

# IOWARN Operational Plan

**Date: 6/1/2012**  
**Prepared by:**  
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## Table of Contents

<b>Record of Changes Form</b> .....	<b>ii</b>
<b>List of Tables and Figures</b> .....	<b>iii</b>
<b>List of Acronyms</b> .....	<b>iv</b>
<b>List of Definitions from the IOWARN Agreement</b> .....	<b>vi</b>
<b>Introduction</b> .....	<b>1</b>
<b>Purpose of the IOWARN Operational Plan</b> .....	<b>2</b>
<b>Organization of the IOWARN Operational Plan</b> .....	<b>2</b>
<b>Assumptions</b> .....	<b>3</b>
<b>SECTION 1: Pre-Emergency Governance Structure</b> .....	<b>5</b>
<b>SECTION 2: Training, Exercises, and Updates</b> .....	<b>10</b>
Training .....	10
Exercises .....	10
Updating IOWARN Documents.....	11
<b>SECTION 3: Concept of Operations</b> .....	<b>12</b>
IOWARN Relation to Local, State, and Federal Response .....	12
Response Considerations by Role .....	14
<b>SECTION 4: IOWARN Activation</b> .....	<b>19</b>
<b>SECTION 5: Response Considerations</b> .....	<b>22</b>
<b>SECTION 6: IOWARN Response Team Coordination</b> .....	<b>24</b>
Response Team Member Roles and Responsibilities .....	24
<b>SECTION 7: IOWARN Communication Tools</b> .....	<b>26</b>
<b>SECTION 8: After Action Report and Improvement Plan</b> .....	<b>27</b>
<b>SECTION 9: Attachments</b> .....	<b>29</b>
Attachment A: Requesting Utility Checklist .....	30
Attachment B: IOWARN Emergency Notification Form .....	33
Attachment C: IOWARN Request and Authorization Form .....	35
Attachment D: Cost Estimator Worksheet .....	37
Attachment E: Mutual Aid/Assistance Coordinator Checklist .....	40
Attachment F: Staging Area Manager Checklist .....	46
Attachment G: Daily Briefing Considerations .....	49
Attachment H: Responding Utility Checklist .....	50
Attachment I: IOWARN Response Team Member Checklist.....	54
Attachment J: IOWARN Request Summary Sheet .....	58
Attachment K: Activity Log .....	59
Attachment L: State Emergency Operations Center/IOWARN Response Coordination Site.....	60
Attachment M: AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual....	62

## Record of Changes Form

Changes to this document are expected due to lessons learned, updates to protocols, and/or modification to the IOWARN Agreement. The IOWARN will document all changes to the Plan according to the following procedure:

1. Record updates/changes on the log below. (Add new pages as needed.)
2. The IOWARN Steering Committee approves updates to this IOWARN Operational Plan and electronically advises all Member utilities and Associate Members when approved updates have been made and are available on the IOWARN Web site.
3. Member utilities replace old pages with current pages and destroy outdated material.

Change Number	Date of Approval	Section #, Header, and Page #	Brief Description of Change	Approved by
1				
2				
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10				

## List of Tables and Figures



**Reader Note 4:** Each IOWARN may include additional tables and figures from utility emergency response plans or other documents.

Figure 1 – Member Utilities Follow IOWARN Operational Plan to Activate the IOWARN Agreement	2
Table 1 – IOWARN Operational Plan: Content and Purpose by Section	3
Figure 2 – Elements of the IOWARN Organizational Structure	5
Figure 3 – Utility Field Response	17
Figure 4 – Utility IC Reporting to Utility Management	17
Figure 5 – Utility Agency Representative Reporting to IC and Independent Utility Management	18
Figure 6 – Utility Agency Representative Reporting as Part of City/County Government	18
Figure 7 – Utility Activation of IOWARN Mutual Aid/Assistance Process Flow Diagram	21

## List of Acronyms

**AWWA**

American Water Works Association

**DOC**

Department Operations Center

**EMAC**

Emergency Management Assistance Compact

**EOC**

Emergency Operations Center

**ERP**

Emergency Response Plan

**ESF**

Emergency Support Function

**FEMA**

Federal Emergency Management Agency

**HSEEP**

Homeland Security Exercise and Evaluation Program

**HSPD**

Homeland Security Presidential Directive

**IAP**

Incident Action Plan

**IC**

Incident Commander

**ICS**

Incident Command System

**MACS**

Multi-Agency Coordination System

**NIMS**

National Incident Management System

**NRF**

National Response Framework

**PA Program**

FEMA Public Assistance Program

**U.S. DHS**

U.S. Department of Homeland Security

**U.S. EPA**

U.S. Environmental Protection Agency

**USACE**

U.S. Army Corps of Engineers

**IOWARN**  
Iowa Water/Wastewater Agency Response Network

June 2012

v

## List of Definitions from the IOWARN Agreement

### **Activation**

Occurs when one Member utility calls another Member utility to discuss the exchange of resources.

### **Associate Member**

Any non-utility participant, approved by the Steering Committee, that provides a support role for the IOWARN program and who is a member of the Regional or State Steering Committees and does not officially sign the IOWARN Agreement.

### **Authorized Representative**

An employee of a Member authorized by the Member's governing board or management to request assistance or offer assistance under the IOWARN Agreement.

### **Confidential Information**

Any document shared with any signatory to the IOWARN Agreement that is marked confidential, including but not limited to any map, report, notes, papers, opinion, or e-mail which relates to the system vulnerabilities of a Member or Associate Member.

### **Emergency**

A natural or manmade incident that is, or is likely to be, beyond the control of the services, personnel, equipment, and facilities of a IOWARN Member.

### **Incident**

In this document, the term incident is used as a generic description for a planned event, a small incident, or major disaster.

### **Member**

Any public or private water or wastewater utility that manifests intent to participate in IOWARN by executing the IOWARN Agreement.

### **Mutual Aid**

Mutual aid is the sending and receiving of personnel, equipment, and resources without the expectation of reimbursement. The IOWARN Agreement may be executed under the same understanding if so agreed between both parties in writing prior to sending aid.

### **Mutual Assistance**

While operationally consistent with mutual aid, mutual assistance is the provision of personnel, equipment and resources with the understanding that reimbursement is expected as described in the IOWARN Agreement.

### **National Incident Management System (NIMS)**

A national, standardized approach to incident management and response that sets uniform processes and procedures for emergency response operations.

### **Non-Responding Member**

A Member that does not provide assistance during a period of assistance under IOWARN.

**Period of Assistance**

A specified period of time during which a Responding Member assists a Requesting Member. The period begins when personnel, equipment, or supplies depart from a Responding Member's facility and ends when the resources return to their facility (portal to portal). All protections identified in the IOWARN Agreement apply during this period. The specified period of assistance may occur during response to or recovery from an emergency, as previously defined.

**Requesting Member**

A Member who requests assistance under IOWARN.

**Responding Member**

A Member that responds to a request for assistance under IOWARN.

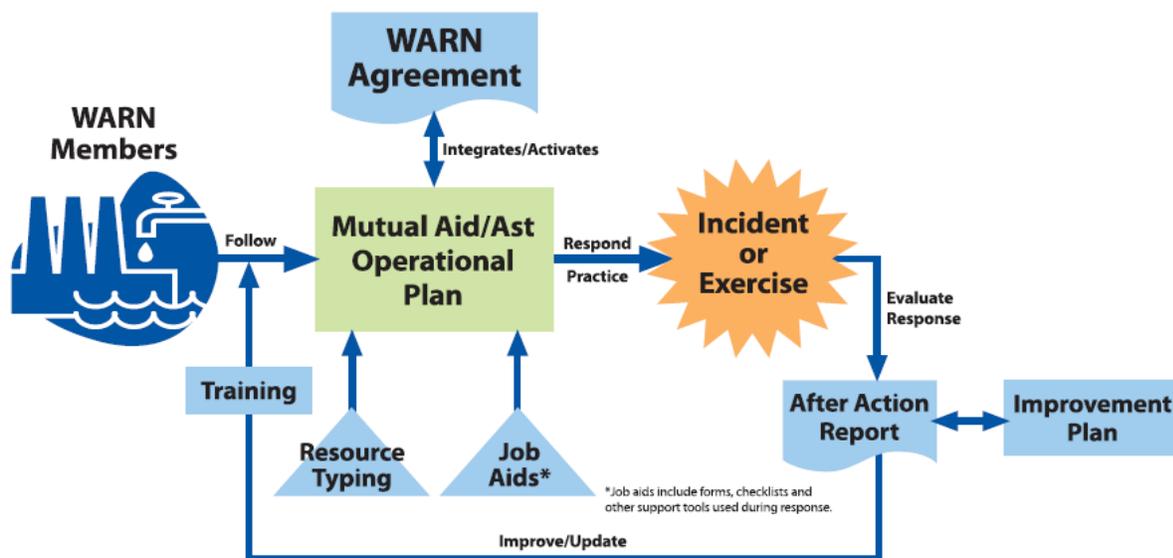
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## Introduction

Mutual aid and assistance agreements such as Water/Wastewater Agency Response Networks (IOWARNs) help local jurisdictions respond to incidents that call for resources beyond the capability of a local utility. The IOWARN Agreement identifies the administration of the program, describes how to access mutual aid/assistance, specifies reimbursement procedures for the use of resources, and authorizes the creation of a IOWARN Operational Plan.

