public notice templates should be included in the RCP to save time during a contamination incident. Refer to 40 CFR 141, Subpart Q and EPA's Revised Public Notification Handbook for regulatory guidelines, additional information, and templates.

Note: For regulated substances, utilities should follow Safe Drinking Water Act mandatory language requirements and add required information to notices.

> **TIP**
>
> Utility personnel can access EPA's free web-based PNiWriter, to get help with the PN requirements of the Safe Drinking Water Act. The PNiWriter provides a fast, user-friendly format using templates to help create public notices that meet all federal requirements.
>
> http://www.pniwriter.com

3.4.4 Media Tracking Report

A media tracking report is another useful tool utilities should develop as part of a RCP. Similar to the event log, this report is a table that allows utilities to enter basic information about media activities for a specific contamination incident. The log may include information such as date, time, media source, report's name, web site, and description. The information in the log can be useful in monitoring external communications, and identifying misinformation surrounding the incident. See Appendix C.3 and Appendix C.4 for media tracking report and media phone call log templates.

Appendix D of this document contains other tools and resources that may be helpful as you develop your RCP.

3.5 Step 5: Conduct Training & Exercises

Success in implementing the concepts, guidance and procedures contained in a utility-specific RCP comes from execution. The ability to effectively execute a RCP comes from training personnel responsible for its execution. The fifth and final step, the training and exercise process, allows utility staff to face tasks and situations normally outside of their daily operations to enable them to meet the challenges associated with an actual contamination incident. In addition, effective training and exercise programs are useful for integrating communication procedures with those of external partners. In the end, training and exercises allow the utility to learn from

its mistakes, thereby recognizing potential opportunities for change and enhancements in the plans and procedures already in place.

3.5.1 Training

To ensure an effective risk communication program, training should be conducted to familiarize utility staff and response partners with the RCP and their corresponding roles. Now that roles and responsibilities have been more clearly defined in the RCP, training is critical to get the staff and partners "up to speed." Training should include information concerning how the RCP is organized, the corresponding steps associated with contamination incident phases, and identifying roles and responsibilities. Additionally, training activities associated with specific RCP activities (e.g., message mapping, public notifications) may need to be conducted. Training events should also stress integration of utility personnel with external partners to establish a consistent, shared understanding of communication roles and capabilities.

3.5.2 Exercises

The exercise strategy recommended for utility RCPs is described by the Department of Homeland Security's Homeland Security Exercise and Evaluation Program (HSEEP)[5]. HSEEP is a capabilities and performance-based exercise program that provides a standardized methodology and terminology for exercise design, development, conduct, evaluation, and improvement planning. HSEEP describes "Discussion-Based" exercises, which include tabletops, seminars, and workshops to introduce and teach new concepts, followed by "Operations-Based" exercises including drills, functional exercises and full-scale exercises to test and evaluate program effectiveness. It may be challenging for most utilities to implement an entire HSEEP-based program, but by integrating efforts with local partners, it may be achievable. Utilities will also find it advantageous to integrate exercising the RCP with those exercises conducted as a part of consequence management (EPA, 2008). By conducting exercises, the utility can identify and correct any deficiencies or weaknesses in the RCP before a real incident occurs.

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[5] Refer to the following website for additional information on the HSEEP:
https://hseep.dhs.gov/pages/1001_HSEEP7.aspx

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Appendix A: Communication Resources and Information

One of the most important functions of the PIO is communicating with the media either directly or in helping to prepare for press interactions by utility officials and others. This is especially critical during crisis situations. The following appendix provides an example matrix documenting utility communication plans, resources, and capabilities, including information on appropriate channels and venues to use for disseminating messages.