While the IOWARN Agreement is the legal instrument authorizing the exchange of resources, the IOWARN Operational Plan is the operational extension of the IOWARN Agreement and outlines the procedures that need to be in place to make the IOWARN Agreement work. The IOWARN Operational Plan describes how to implement the IOWARN Agreement. Other documents, such as the American Water Works Association's (AWWA) *Water & Wastewater Mutual Aid & Assistance Resource Typing Manual*, identify the type of teams and associated equipment that utilities may request<sup>1</sup>. All three of these documents (the IOWARN Agreement, IOWARN Operational Plan, and *Water & Wastewater Mutual Aid & Assistance Resource Typing Manual*) are interrelated and support the mission of IOWARN. Other job aids may be developed to help facilitate the implementation of the IOWARN Operational Plan.

Figure 1 shows how Member utilities activate the IOWARN Agreement by following the IOWARN Operational Plan and illustrates how Resource Typing is integral to requesting mutual aid/assistance. Exercising the IOWARN Operational Plan, and using Resource Typing and other tools or job aids, ensures proper functionality of IOWARN.



<sup>1</sup> AWWA developed the AWWA *Water & Wastewater Mutual Aid & Assistance Resource Typing Manual* to provide guidance to water and wastewater utilities when they request and provide mutual aid/assistance resources during and after an emergency. Resource typing is the categorization and description of response resources that are commonly exchanged in disasters through mutual aid/assistance agreements. For more information on resource typing, visit <http://www.fema.gov/emergency/nims/rm/rt.shtm>. The AWWA *Water & Wastewater Mutual Aid & Assistance Resource Typing Manual* is available at [www.nationalIOWARN.org](http://www.nationalIOWARN.org).

## Figure 1: Member Utilities Follow the IOWARN Operational Plan to Activate the IOWARN Agreement

### Purpose of the IOWARN Operational Plan

The IOWARN Operational Plan is an instructional guide for IOWARN Member utilities and Associate Members describing the use of the IOWARN Agreement and the coordination of resource flow. It is not designed to be a command and control element outside of the emergency management system. Rather, it is a coordination tool within the emergency management system. The IOWARN Operational Plan facilitates integration of Member utilities' actions before, during, and after an incident, including those actions that occur prior to a formal emergency declaration. The IOWARN Operational Plan also describes how to sustain operations throughout the emergency and into recovery. Specifically, the IOWARN Operational Plan achieves the following goals:

- Describes the pre-emergency governance structure of the IOWARN program
- Describes training, exercises, and procedures to update the IOWARN Operational Plan
- Provides a general set of procedures for coordinating with Associate Members and other response partners
- Provides a general set of procedures for activating the IOWARN Agreement
- Provides a general set of procedures for mobilization of IOWARN Member utility resources
- Provides a general set of procedures for internal IOWARN response coordination
- Describes documentation and forms for IOWARN standard reporting formats
- Describes communications tools for IOWARN Member utilities
- Describes a general set of procedures for writing an After Action Report and Improvement Plan

The IOWARN Operational Plan also addresses how the IOWARN will utilize other available tools, such as the *AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual*.

### Organization of the IOWARN Operational Plan

Table 1 shows how the IOWARN Operational Plan is organized. Notably, Sections 4, 5, 6, 7, and 9 (the shaded sections in the table) address actions that will be taken by the IOWARN Member utilities during an emergency.

**Table 1. IOWARN Operational Plan: Content and Purpose by Section**

Section	Content	For use by:	When it is used:
1.	Pre-emergency Governance Structure	Staff responsible for administrative and preparedness activities	Pre-emergency
2.	Training, Exercises, and Updates	Staff responsible for preparedness activities	Pre-emergency
3.	Concept of Operations	Staff planning and establishing IOWARN operations prior to an emergency	Pre-emergency
4.	IOWARN Activation	Member utilities requesting assistance and Member utilities responding to requests	During IOWARN activation
5.	Response Considerations	Member utilities responding to requests	During IOWARN activation

Section	Content	For use by:	When it is used:
6.	IOWARN Response Coordination	IOWARN Response Team Members helping to coordinate the IOWARN Member's response during an emergency	During IOWARN activation
7.	IOWARN Communication Tools	Member utilities requesting assistance and Member utilities responding to requests	During IOWARN activation
8.	After Action Report and Improvement Plan	Staff responsible for post-incident activities	Post-emergency
9.	Attachments	Member utilities requesting assistance and Member utilities responding to requests	During IOWARN activation

## Assumptions

Several key assumptions form the basis of this document and implementation procedures for the IOWARN:

- Emergency Response Plans are in place.** While utility-specific Emergency Response Plans (ERPs) are not within the scope of this document, the IOWARN encourages all utilities to develop or update an ERP. With the establishment of the National Incident Management System (NIMS), ERP updates include how a utility uses the Incident Command System (ICS), how a utility integrates with its local emergency management and response agencies, and how the ERP addresses vulnerability assessments, if they are also completed. Additionally, Member utilities' ERPs can integrate expected IOWARN activities.
- Designated personnel are trained according to their ERP, ICS, NIMS, and Resource Typing.** In order to respond to all emergencies, Member utilities can provide practical employee training regarding the utility ERP, ICS, and NIMS. Additional training on how to use mutual aid/assistance resources ensures the ability to coordinate response with outside agencies. *Section 2* of this document includes a list of recommended NIMS and ICS trainings. Additionally, employees can be familiar with resource typing efforts such as that described in the *AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual*.
- Utilities have signed a single, statewide omnibus IOWARN Agreement.** The IOWARN Agreement establishes the foundation of IOWARN and serves as the legal instrument authorizing the request for mutual aid/assistance, provides a mechanism for reimbursement, identifies the legal protection and immunities for employees and for use of resources, and establishes eligibility for possible federal reimbursement of expenditures associated with mutual aid/assistance.
- Integration of the IOWARN Operational Plan.** The IOWARN Steering Committee approved the IOWARN Operational Plan with feedback from a review team and distributed the plan to educate Member utilities and Associate Members. It is the Member utilities' and Associate Members' responsibility to integrate the IOWARN Operational Plan into their respective emergency response or emergency operations plans. Descriptions of the IOWARN Operational Plan and suggested training do not replace other regulated trainings, such as those required for hazardous materials response.

- **The IOWARN Operational Plan is coordinated with local and state authorities.**

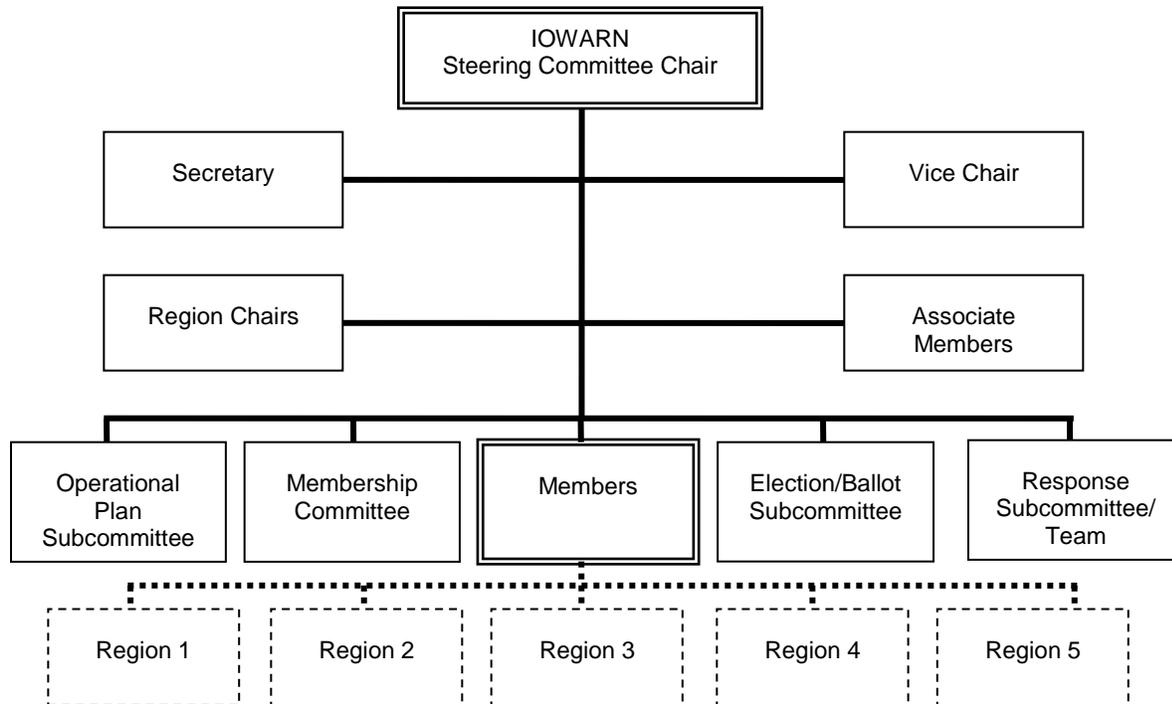
Coordinated response and access to restricted areas relies on communication between the IOWARN and the following groups or organizations:

- Utilities
- Local emergency management agencies
- State emergency management agency
- State drinking water primacy agency
- State wastewater permitting authority
- Local and State law enforcement authorities

The relationship between the IOWARN, state and local agencies, and utilities, is defined by the IOWARN Agreement and documented in this IOWARN Operational Plan. Exercising with Member utilities, Associate Members, and other response agencies facilitates an increased level of preparedness to respond to an actual emergency.

## SECTION 1: Pre-Emergency Governance Structure

The IOWARN is organized according to the structure shown in Figure 2 and the responsibilities of each organizational element are detailed immediately after the diagram.



**Figure 2: Elements of the IOWARN Organizational Structure**

### Member Utility

A Member utility may be any public or private water or wastewater utility that signs the IOWARN Agreement. The Member utility identifies an Authorized Representative and alternates to manage its participation in the IOWARN and response to possible incidents. Member utilities are eligible to participate in one or more committees to support the IOWARN. Additionally, the IOWARN encourages Member utilities to participate in all meetings, trainings, and other activities.

Pre-emergency responsibilities for Member utilities include the following:

- Identify an Authorized Representative and alternates who are responsible for the following:
  - Requesting Assistance
  - Offering Assistance
  - Refusing Assistance
  - Withdrawing Assistance
- Provide the IOWARN with contact information for their Authorized Representative and alternates
- Ensure employees are trained according to the current NIMS guidance and complete relevant training requirements as appropriate
- Identify procedures for how or when the Authorized Representative may request or send mutual aid/assistance

- Clarify reporting and coordination procedures with the local emergency management officials
- Review the IOWARN Operational Plan and incorporate appropriate portions into the utility emergency response plan
- Develop procedures to track costs for personnel, equipment, and other resources during an emergency
- Volunteer to support the pre-emergency organization of the IOWARN, as available
- Attend IOWARN trainings and general meetings
- Maintain IOWARN database information for utilities in accordance with their policy. Print a hard copy of the IOWARN database on a periodic basis (e.g. every six months) to ensure the information is available when a power loss disrupts computer access
- Update the contact and other database information every six months or as changes occur

### **Steering Committee**

The IOWARN Steering Committee includes Member utilities and Associate (non-utility) Members. The state drinking water primacy agency, state wastewater permitting authority, emergency management agency, and water sector associations are included in the Steering Committee as Associate Members. Under the leadership of the Steering Committee Chair (referred to as the IOWARN Chair), the Steering Committee is responsible for the following actions:

- Organize and coordinate emergency planning and response activities for the IOWARN
- Encourage the active participation of Member utilities
- Establish regular Steering Committee meeting schedules to maintain continuity
- Maintain communication with Member utilities regarding updates, changes, or modifications to the IOWARN
- Maintain the IOWARN Operational Plan for implementing the IOWARN Agreement
- Obtain and manage grants as available
- Manage issues related to Web site management
- Determine costs associated with hosting workshops, training, etc.
- Set training and exercise schedules
- Represent the membership when engaged in meetings, discussions, and consultations with other associations, states, and local agencies regarding the IOWARN

The Steering Committee consists of:

- Steering Committee Chair
- Vice Chair
- Secretary
- Intrastate Region Chairs
- Associate Members
- Subcommittee Chairs

### **Steering Committee Chair**

The Steering Committee Chair is elected by the members of the IOWARN Steering Committee and is responsible to:

- Represent the IOWARN Member utilities to the state emergency management agency, state drinking water primacy agency, and state wastewater permitting authority in emergency planning matters
- Preside at all duly constituted meetings of the membership
- Act as the Executive of the Steering Committee and an *ex officio* member of all standing

committees

### **Vice Chair**

The Vice Chair is elected by the members of the IOWARN Steering Committee. The Vice Chair performs duties as assigned by the Chair. During a temporary absence of the Steering Committee Chair, the Vice Chair provides direction to the IOWARN Steering Committee. In case the IOWARN Steering Committee Chair retires, resigns, or experiences a long-term absence, the Vice Chair acts in place of the Chair until the IOWARN Steering Committee elects a new Chair.

### **Secretary**

The Chair appoints the Secretary, who is responsible to record proceedings at all meetings of the Steering Committee, and:

- Edit and publish any official administrative publications for the Steering Committee
- Receive and maintain a file of notes and records for the Steering Committee and subcommittees
- Send official messages approved by the Chair to Member utilities – either directly or through the Intrastate Region Chairs
- Perform other administrative duties as assigned

### **Intrastate Region Chairs**

IOWARN state regions may align with or overlap the state emergency management agency, state drinking water primacy agency, or state wastewater permitting authority regions. Member utilities nominate and elect Intrastate Region Chairs from their respective regions who are responsible to:

- Represent Member utilities of the identified region on the Steering Committee
- Attend IOWARN Steering Committee meetings
- Vote on matters pertaining to the operation and management of the IOWARN
- Coordinate regional activity with the emergency management agency and other agencies
- Assist with the preparation of meetings and trainings

### **Associate Members**

Associate Members sit on the IOWARN Steering Committee as advisors. An Associate Member is a non-utility IOWARN participant that provides a support role to the IOWARN on the Steering Committee, but does not sign the IOWARN Agreement. Associate Members include:

- Professional water sector association representatives
- State drinking water primacy agency
- State wastewater permitting authority
- State emergency management agency
- State department of public health
- U.S. Environmental Protection Agency Regional Office

Associate Members attend IOWARN Steering Committee meetings and participate in IOWARN activities. Depending on the level of activity of the Associate Member, he or she may be elected as the Chair, or appointed Vice Chair or Secretary. As advisors, these Associate Members do not vote on IOWARN actions, but do provide input.

## Subcommittees

Standing Subcommittees include:

- Operational Plan
- Response

Ad-hoc Subcommittees include:

- Membership
- Election/Ballot

Additional subcommittees may be appointed to address such issues as Web content or training and exercises. IOWARN Member utilities and Associate Members may participate in one or more subcommittees. The Steering Committee approves the creation of and membership in the subcommittees.

## Operational Plan Subcommittee

The IOWARN Steering Committee enlists volunteer(s) from Member Utilities and Associate Members to serve on the Operational Plan subcommittee to develop the IOWARN Operational Plan and to ensure the IOWARN is ready to respond. This “standing subcommittee” focuses on procedures and materials designed to manage and improve the operations of the IOWARN. The subcommittee is responsible to:

- Maintain the IOWARN Operational Plan
- Identify a process for how the Steering Committee will approve and authorize the publication of the IOWARN Operational Plan, as well as its distribution through the Steering Committee Chair
- Maintain contact with local, regional, and state emergency management agency, state drinking water primacy agency, and state wastewater permitting authority representatives
- Provide recommendations on how to manage Member utility contact data and resource lists
- Conduct regular Member utility trainings to maintain familiarity with the IOWARN Operational Plan
- Conduct an “after action review” of IOWARN operations following each emergency and make recommendations for improvement

## Response Subcommittee/Team

The IOWARN Steering Committee establishes the Response Subcommittee, which includes a large cadre of trained volunteer members with specific roles and responsibilities during non-emergency and emergency situations. Because of the responsibilities of this group, the IOWARN considers this to be a regular standing subcommittee. Under non-emergency conditions, the Response Subcommittee organizes exercise programs as needed to test the IOWARN Operational Plan with Member utilities. They also participate in exercises (as appropriate) conducted by individual utilities, local government, and county or state emergency management organizations. Members of the Response Subcommittee serve as members of the IOWARN Response Team if incidents affect more than one utility at a time and coordination at a higher level is needed (see *Section 6* for additional details on the roles and responsibilities of the

IOWARN Response Team).