A.1 Public Notification Channel Comparison

Channel	Pros	Cons
Hotline with Recorded Message	• Universal access • Low cost • Fast • Real time/instant updates • Does not require dedicated staff	• Power outage may affect accessibility • Requires customer action
Contact Center	• Can handle large volume of calls • Universal access • Fast • Real time/instant updates	• Power outage may affect accessibility • Requires customer action • Requires trained, dedicated staff
Web Site	• Fast • Real time/instant updates • Reach wide audience • Doesn't require dedicated staff	• Web access required/not universal access • Power outage may affect accessibility
Social Media (e.g., Twitter, Facebook)	• Fast • Real time/instant updates • Reach wide audience • Doesn't require dedicated staff • Low cost	• Web access required/not universal access • Power outage may affect accessibility • Quality control of information not guaranteed • Required customer action
Door-to-Door Notification (door knock and/or door hangers)	• Guaranteed notification • Does not require customer action • Targets specific types of neighborhoods or sensitive populations	• Slow • Expensive • Requires dedicated staff
Police Drive-around (using loudspeakers or door-to-door notification)	• Targets specific neighborhoods • Door-to-door used for sensitive populations • Covers multiple jurisdictions	• Possibility for public panic
Churches/Church Parking Lots	• Targets specific types of neighborhoods • Interactive with the public	• Slow • Requires dedicated staff • Best for after-action communication • Generally works only on weekends
Press Releases/Press Conferences/Press Calls and Public Service Announcements (Radio, TV, Newspaper)	• Fast (Radio/TV) • Universal access • No customer action required • Low cost • Real time/instant updates	• Slow (Newspaper) • Power outage may affect access • Possibility for public panic • Only reaches those tuned in (therefore marginal value during late-night, early-morning hours)

A.2 Example Matrix Documenting Utility Communication Plans, Resources, and Capabilities

Type of Plan and Comments	Does the plan establish communication roles and responsibilities?	Does the plan identify spokespeople?	Does the plan identify internal and external communication linkages?	Does the plan contain procedures for communicating with the public and the media?	Does the plan contain ICS and response partner telephone trees?	Notes
Emergency Response Plan	✔	✔		✔		This plan covers all-hazards, but focuses on natural disasters. The plan does identify spokesperson positions and has detailed procedures for communicating with the media.
Consequence Management Plan	✔	✔	✔	✔	✔	The plan contains detailed information on communication roles and responsibilities during a water contamination incident. Very applicable to the RCP, but telephone trees can get out of date.
Customer Complaint Procedures	✔		✔	✔		Detailed procedures for handling customer complaint calls, but no communication linkages outside of the utility.
Public Outreach Plan	✔	✔		✔	✔	This plan has some communication procedures, but few applications to RCP except for contact lists.

Communication Resources	Availability	Needed for RCP?	Number	Comments
2-way Radios	24/7	No	18	Located with utility operations organization and primarily used for field investigations. Not crucial to RCP but could serve as information conduit to response partners during a contamination incident.
Communication Briefing Locations	Large conference room: 24/7 Employee lunch room: 24/7	Yes	Two facilities with immediate availability	Lunchroom capacity 22 people, large conference room capacity 25. Facilities may be strained for Joint Information Center or prolonged operations. Should investigate larger alternative facilities.
Emergency Communication Phone Lines	2 lines 24/7 10 lines with 4 hour notice	Yes	2 on a permanent basis 10 additional with notice	The utility serves as alternative emergency center for the municipality, and can activate 10 emergency lines.
Emergency Communication Website	Utility maintains internal website during normal working hours	Perhaps	One internal website	Current LAN-based website only operated during normal working hours, and is fire-walled against external access. If website access integrated into RCP, should reconfigure for wider availability.
Spokesperson Media Training	Internal-initial with assignment and annual refresher	Yes	4 of 6 identified spokespersons completed initial. 3 current with refreshers	Good course for communication spokespersons, but personnel changes impede keeping current. Talk to Training about expanding this.
Public Response Roles and Procedures (ICS)	Commercial-on assignment to ICS	Yes	Course has been conducted three times since required, to a total of 22 primary and alternate ICS members.	All current ICS members and alternates have been trained, but there is no requirement for refresher courses, nor provisions for training new members of the ICS.
Exercise(s)	Local	Yes		Participated in small discussion-based TTXs 2 years ago. Once the CMP is completed, will have to set up operations-based exercises (e.g., full-scale exercise) to test its implementation. Talk to City Manager about city exercises.

A.3 Comparison of Public Information Venues[6]

Venue	Overview	Tips
Public Meetings	The public meeting is a public forum that is fairly structured and formal in nature, and open to the general public (i.e., drinking water customers). The public meeting provides a forum for water consumers and others to interact with the officials from the water utility, lead agency, and other participants in the remedial action and to voice their concerns and questions. The purpose of the public meeting is to present information to the audience and to receive information back from them. Presenters should include the water utility and/or primacy agency as well as other officials. Public meetings should be effective communication vehicles to disseminate information on the alternate water supply, identify and discuss the remediation and recovery option that is being implemented, and discuss the time estimated for the water system to resume normal operations.	The public meeting should be held in a location that is convenient and easily accessible to the majority of water consumers, including any disabled residents. The location should be capable of accommodating the anticipated crowd, handle any lighting, ventilation and electrical needs, and have adequate, convenient, well-lighted parking. Providing media access before the meeting can help streamline interactions with the media and may give the water utility and appropriate agencies insight into issues that may not have been considered in preparing for the meeting.
Public Presentations	A public presentation is an organized oral communication to an audience. Presentations can be enhanced with visual aids and question-answer sessions. This vehicle should be used to make a formal announcement, such as a revised public water use notification, or to keep the water consumers and the community up-to-date regarding the progress of remediation efforts. Presentations also can be used to prepare the water consumers and the community prior to significant events or decisions, such as the implementation of remediation and recovery actions or selection of an alternate water supply.	As with meetings, presentations need to be promoted ahead of time. Presentations should be advertised through the media and through mailings. Presentations should be scheduled at convenient times and locations. A press conference should be held prior to the presentation if possible. Presentations are most effective when they are planned around major events.
Public Workshops	Workshops are formal, participatory seminars used to educate the participants and develop or improve the involvement of water consumers, local officials, and other interested parties. Technical experts may be invited to offer an inside perspective and to increase the effectiveness of the workshop. Workshops may be a very powerful tool for formally educating small groups of citizens and water consumers on: 1) provisions for alternate water supply; 2) public notices regarding water use restrictions; 3) decontamination and treatment options; and 4) remediation and recovery activities. The educational, public involvement and empowerment values of workshops make them a key component of the community outreach and involvement process during rehabilitation and return to normal operations following a contamination incident.	As with meetings and presentations, workshops need to be promoted ahead of time and should be advertised through the media and mailings. Workshops should be scheduled at convenient times and locations. A good workshop will include citizen participation and provide an excellent forum for concrete planning of next steps and action items.

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[6] Adapted from, Response Protocol Toolbox Planning for and Responding to Drinking Water Contamination Threats and Incidents, Module 6: Remediation and Recovery Guide (EPA, 2004)

Appendix B: Communication Roles and Responsibilities

This appendix provides a description of recommended roles and responsibilities for risk communication.

The table below contains information on local, state, regional and federal response partners that may play a role as part of risk communication. It is important to note that each utility's local and state policies and procedures may affect the roles described below. These variations underline the importance of talking with and including local first responders, the local emergency planning committee, and public health and primacy agencies in utility emergency response planning efforts.

Potential Response Partners	Roles
Drinking water and wastewater primacy agencies	Primacy agencies can be public health agencies as well as separate state or local environmental agencies, such as state or regional water quality boards. If contamination does occur, there may be regulatory ramifications related to public notification. May also provide resources to a Joint Information Center, if the incident escalates.
Local health department	Provide support including consultation and public notification. Serve as conduit to state and federal health departments and agencies. May also provide resources to a Joint Information Center, if the incident escalates.
Local law enforcement	May serve as conduit to state and national law enforcement and intelligence agencies.
Local civil government	Should an incident occur, the elected officials of different jurisdictions should be appropriately informed of the state of the situation so that they can effectively communicate with their constituencies. May also provide resources to a Joint Information Center, if the incident escalates.
Local emergency planning committees and emergency management agencies	Primarily support risk communication activities as a conduit to other response partner agencies at the state and federal level.
Local fire, EMS, and HazMat	Can notify affected neighborhoods and can distribute alternate water supplies. May also provide resources to a Joint Information Center, if the incident escalates.
Local wastewater utility	Should be consulted in the development and implementation of RCPs due to the potential impact of contamination on wastewater operations.
Neighboring utilities (water and/or wastewater)	Should be informed and engaged once contamination has been deemed possible to assist in coordination of resources and communication. May provide support in the event of a contamination incident through mutual aid and assistance.
Media	Local media organizations may serve as a valuable resource in communicating messages to the public in the event a contamination incident occurs.