The IOWARN Response Team coordinates various activities based on the type of incident and extent of damage. These activities may include collecting information, assisting in the location of response resources, and supporting coordination amongst response partners. As the incident expands, individual IOWARN Response Team members may be assigned to focus on one specific activity:

- Manage damage assessment data
- Receive, track, and monitor requests
- Coordinate resource orders
- Coordinate staging area information

### **Membership Subcommittee**

To increase membership in the IOWARN, the Steering Committee establishes a Membership Subcommittee, which is responsible to:

- Develop and/or maintain marketing or informational materials for outreach purposes
- Conduct informational outreach at professional association conferences and workshops to ensure presentation of the IOWARN concept
- Market and recruit new Member utilities

### **Elections/Balloting Subcommittee**

There are two occasions on which the IOWARN will hold an election or a vote: first, when Steering Committee members, Region Chairs, or the IOWARN Chair are elected to their positions; and second, when updates to the IOWARN Agreement require a vote. When the Steering Committee identifies that elections or ballots are required, an ad-hoc subcommittee will be established to distribute and collect ballots.

Voting will occur according to the following rules. Each Member utility has one vote. A utility that operates both water and wastewater services has one vote. A private utility with multiple service locations also has just one vote (in relation to one decision-making board). Associate Members do not vote. Notice of a ballot and rules of the ballot process are sent to the Authorized Representatives of Member utilities a month in advance of the voting deadline. Ballots may be in electronic or written form, and collected at either an identified meeting or by fax or e-mail, as determined by the Steering Committee.

## SECTION 2: Training, Exercises, and Updates

The IOWARN Member utilities are encouraged to develop multi-year Training and Exercise Plans. The IOWARN program may provide some trainings or participate in the trainings and exercises at the request of an individual Member utility or at the request of a local, county, or state government exercise. Authorized Representatives, Response Team members, and other relevant stakeholders may participate. The IOWARN Steering Committee encourages Member utilities to develop Training and Exercise Plans that include the following components.

### **Training**

The IOWARN Steering Committee may provide the following training to enhance response with mutual aid/assistance resources and ensure the ability to coordinate response with outside agencies:

- Understand the IOWARN Agreement
- Reviewing the IOWARN Operational Plan and how to fill out the appropriate forms
- Understand the IOWARN Web site, database, and other communication protocols
- Understand the AWWA *Water & Wastewater Mutual Aid & Assistance Resource Typing Manual*

Member Utilities need to ensure all employees are trained on the utility's specific safety procedures and emergency response plan. Additionally each utility implements the NIMS training requirements according to its internal policy. Depending on the person's role in the incident, some of the training courses may include:

- IS-100 Introduction to the Incident Command System for Water Sector Personnel
- IS-200 ICS for Single Resources and Initial Action Incidents
- IS-300 Intermediate ICS, Expanding Incidents (Classroom Instruction Only)
- IS-400 Advanced ICS, Command and General Staff – Complex Incidents (Classroom Instruction Only)
- IS-700 National Incident Management System, An Introduction
- IS-800.B National Response Framework (NRF), An Introduction

Member utility representatives who serve on the Response Subcommittee/Team also need to complete:

- IS-630 Introduction to the Public Assistance Program
- IS-701 Multi-agency Coordination Systems
- IS-703 NIMS Resource Management
- IS-706 NIMS Intrastate Mutual Aid - An Introduction
- Training on Exercise Design
- Training on State operational activities
- Training on the Emergency Management Assistance Compact (EMAC)

### **Exercises**

The IOWARN may participate in a Member utility's and/or local, county, and state exercise plans. The plan could include a building-block approach in which exercise activities focus on specific capabilities in a cycle of escalating complexity. Of the seven types of exercises described by U.S. Department of Homeland Security's (DHS) Homeland Security Exercise and Evaluation Program (HSEEP),<sup>2</sup> the Training and Exercise Plan focuses on the following three.

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<sup>2</sup> For more information on U.S. DHS HSEEP, visit <https://hseep.dhs.gov/>.

**Tabletop Exercises**

Tabletop exercises, a type of discussion-based exercise, bring together key personnel to discuss hypothetical scenarios in an informal setting. The IOWARN may organize one at their annual meeting or participate in at least one Member utility tabletop exercise annually to assess plans, policies, and procedures, or to evaluate the systems needed to guide the prevention of, response to, and recovery from a defined incident. The IOWARN may also participate in exercise programs designed and run by local or state emergency management authorities as opportunities arise.

**Functional Exercises**

A functional exercise simulates everyday operations in a functional area by presenting complex and realistic problems that warrant rapid and effective responses by trained personnel operating in a highly stressful, time-constrained environment. The IOWARN may participate in a Member utility's, local government's, or state's functional exercises as opportunities arise.

**Full-Scale Exercises**

Full-scale exercises focus on implementing and analyzing the plans, policies, procedures, and cooperative agreements developed in discussion-based exercises and honed in previous, smaller, operations-based exercises. The IOWARN may participate in a Member utility's, local government's, or state's full-scale exercises as opportunities arise.

**Updating IOWARN Documents**

Following an incident, exercise, or every five years, (whichever is soonest), the IOWARN Operational Plan Subcommittee will notify the IOWARN Member utilities that comments are being accepted, collect the comments, and will revise the IOWARN Operational Plan as appropriate. The IOWARN Steering Committee reviews the revised plan and approves any changes. The IOWARN Steering Committee also will communicate IOWARN Operational Plan changes to IOWARN Members and Associate Members and those persons who are assigned roles within the plan.

Member utilities' and Associate Members' are responsible to integrate the updated IOWARN Operational Plan into their respective emergency response or emergency operations plans.

Any suggested changes that impact the IOWARN Agreement are handled separately from the IOWARN Operational Plan updates. Two appointed legal representatives from Member utilities may review the suggestions to determine the impact on the IOWARN Agreement. Based on review of the impacts, the Steering Committee determines whether to submit the changes for a vote to the Member utilities. An announcement of the proposed changes is made to each Member utility that includes a ballot and deadline for a vote. Results of the vote will be shared with the Member utilities. Member utilities not in agreement with the changes may determine whether to continue participating in IOWARN.

**Using the Record of Changes Form**

The Operational Plan Subcommittee reviews the IOWARN Operational Plan and submits it to the IOWARN Steering Committee for final approval. The IOWARN Steering Committee determines the process for distributing updates to Members and Associate Members. The IOWARN Steering Committee distributes announcements of updates by using the "Record of Changes Form" attached at the beginning of the IOWARN Operational Plan. The IOWARN Steering Committee records any updates or changes to any part of this document.

## SECTION 3: Concept of Operations

### ***IOWARN Relation to Local, State, and Federal Response***

The relationship between the IOWARN and the local and state emergency response system is critical. According to NIMS, local jurisdictions retain command, control, and other authority over response activities for their jurisdictional areas.<sup>3</sup> Incidents typically begin and end locally and are managed on a daily basis at the lowest possible geographical, organizational, and jurisdictional level. Local jurisdictions have flexibility to adjust the scale and scope of their response to the emergency. Should the local and state jurisdictions become overwhelmed during a response; the state may request federal assistance.

The following is a list of the emergency responsibilities and levels of response that may be part of a mobilization of the IOWARN. The cumulative activities mirror those described in the NIMS Multi-Agency Coordination System (MACS) Group process (for more information on MACS, see the training courses at <http://training.fema.gov/>). In general, a MACS is a combination of facilities, equipment, personnel, procedures, and communications integrated into a common system with responsibility for coordinating and supporting domestic incident management activities. While direct tactical and operational responsibility for conducting incident management activities rests with the Incident Command, the primary functions of a MACS include the following:

- Support incident management policies and priorities
- Facilitate logistics support and resource tracking
- Inform resource allocation decisions using incident management priorities
- Coordinate incident related information
- Coordinate interagency and intergovernmental issues regarding incident management policies, priorities, and strategies

The IOWARN and its various levels of interaction as described below can be considered a MACS.