Risk Communication Plan Guidance

Potential Response Partners	Roles
State government	May be informed and engaged once contamination has been confirmed to assist in coordination of resources and communication. May also provide resources to a Joint Information Center, if the incident escalates.
State health department	Can provide preparedness actions by alerting health care providers of potential contamination incidents and appropriate treatment methods. May also provide resources to a Joint Information Center, if the incident escalates.
State emergency management and homeland security agencies	Provide support if a contamination incident is confirmed. May provide resources to a Joint Information Center, if the incident escalates.
State law enforcement	Can notify affected neighborhoods and provide support if a contamination incident is confirmed. Should be informed if evacuations or other transportation-related response operations are required.
Department of Homeland Security	May be able to support the determination of, and response to an intentional incident, through the National Response Framework.
EPA regional offices and/or laboratories	May assist in coordination of Federal resources (including EPA response resources) and provide technical assistance on public notification regulations.
EPA On-Scene Coordinators	Provide direction, guidance and support during response activities.
Federal Bureau of Investigation	May assume control of the law enforcement investigation in some instances. May also provide resources to a Joint Information Center, if the incident escalates.
Centers for Disease Control and Prevention	Provide oversight to the Laboratory Response Network, a network of public health laboratories with the ability to analyze for select agents based on established analytical protocols. Provide technical consultation during credibility determination and other phases of consequence management.
National Response Center	NRC is the 24/7 response center which is manned by the U.S. Coast Guard. It is where releases or spills should be reported. NRC can notify other agencies of the incident and can assist with technical support in response to the situation.

Appendix C: Communication Templates

The communication templates included in this appendix are provided as examples to be used when developing a RCP. ***Each utility should modify the templates in this appendix to meet its own specific needs***.

C.1 Post-Advisory Community Survey Template[7]

Conducting a survey after an advisory will provide crucial information on the effectiveness of the messages and the communication preferences of a water system's audiences.   This survey can be used for phone, mail, or online formats. Questions provided are suggestions and should be adapted to suit the advisory and community. Questions in this example can be placed in regulated water system surveys or in public health surveys.

[Letter head or Logo]

[Water Utility] needs your help to better serve you and protect the community's health. We want to improve public information and advice. Specifically, **[Water Utility]** wants to understand how people receive information and advice about the drinking water advisory on **[date].** Your participation will help **[Water Utility]** improve communication in the future.

The survey below will take about **[xx]** minutes to complete. All information collected is confidential. We cannot identify who does or does not participate, or link answers to any one person.

We will use the results of this survey to **[report date, how will you use/publish the data].**

[Directions on how to submit the survey: Consider using e-mail and an online survey tool to conduct the survey to make it easier to tabulate results. Otherwise, include a self-addressed stamped envelope or postage paid form to improve response rates.]

For more information, please contact:
[Utility contact name]
[Utility contact phone]
Utility website

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[7] Adapted from: Centers for Disease Control and Prevention (CDC), *Drinking Water Advisory Communication Toolbox,* available at: http://www.cdc.gov/healthywater/pdf/emergency/drinking-water-advisory-communication-toolbox.pdf

1. Which type of water do you prefer to drink? Please rank your preferences using a scale of 1-4, with 1 as the most preferred type and 4 as the least preferred.

__Water straight from the tap

__Bottled water

__Filtered tap water

__Other (please specify) _____

2. How many 8-ounce glasses (the size of a soft drink can) of water do you drink on a normal day?

❑   **0**   ❑   **4-6**
❑   **1-3**   ❑   **7+**

On [date], [Water Utility] **issued a** [type] **advisory because** [reason]

3. Did you know about the [advisory] **issued on** [date]

❑   Yes
❑   No (Go to Question 14)

3a. What advice did you get during the advisory? Check all that apply.

❑   Do not use tap water   ❑   Do not drink tap water
❑   Boil all tap water   ❑   Was told the water was safe
❑   Not sure what the advice   ❑   I did not get any advice (Go to
         was   Question 4)

3b. Where did you get the information? Check all that apply.

❑   Family member or friend   ❑   Television
❑   [Water Utility]   ❑   Coworker
❑   [Local newspaper]   ❑   Automated Message
❑   Local Radio   ❑   Blog or other internet source
❑   [Local health department]   ❑   Door hanger
❑   Website. Please specify: ❑   Other. Please Specify:

_____   _____

4. During this time, I used water straight from the tap to…Check all that apply.

❑   Flush the toilet   ❑   Water plants
❑   Brush teeth   ❑   Prepare and cook food
❑   Make baby formula   ❑   Shower or bath
❑   Wash hands   ❑   Give pets a drink
❑   Make coffee or tea   ❑   Drink

5. During the [advisory], did you boil the tap water before you used it?

❑   Yes   ❑   No (Go to Q6)

5a. If yes, I used boiled water to...Check all that apply.

❑	Flush the toilet	❑	Water plants
❑	Brush teeth	❑	Prepare and cook food
❑	Make baby formula	❑	Give pets a drink
❑	Wash hands	❑	Drink
		❑	Make coffee or tea

6. Did you hear the [advisory] end on [date]?

❑   Yes   ❑   No

6a. If yes, where did you hear or see the end of the [advisory]? Check all that apply.

❑	Family member or friend	❑	Television
❑	[Water Utility]	❑	Coworker
❑	[Local newspaper]	❑	Automated Message
❑	Local Radio	❑	Blog or other internet source
❑	[Local health department]	❑	Door hanger
❑	Website. Please specify:	❑	Other. Please Specify:

_____   _____

6b. When you heard the advisory ended, did you resume regular water use?

❑   Yes   ❑   No

C.2 Event Log Template

1. Incident Name:		2. Operational Period: Date From: Date To: Time From: Time To:
3. Name:	4. ICS Position:	5. Home Agency (and Unit):

6. Resources Assigned:		
Name	ICS Position	Home Agency (and Unit)

7. Activity Log:	
Date/Time	Notable Activities

8. Prepared by: Name: Position/Title: Signature:	
ICS 214, Page 1	Date/Time:

Risk Communication Plan Guidance

1. Incident Name:	2. Operational Period: Date From: Time From:	Date To: Time To:

7. Activity Log (continuation)**:**

Date/Time	Notable Activities

8. Prepared by: Name:	Position/Title:	Signature:

ICS 214, Page 2	Date/Time:

C.3 Media Tracking Report

EVENT: _____

DATE: _____

Time	Media Source	Reporter's Name	Website	Concerns/Descriptions

C.4 Example Media Log For Phone Calls

Date	Time	Name of Caller	Media Outlet	Phone Number	Question Asked	Transferred (Y/N) – Transferred To	Callback Needed (Y/N)

Appendix D: Tools and Resources

The following is a list of references and Internet links that may be useful in preparing a RCP.

Drinking Water Contamination Risk Communication Publications

- **Centers for Disease Control and Prevention (CDC)**: *CDC Drinking Water Advisory Communication Toolbox.* http://www.cdc.gov/healthywater/pdf/emergency/drinking-water-advisory-communication-toolbox.pdf

- **Critical Infrastructure Partnership Advisory Council (CIPAC):** *All-Hazard Consequence Management Planning for the Water Sector, Preparedness, Emergency Response, and Recovery.* November 2009. http://www.wef.org/uploadedFiles/Access_Water_Knowledge/Water_Security/Water_Security_PDFs/All-HazardCMPNovember2009FINAL.pdf