Depending on the size of the emergency, all levels of response described below may not be needed every time the IOWARN is activated. *As all emergencies are local, if resource needs can be addressed by one utility calling another, that may be all that is needed.* A designated person from a Member utility contacts the IOWARN Response Team (who contacts the Steering Committee) or directly contacts the Steering Committee so that the Steering Committee is aware that resources were requested. This can be accomplished via e-mail (if operational), phone, radio, fax, or other means available. In emergencies that affect more than one locality, coordination at the county level may be necessary. In an emergency that affects multiple counties, coordination at the state level may be necessary.

#### **Role:**

Utility Field Personnel

#### **Description of Activity:**

- These are the utility employees in the field responding to an emergency.
- Homeland Security Act of 2002 (P.L.107-296) and Homeland Security Presidential Directive (HSPD) 8 identify local utilities as first responders.
- As first responders, utility employees in the field are trained and function within the Incident Command System (ICS).
- Field personnel report to their respective employer utility while coordinating response with local emergency response agencies (e.g. law enforcement, fire,

<sup>3</sup> Page 12. Draft National Incident Management System. April 2007.

<b><u>Role:</u></b>	<b><u>Description of Activity:</u></b>
Utility (Private or Public)	<p>rescue, emergency medical, etc.). This is known as unity of command in ICS.</p> <ul style="list-style-type: none"> <li>• Public utilities can be part of a city or county agency, or an independently governed special district not affiliated with a city or county. Public utilities comply with specific requirements, including the use of NIMS, to be eligible for federal preparedness grants.</li> <li>• Private utilities are generally investor-owned and operated. While not required to comply with NIMS, most private utilities do as a best practice approach.</li> <li>• If the local utility is a city or county department or work unit, the utility may establish a department operations center (DOC) and/or report directly to the appropriate city or county Emergency Operations Center (EOC).</li> <li>• Special districts or independent utilities may activate an agency DOC, and/or depending on the number of cities or counties served, the utility may directly report to or participate with a city, county, or state EOC.</li> </ul>
Local Government (Cities)	<ul style="list-style-type: none"> <li>• Depending on the size and complexity of an emergency, local governments may operate EOCs to coordinate resources and manage operations within the jurisdiction.</li> <li>• Local governments may assist the local utility with the emergency, provided that local resources and supplies are available and that Local Government response resources can be dedicated to this responsibility.</li> <li>• If necessary, the city may request county (or parish) and state assistance.</li> </ul>
County (Parish) Government	<ul style="list-style-type: none"> <li>• Typically led by county (or parish) management, a county (or parish) EOC may be activated to coordinate the emergency response actions of all jurisdictions within the boundary of the county (or parish).</li> <li>• Upon request or when response to disruption of local drinking water or wastewater systems becomes a priority for the county (or parish), staff may be identified to help coordinate county (or parish) resources to assist cities, special districts, and local utilities.</li> <li>• If necessary, the county (or parish) may request state assistance.</li> </ul>
IOWARN	<ul style="list-style-type: none"> <li>• Designated IOWARN representatives may sit in the county and/or state EOC to facilitate information flow from damaged utilities, identify utility mutual aid/assistance resources, and coordinate response.</li> <li>• If the IOWARN representatives do not sit in the state EOC, the IOWARN representatives may meet at a designated facility, a Member utility's DOC, or at the county (or parish) and/or city EOC to help coordinate IOWARN Member utility mutual aid/assistance response.</li> <li>• Depending on the organizational plan, when in a city, county (or parish), or state EOC, the IOWARN representatives could be seated in the Operations Section, Planning Section, Response Coordination group, or another designated reporting location.</li> </ul>
State Government	<ul style="list-style-type: none"> <li>• As needed, the state coordinates state and regional resources to assist the cities and counties (or parishes).</li> <li>• Typically led by state management, a state EOC may be activated to coordinate the emergency response actions of all jurisdictions within the state.</li> <li>• Upon request or when response to disruption of local water distribution becomes a priority, staff from the state drinking water primacy agency and the state wastewater permitting authority may be identified to help coordinate state</li> </ul>

**Role:****Description of Activity:**

- resources to assist counties, cities, special districts, and local utilities.
- As needed, the state may request assistance from the National Guard, drinking water primacy agency, wastewater permitting authority, other states (through EMAC), or federal government agencies.
- Federal Government
- As a support agency to Emergency Support Function #3 (ESF #3), Public Works and Engineering, EPA works closely with the U.S. Army Corps of Engineers (USACE) and Federal Emergency Management Agency (FEMA). EPA is also the sector specific agency for the water sector as detailed in HSPD-7.
  - When local drinking water or wastewater system disruption necessitates federal assistance, FEMA coordinates federal emergency response resources through ESF #3. As an ESF #3 primary agency, USACE is responsible for coordinating supplemental assistance to state and local jurisdictions.
  - Water infrastructure may also be supported by other ESFs, such as 4, 8, 10, 11, and 14.

***Response Considerations by Role***

According to NIMS, all emergencies are local and begin with the field<sup>4</sup> response. It is important that IOWARN Member utilities understand how to optimize and work within the Incident Command System (ICS) during a response. As described in **Section 2**, the appropriate NIMS IS-100 and 200 training courses are available online. The following is a description of how the IOWARN might anticipate the use of ICS in connection with IOWARN.

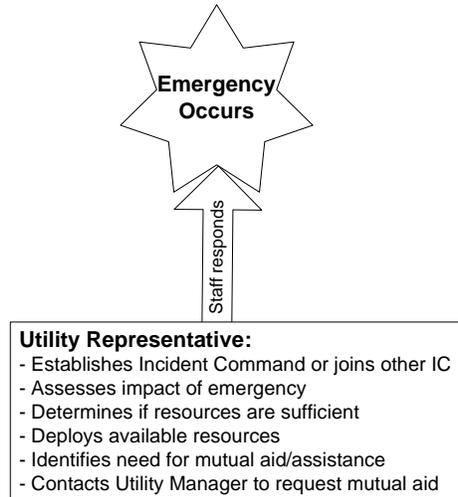
**Field Response**

Using ICS, designated utility field personnel manage personnel and resources to carry out tactical decisions and activities in direct response to an incident or threat. **Figure 3** demonstrates utility field personnel actions at a remote facility, plant, or main break.

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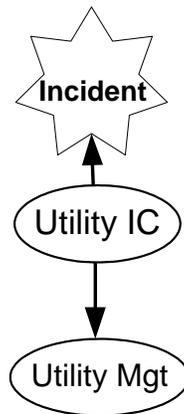
<sup>4</sup> “Field” refers to any response remote from the utility headquarters. This could include response to a filter plant, pumping plant, pump station, main break, etc.

When the incident is a utility-specific event (such as a major water main break, or damage to a treatment plant, water pump, or enclosed clean water reservoir, etc.) the first utility responder to the scene becomes the Incident Commander (IC). The role of command remains at the field scene. The IC characterizes the scene, assesses the impact to the immediate surroundings, manages access to the scene, monitors the conditions, and identifies what resources are needed and where incoming resources report.



**Figure 3: Utility Field Response**

Additionally, the IC communicates with the utility’s management, who directs all available resources of the utility to address the need of the emergency. In this case, the communication from the scene is a direct connection to the utility management. **Figure 4** demonstrates this direct communication link to the utility management where the decision to request mutual aid/assistance is made. Command remains in the field with the IC until command is transferred to another person in the field who is more qualified to handle the event, or the designated time for shift change is reached.

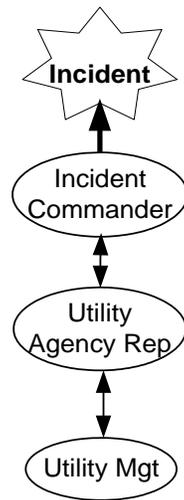


**Figure 4: Utility IC Reporting to Utility Management**

In the event the utility is called to respond to an incident where a law enforcement, fire, or public works Incident Commander (IC) is already identified, the utility responder becomes a part of the established response organization. According to ICS, when a person represents an agency (utility in this case) at the Incident Command Post, they are called an “Agency Representative.” The primary responsibility of the utility Agency Representative is to coordinate response of the utility management with the needs of the

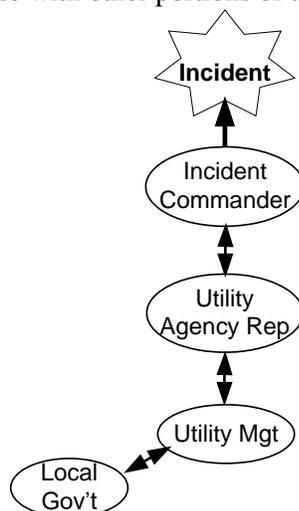
emergency and provide support to the Incident Commander (IC).