- **U.S. Environmental Protection Agency (EPA)**: *Planning for an Emergency Drinking Water Supply.* June 2011. (EPA 600/R-11/054) http://cfpub.epa.gov/si/si_public_file_download.cfm?p_download_id=502174

- **EPA:** *Water Security Initiative: Interim Guidance on Developing Consequence Management Plans for Drinking Water Utilities.* October 2008. (EPA 817-R-08-001) http://www.epa.gov/safewater/watersecurity/pubs/guide_interim_cmp_wsi.pdf

- **EPA:** *Response Protocol Toolbox: Planning for and Responding to Drinking Water Contamination Threats and Incidents. Module 5: Public Health Response Guide.* Interim Final - April 2004. (EPA 817-D-03-005) http://www.epa.gov/safewater/watersecurity/pubs/guide_response_module5.pdf

- **EPA:** *Response Protocol Toolbox: Planning for and Responding to Drinking Water Contamination Threats and Incidents. Module 6: Remediation and Recovery Guide.* Interim Final- April 2004. (EPA 817-D-03-006) http://www.epa.gov/safewater/watersecurity/pubs/guide_response_module6.pdf

- **EPA:** *A Water Security Handbook: Planning for and Responding to Drinking Water Contamination Threats and Incidents.* April 2006. (EPA 817-B-06-001) http://www.epa.gov/watersecurity/pubs/water_security_handbook_rptb.pdf

- **Water Research Foundation (WRF):** *Contaminant Risk Management Communication Strategy and Tools.* 2010. http://waterrf.org/PublicReportLibrary/4001.pdf

Message Mapping Publications

- **EPA:** *Effective Risk and Crisis Communication during Water Security Emergencies Report.* March 2007. (EPA/600/R-07/027) http://cfpub.epa.gov/si/si_public_file_download.cfm?p_download_id=461264

- **EPA:** *Need to Know: Anticipating the Public's Questions during a Water Emergency.* April 2012. (EPA/600/R-12/020) http://cfpub.epa.gov/si/si_public_record_report.cfm?address=nhsrc/&dirEntryId=240476

- **EPA:** *Risk Communication in Action: The Tools of Message Mapping*. August 2007. (EPA/625/R-06/012)   http://nepis.epa.gov/Adobe/PDF/60000IOS.pdf

- **EPA:** *Message Mapping Video.* http://www.epa.gov/nhsrc/news/news040207.html

National Incident Management System (NIMS)

- **U.S. Federal Emergency Management Agency (FEMA):** For an overview of Public Information within NIMS, refer to the following webpage: http://www.fema.gov/national-incident-management-system

- **FEMA**: *FEMA National Incident Management System*. December 2008. http://www.fema.gov/pdf/emergency/nims/NIMS_core.pdf

- **FEMA**: *NIMS Basic Guidance for Public Information Officers.* November 2007. (FEMA 517)   http://www.fema.gov/library/viewRecord.do?id=3095

Online Tools

- **EPA:** *PNiWriter.* http://www.pniwriter.com
  - EPA released this web-based program to help public water systems comply with the public notification requirements of the Safe Drinking Water Act. The PNiWriter provides a fast, user-friendly format for creating public notices that meet all federal requirements. After users log in, they will see a series of questions about the violation or situation requiring public notice. After answering questions and filling in blanks, they will be able to print or download the public notice, an instruction sheet, and a public notice certification. The program is free and users may also access the program from the EPA Web site at: http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/compliancehelp.cfm.

Public Notification Documents and Guidance

- **EPA:** *Code of Federal Regulations, Public Notification of Drinking Water Violations.* 40 CFR Part 141, Subpart Q (141.201-141.211). e-CFR Data is current as of March 13, 2013. http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=4e84b641a43bc9b1106f357289cb063c&rgn=div6&view=text&node=40:24.0.1.1.3.16&idno=40

- **EPA:** *Revised Public Notification Handbook*. March 2010. (EPA 816-R-09-013) http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/upload/PNrevisedPNHandbookMarch2010.pdf.

- This guide was developed for community water systems and non-transient non-community water systems. It provides instructions and includes templates that can be used for various types of public notices.

- **EPA:** *Public Notification Handbook for Transient Non-community Water Systems.* March 2010. (EPA 816-R-09-007) http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/upload/publicnotification handbookfortransientnoncommunitywatersystemsmarch2010.pdf
  - This guide was developed for transient non-community water systems. It provides instructions and includes templates that can be used for various types of public notices.

Publications on Risk Communication for Non-Drinking Water Topics

- **EPA:** *Seven Cardinal Rules of Risk Communication: Pamphlet Drafted by Dr. Vincent T. Covello and Frederick H. Allen.* April 1988. (OPA-87-020) http://www.epa.gov/CARE/library/7_cardinal_rules.pdf

- **Agency for Toxic Substances and Disease Registry**: *Tools and Techniques for Effective Health Risk Communication.* 2001. http://www.bvsde.paho.org/tutorial6/fulltext/tools.pdf

- **CDC**: *Crisis and Emergency Risk Communication.* 2012 Edition. http://emergency.cdc.gov/cerc/pdf/CERC_2012edition.pdf

- **U.S. Department of Defense (DOD):** *Risk Communication Plan for Health Care Facilities for Smallpox Vaccinations - Template Guide.* http://www.smallpox.army.mil/documents/526RCStrategy.pdf

- **U.S. Department of Health and Human Services (HHS)**: *HHS Pandemic Influenza Plan.* November 2005. http://www.flu.gov/planning-preparedness/federal/hhspandemicinfluenzaplan.pdf
  - Refer to *Supplement 10, Public Health Communications*

- **National Mining Association**: *Media and Community Crisis Communications Planning Template.* http://www.nma.org/index.php/safety-publications/safety-crisis-communication-template

- **Nuclear Regulatory Commission (NRC)**: *Effective Risk Communication.* January 2004. (NUREG/BR-0308) http://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0308/br0308.pdf

- **University of Florida**: *Risk and Crisis Communication: When Things Go Wrong.* http://edis.ifas.ufl.edu/wc093

- **World Health Organization (WHO)**: *Effective Media Communication during Public Health Emergencies: WHO Handbook and Field Guide.* July 2005. (WHO/CDS/2005.31) http://www.who.int/csr/resources/publications/WHO_CDS_2005_31/en/

    o This handbook describes a seven-step process to assist public health officials and others to communicate effectively through the media during emergencies.

State Risk Communication Plans and Documents

- **California Department of Health Services**: *Crisis and Emergency Risk Communication Tool Kit, A Workbook For Use By Local Community Water Systems in California.* March 2006.
  http://www.cdph.ca.gov/certlic/drinkingwater/Documents/Security/CERCtoolkit.pdf

- **Connecticut Department of Public Health**: *Crisis and Emergency Risk Communication, Risk Communication Resources.*
  http://www.ct.gov/dph/cwp/view.asp?a=3115&q=431406

- **Delaware Department of Health and Social Services**: *Crisis and Risk Communication Plan.* July 2008. (35-05-20/08/05/14b)
  http://dhss.delaware.gov/dhss/dph/php/files/crcplan.pdf

- **Kansas Department of Health and Environment**: *Risk Communication Standard Operating Guides.* http://www.kdheks.gov/cphp/operating_guides.htm

- **Michigan Office of Public Health Preparedness**: *Michigan Crisis and Emergency Risk Communication, A Guide for Developing Crisis Communication Plans.* October 2003.
  www.michigan.gov/documents/Michigan_Crisis_Emergency_and_Risk_Communication3_82364_7.doc

- **New Mexico Department of Health**: *The New Mexico Pandemic Influenza Operation Plan.* July 2008.
  http://nmhealth.org/FLU/docs/NM_PAN_FLU_OPS_PLAN_072008.pdf

- **Texas Department of Health Services**: *Crisis and Emergency Risk Communication Tools.* http://www.dshs.state.tx.us/riskcomm/tools.shtm

- **Washington Department of Health**: *Emergency Communications Toolkit*.
  http://www.doh.wa.gov/PublicHealthandHealthcareProviders/EmergencyPreparedness/EmergencyCommunicationsToolkit.aspx