While working with the Incident Commander (IC), the utility Agency Representative establishes contact with utility management to report conditions and progress. *Figure 5* demonstrates how a utility Agency Representative from an independent utility reports to a law enforcement, fire, or public works IC while communicating with his or her utility management about the incident and resource needs. Utility management policies and response plans determine the exact reporting relationship and responsibilities. As a result, reporting relationships and responsibilities may vary by utility.



**Figure 5: Utility Agency Representative Reporting to IC and Independent Utility Management**

While command remains in the field with the Incident Commander (IC), for a utility that is part of a city or county government, the utility management may activate a Department Operations Center or Utility Operations Center to rally resources of the department to coordinate its response. The utility department may have to coordinate its response with other portions of the local government. *See Figure 6.*



**Figure 6: Utility Agency Representative Reporting as Part of City/County Government**

**Area Command**

In complex emergencies that expand beyond one scene, NIMS encourages the use of an Area Command which may operate in an Emergency Operations Center (EOC) or Department/Utility Operations Center. While command remains in the field with the Incident Commander at the scene, the utility establishes an Area Command (utility management in this case) in the EOC to direct resources from unaffected portions of the utility to assist in the response. Once the resources arrive at the scene, they follow the local IC in the field.

As other agencies are requested to respond alongside the utility, coordination between multiple entities may result in the use of the Multi-Agency Coordination System (MACS) concept described in NIMS. Implementing a “MACS group” is simply gathering representatives from all the involved responders together to discuss the situation, identifying responsibilities and ensuring each is helping the other. A MACS group can meet in person, over the phone or other communication service, or a combination of both. The intent is to encourage cross communication with fellow responders at the field level, local EOC level and other levels of response.

### **Local Government**

City and county (or parish) governments respond to an emergency as dictated by their local emergency plans. For a city or county to declare an emergency, the jurisdiction needs to know the extent of damage in the local area (including impact on utilities) and the need for mutual aid/assistance. It would be appropriate for a IOWARN Member utility in need to inform the local emergency management authority of the following information which is captured in the checklists and forms in the attachments to this plan:

- The Member utility that activated the IOWARN Agreement
- Requested resources
- The Member utility that is supplying the resources
- When to expect the arrival of resources
- The safe routes for ingress and access to staging locations

The city and/or county may designate specific staff to coordinate information and the needs of utilities within the city or county. The city and/or county employee may need to be educated on what the IOWARN program is and how it can assist the city or county in responding to the needs of the utility community. In this case the IOWARN Members are encouraged to communicate with the city or county. This coordination with local government is important, especially if local government establishes access controls limiting people entering a disaster area. As a local government needs assistance, the county may be requesting help and coordinating response with the state government.

### **IOWARN**

Once a Steering Committee (or Response Subcommittee/Team) member is contacted, the IOWARN is activated. Initially, the IOWARN may be managed remotely using virtual technology (such as teleconference or e-mail communication tools) to manage the information and response. If the demands of the emergency grow, the IOWARN Steering Committee or Response Subcommittee members may come together to coordinate requests. As the need for coordination increases, trained volunteers from IOWARN Member utilities that are not affected by the emergency may be requested to help with coordination of the IOWARN. These volunteers form the IOWARN Response Team (explanation of if or how these volunteers’ resources are reimbursed is described in *Section 5* of this IOWARN Operational Plan). The key responsibility is to match needs with resources offered by utilities not affected by the emergency. During large events, the IOWARN Response Team Members could be located at the state EOC or an EOC near the incident location. Alternately, the IOWARN Response Team Members could be located at an unaffected utility. In small events, IOWARN Response Team Members could be located at a county or

local EOC.

### **State Government**

The State Government manages and coordinates state resources in response to the emergency needs of the cities and counties; manages and coordinates statewide mutual aid/assistance; and serves as the coordination and communication link with the federal disaster response system or NIMS. Working with the state drinking water and wastewater agencies or emergency management authority, a representative of the IOWARN program or state employee knowledgeable of IOWARN may serve as a point of contact and maintain communication to work with government agencies to address issues such as access to the disaster area and security of resources. Once the state becomes involved in the response, requests for assistance typically are managed through the state EOC.

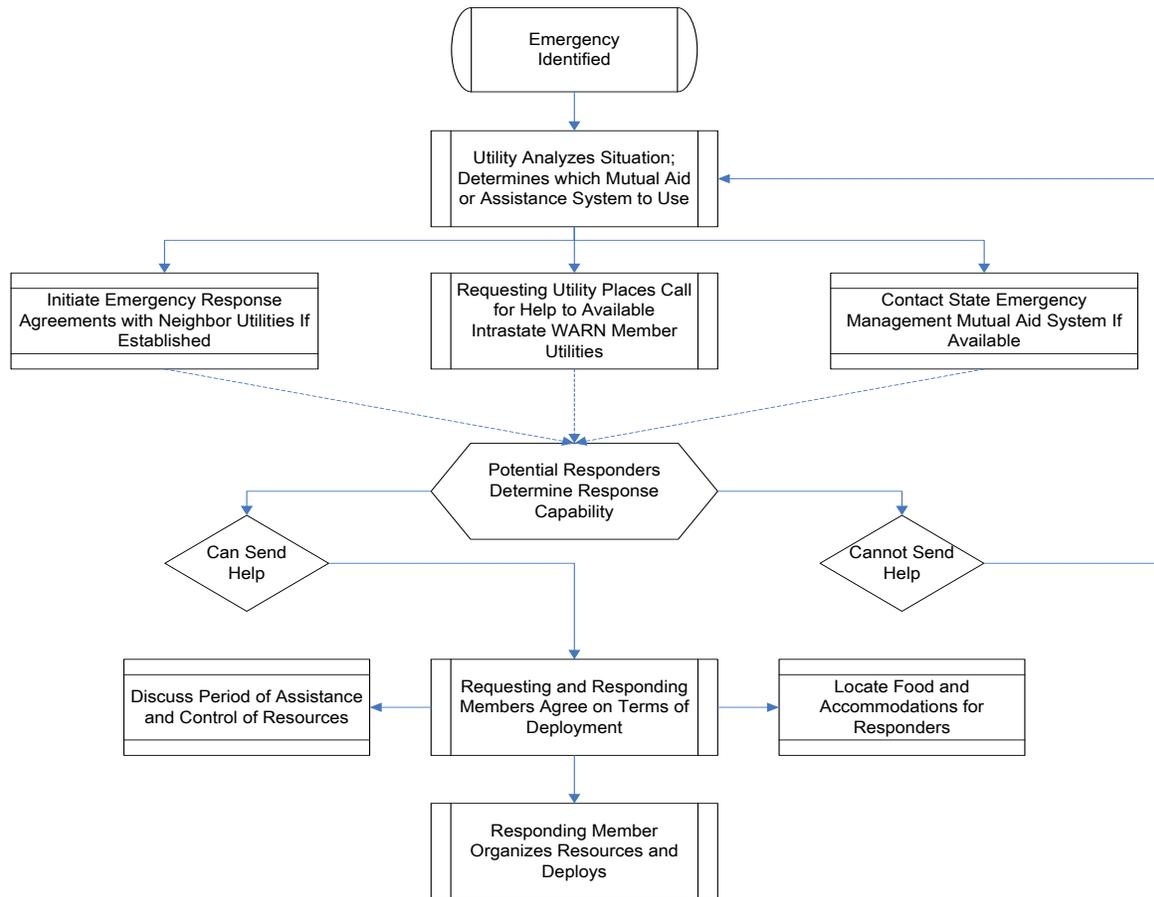
### **Federal Government**

According to the National Response Framework (NRF), federal resources are to be “forward leaning” and available for response as needed. Federal agencies with authority and responsibility may respond immediately as required by statute. Federal resources located in or adjacent to the impact area or that are affected by the emergency may respond according to a local agreement. Additional federal resources are dependent on a presidential declaration of a major disaster for deployment. As the federal response is organized, EPA supports many Emergency Support Functions, including Emergency Support Function #3 (led by the U.S. Army Corps of Engineers) which is the primary ESF to support water infrastructure response and recovery. Water infrastructure may also be supported by other ESFs, such as 4, 8, 10, 11, and 14.

## SECTION 4: IOWARN Activation

Following an incident, each Member utility initiates a damage assessment and evaluates its resource needs. When a Member utility determines that mutual aid/assistance is warranted, it has three options for receiving mutual aid and assistance: local mutual aid agreements, the IOWARN, or an existing Statewide Master Mutual Aid Agreement.

A utility may have as many as three options for obtaining assistance, including local mutual aid agreements, the IOWARN Agreement, or any existing Statewide Master Mutual Aid Agreement.



**Figure 7: Utility Activation of IOWARN: Mutual Aid/Assistance Process Flow Diagram**

Member utilities choosing to obtain aid/assistance through the IOWARN may do so as described below.

### Who Activates IOWARN?

Any Member utility of the IOWARN Agreement can determine that it needs the assistance of another Member utility and therefore decide to activate the IOWARN Agreement. (See **Attachment A: Requesting Utility Checklist**.) The IOWARN Agreement can be activated by a utility-to-utility request, or during large events through the IOWARN Response Team at the Regional EOC, or State EOC. Activation occurs when one Member utility calls another Member utility to discuss the exchange of resources. A Member utility activating the IOWARN Agreement is referred to as the Requesting Utility. When the resources of a Responding Utility fill the need of the Requesting Utility, the Authorized

Representatives confer and agree on the terms of deployment.

### **What is Activated?**

The IOWARN Agreement provides the terms of reimbursement to the Responding Utility and a release of liability for services provided. It does not determine the response times, amenities provided to the Responding Utility, or any other operations-specific needs. In addition, the IOWARN Agreement does not dictate the activation of the EOC of the Responding Utility. These items are determined by dialogue between the Requesting Utility and a Responding Utility at the time of the emergency.

### **Pre-Event Activation**

Some types of emergencies (e.g. severe storms or hurricanes) can be characterized as “IOWARNing” or “notice” events due to a build-up of intensity over time and/or scientific methods of predicting an event. This type of event allows Member utilities to anticipate the magnitude of damage and therefore response needs. Activating prior to the disaster opens the lines of communication and coordination among Member utilities which helps to ensure a timely and proactive response. The Requesting Utility can initiate the following activities:

- Notify Member utilities of the expected conditions
- Maintain contact with Member utilities about changing conditions and information
- Receive requested resources and identify follow-up actions

Other disasters provide no IOWARNing or notice (e.g. earthquakes), or end up impacting a utility in a greater way than anticipated (e.g. flash flooding). Activations during these events do not have the added benefit of pre-event planning.

### **Notification**

Notification occurs when a Requesting Utility notifies a Member utility or IOWARN Response Team (if activated) that they need resources. Initial communication occurs via a phone call, Web database, Web-based discussion board or other methods. Verbal notifications between Requesting and Responding Utilities will be confirmed via written communication (fax or e-mail) using **Attachment B: IOWARN Emergency Notification Form**. The utility requesting mutual aid/assistance gathers the following information:

- Type of incident
- Impact on utility
- Number of agencies in response
- Known limitations or restrictions
- Available communication tools

In all cases in which the IOWARN Agreement is activated, participating Member utilities notify the IOWARN Response Team or Steering Committee that the request has been made and met with resources from another member.

### **Response to a Request for Assistance**

A Member utility is not obligated to respond to a request. Once a Member utility receives a request for assistance, the Authorized Representative evaluates whether or not to respond. The Authorized Representative considers these questions:

- Does my utility have the resource requested?

- Do the resources meet the operational requirements that the Requesting Utility identified (refer to the *AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual*)?
- Did this event impact normal operation?
- If we provide resources, can we maintain our ability to respond to unanticipated needs?

If the Authorized Representative determines that resources are available to respond to the Requesting Utility, thereafter the Member utility is referred to as a Responding Utility. The Authorized Representative of the Responding Utility communicates, as soon as possible, with the Requesting Utility that it is available to respond and provides the approximate arrival time of such assistance. When possible, the Authorized Representatives of both the Requesting and Responding Utilities will confirm all verbal agreements with written documentation (fax or e-mail).

In addition, the Authorizing Representatives will clarify and agree upon the following items:

- Requesting Utility's ability to provide care and shelter (food, sleeping arrangements, first aid, etc.) for personnel and resources,
- Reimbursement process to determine whether the Responding Utility follows the reimbursement article of the IOWARN Agreement, and
- What aid the Responding Utility can provide, the cost, and confirmation of the approval from the Authorized Representative and the Member utility's management to provide aid.

If agreement is reached on the above items, the Authorized Representatives will complete and transmit the appropriate authorization forms described in ***Section 5: Response Considerations***.

## SECTION 5: Response Considerations

Upon agreement of two or more Member utilities to share their resources, both the Requesting Utility and the Responding Utility are responsible for ensuring the safe and effective use of their resources. This section provides basic considerations for response based on lessons learned from previous disasters. ICS uses a series of standard forms and supporting documents that convey directions for the accomplishment of objectives and distributing information. To be consistent with the ICS feature of standardization, there will be references to ICS forms in this and remaining sections.<sup>5</sup>

### Requesting Utility

In general, the Requesting Utility is responsible to complete the following tasks:

- Use the AWWA *Water & Wastewater Mutual Aid & Assistance Resource Typing Manual* to determine how to type the resources requested and which Member utilities can potentially meet that need
- Use **Attachment B: IOWARN Emergency Notification Form** to initiate the mutual aid/assistance process and then transmit the form to potential Responding Utility(ies)
- Discuss resource needs and conditions of use with potential Responding Utility(ies). Complete and forward **Attachment C: Request and Authorization Form** to the Responding Utility
- After the Responding Utility returns **Attachment C: IOWARN Request and Authorization Form** back to the Requesting Utility with available resources and estimated costs, review and determine whether to accept this mutual aid/assistance proposal
- Assign a Mutual Aid Coordinator to address care, feeding, and other support for incoming mutual aid personnel. See **Attachment E: Mutual Aid/Assistance Coordinator Checklist** for a list of what to consider in determining your capability to manage the mutual aid/assistance
- Notify local emergency management coordinating partners, all law enforcement agencies coordinating check points, and the Operational Area of the incoming mutual aid
- Identify a Staging Area and assign a Staging Area Manager for incoming mutual aid. See **Attachment F: Staging Area Manager Checklist**
- Identify work assignments for the incoming mutual aid
- Consider how to integrate incoming mutual aid resources with existing workforce
- Develop a demobilization plan that includes protocols on how and when mutual aid resources will be released

### Responding Utility

In general, the Responding Utility is responsible to (See **Attachment H: Responding Utility Checklist** for more detail) complete the following tasks:

- Contact the IOWARN Response Team (if convened) to notify them of available resources, based on the resources described in the AWWA *Water & Wastewater Mutual Aid & Assistance Resource Typing Manual*
- If mutual aid/assistance is requested via **Attachment B: IOWARN Emergency Notification Form** or **Attachment C: IOWARN Request and Authorization Form**, review and determine whether it can meet this request
- Estimate the cost of response utilizing **Attachment D: Cost Estimator Worksheet** if needed. These costs will then be indicated on **Attachment C** and returned to the Requesting Utility for consideration.

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<sup>5</sup> For a complete listing of ICS forms, go to the FEMA ICS Resource Center at:  
<http://training.fema.gov/EMIWeb/IS/ICSResource/index.htm>.

- Identify supervisors and staff to respond to the Requesting Utility, and consider which employees can adapt to the environment of the incident (consider physical and mental health impacts),
- Develop a Communications Plan between supervisors of the responding teams and the Responding Utility
- Conduct a deployment briefing with all responding team staff. Include the following items:
  - ICS refresher training and review of the command structure of the incident, if known
  - Pre-deployment health and safety considerations, including but not limited to immunizations, special tools, or clothing
  - Environmental conditions onsite
  - Care and shelter arrangements
  - Rules of conduct during deployment, including but not limited to, activities allowed after work hours
  - Review of documentation procedures
- Inform Requesting Utility of the Responding Utility's deployment and estimated time of arrival

### **Requesting Utility Demobilization**

Following standard ICS practices of demobilization, the Requesting Utility writes a demobilization plan on how to coordinate the return of resources, including the debriefing of staff and the inspection of equipment and materials. The plan should:

- Capture personnel evaluations and identify future tactical resource needs. This would be conducted by both the Requesting Utility prior to releasing the personnel, as well as by the Responding Utility once its personnel are back.
- Identify release priorities and procedures. This would include internal resources, mutual aid resources, and any contracted resources.

### **Responding Utility Demobilization**

While preparing to demobilize and prior to leaving, the Responding Utility's team is responsible to complete the following tasks:

- Deliver documentation collected during response to the Requesting Utility
- Return any sensitive or confidential information to the Requesting Utility
- Collect all information on costs and process it through the Requesting Utility Finance and Administration Function. Keep copies of all cost documentation for Responding Utility. Information includes:
  - Injury reports
  - Timesheets
  - Material purchased
  - Equipment used

The Responding Utility will prepare appropriate invoices as described in the IOWARN Agreement.

## SECTION 6: IOWARN Response Team Coordination

In incidents that affect more than one utility at the same time, mutual aid/assistance coordination at a higher level may be necessary. As the incident response grows or, alternatively, when an emergency starts as a large-scale event (such as a catastrophic earthquake), IOWARN coordination can expand. As the need for coordination increases, trained IOWARN Response Team members, may be called upon from non-affected parts of the state to help the area that is affected during a large emergency. This would allow impacted utilities to focus on repair and restoration issues. During an incident that affects multiple counties, coordination at a region and/or state level may be necessary, where the Response Team may respond. When more than one Response Team member arrives at a reporting site, a Response Team leader is selected to communicate with the appropriate authorities. The following applies when coordination is needed at the operational area, region, or state levels.

Once a Member utility contacts the IOWARN Steering Committee, any initial response effort may be managed by one person and then grow to include a team. If activated, the purpose of the IOWARN Response Team is to:

- Provide a point of contact and liaison for utility-related matters during an emergency
- Collect information regarding:
  - Extent and type of customer and infrastructure damages
  - General geographic location(s) of outages
  - Expected duration of outages
  - Number of customers affected
  - Resources and information requirements of the affected utilities
- Assist in locating emergency equipment, personnel, or material necessary for service restoration
- Advise utilities of restoration assistance and resources available

In order to achieve 24/7 staffing, the Response Team and the Member utilities must have accurate contact data, and the Response Team must establish a staffing plan and the means to keep it current, and then communicate it to the Member utilities. The Response Team may start activities virtually via e-mail or other communication methods. If the emergency calls for a full “team response,” the Response Team members may gather at the State EOC, a local EOC, or other designated location. When activated, the Response Team members are responsible for the overall management of the IOWARN response. (See **Attachment L** for details and information about the reporting sites.)

### Response Team Member Roles and Responsibilities

The IOWARN Response Team is organized to assist as part of a Multi-Agency Coordination System (MACS) when water sector utilities need support. At the county or state level the IOWARN Response Team may become part of an Area Command. The general responsibilities include the following (See **Attachment I: Response Team Member Checklist** for more detail):

- Coordinate and compile damage reports from utilities
- Coordinate damage assessment activities with other agencies (e.g., county emergency management agencies, utility engineers, etc.)
- Log, track, and display damage assessment information
- Provide damage assessment information to the IOWARN Team Leader or designated resource coordination Response Team member to facilitate incident prioritization
- Assemble and maintain information concerning critical facilities and special needs facilities

associated with each utility included in the IOWARN Operational Plan

- Transmit Damage Assessment Reports to the other appropriate agencies, as requested
- Support mutual aid crews in the field interacting with the public to gather more information as the emergency unfolds, and methods to gather damage information
- Coordinate damage data with the state and FEMA responders to assist in the recovery process
- Act as a liaison to the Utilities Branch of the county, region, and/or state level emergency operation centers
- Identify one member of the IOWARN Response Team to represent IOWARN at the incident briefings and meetings
- Monitor the number of requests
- Identify possible sources of additional support for IOWARN Member utilities
- Identify gaps in the requests and resources available

The IOWARN Response Team coordinates various activities based on the type of incident and extent of damage. These activities may include collecting information, assisting in the location of response resources, and supporting coordination amongst response partners. As the incident expands, individual IOWARN Response Team members may be assigned to focus on one specific activity:

- Manage damage assessment data
- Receive, track, and monitor requests
- Coordinate resource orders
- Coordinate staging area information

## SECTION 7: IOWARN Communication Tools

The primary communications tools available to the IOWARN Member utilities include the typical systems of landline telephone, cellular phone, utility radio systems, fax, and e-mail. A unique aspect of the IOWARN is use of the IOWARN Web site, which brings all of these systems together. The Web site includes a list of IOWARN Member utilities and the contact information for each.

### Radio Systems

Secondary communication tools are utility-owned radio systems. Radio is secondary to landline telephone and cellular phone due to the lack of interoperability between radios. Interoperability of radio systems would be optimal, but cannot always be achieved, due to expense. It is preferable that IOWARN Member utilities consider alternative plans to achieve the same result. IOWARN Member utilities can maintain a cache of additional radios to distribute to incoming mutual aid/assistance supervisors for communications during an emergency. Additionally, IOWARN Member utilities can consider HAM radio as an optional backup radio system.

### Web Site

The IOWARN operates a Web site: <http://iowarn.org/> which allows Member utilities to access relevant and up-to-date information before, during, and after an emergency. The Web site includes a public and Member-only side. The public side allows for promoting and marketing the IOWARN and educating the general public on preparedness efforts of water/wastewater utilities. The Member-only side of the Web site allows access to information such as:

- IOWARN Emergency Notification Form (See **Attachment B: IOWARN Emergency Notification Form**)
- Resource Requests (See **Attachment C: IOWARN Request and Authorization Form** and **Attachment M: AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual**)
- Damage Assessment Reporting

The IOWARN Web site allows a Member utility to identify resources directly and lists the contact information for Member utilities to contact one another to inquire about the availability of resources and request their use. Every six months Member utilities are encouraged to **print out** a hard copy of the database, so that when power or Internet is not available during an emergency, the data is still available. The IOWARN Web site instructions are included in this plan on how to access online information.

The Web site includes contact information for the Steering Committee and the Response Team. Issues or questions during response can be addressed by communicating with Steering Committee or Response Team contacts. Member utilities are encouraged to print out their contact information sheets and keep them with the hard copy of database resources.

## SECTION 8: After Action Report and Improvement Plan

### After Action Report

After an exercise or an incident, all IOWARN Members involved with mutual aid/assistance response are encouraged to meet and complete an After Action Report and consider creating an Improvement Plan. After action reviews and reports are typically carried out by IOWARN Member utilities who assisted in the IOWARN Response Team. It is recommended that all key players and groups involved in the response and recovery provide input. Therefore, if the incident is small and only involves a small number of IOWARN Member utilities, the affected utility may complete the after action report. If the incident is large and involves many agencies and jurisdictions, the IOWARN Response Team Members may coordinate the after action review and report process among all the participants. In this case, the IOWARN Team Leader can ask to participate in the after action review at the state level.

Typically, the designated Member utility holds a debriefing to discuss the overall activities, state of affairs, and lessons learned. The debriefing reviews actions and activities from the response and recovery phases. IOWARN Response Team Members can expect to provide a quick review of activities under their function and describe what went well for them, what did not work well, what steps can be taken to improve the situation, or other lessons learned. This meeting allows for open discussion of opportunities for improvement, actions taken and the decisions they were based on, and potential future improvements.

The designated Member utility collects responses during this meeting and assembles them in an After Action Report that briefly summarizes the actions taken during the response. The After Action Report can include a brief description of the incident, the actions taken, and what needs to change in the future.

The following list of questions addresses key aspects of response. (The list is not all-inclusive.) In summary, the questions focus on what went well, what did not go well, what needs to be improved, or other lessons learned. The following questions are examples of what may be asked as part of an After Action Report:

- Notification
  - What was the number and frequency of notifications?
  - Did the number and frequency provide an accurate operational understanding of the emergency?
- Activation
  - How did activation occur for utilities, IOWARN, and other stakeholders?
  - How quickly did “full” activation occur between stakeholders that responded?
  - How can the activation process be improved or streamlined?
  - Were the different departments (or jurisdictions and agencies) able to activate their plans and processes during this incident?
- Coordination
  - Were Member utilities well-coordinated and matched to assignments according to skill?
  - What can be done in the future to maximize available resources?
  - What went well? Were the goals met?
  - What went wrong and what was done to correct it?
  - What can be improved?
  - Were resources interoperable?
  - Were the resources that were requested the same as the ones that were delivered?

- Were databases used and are they interoperable across different workgroups and jurisdictions?
- Mobilization
  - Was the information gathered from notifications sufficient to accurately organize and prepare for mobilization?
  - How quickly did “full” mobilization occur between stakeholders that responded?
- Operational Support
  - What actually occurred at all levels of participation (timeline)?
  - What were the pre-event plans and processes for preparedness, response, recovery, and mitigation?
  - Did the plans and processes meet the need of jurisdictions and agencies responding to this event?
  - How accurately were resource requests anticipated and fulfilled?
  - How can procedures for pre-staging resources, making and fulfilling resource requests, tracking and reporting on resource status, and recovering resources be improved?
  - How accurately were personnel requests anticipated and fulfilled?
  - What were some success stories?
  - What areas need improvement to facilitate response in the future?
- Demobilization
  - Was a demobilization plan in place before the event? Was it followed?
  - What worked well?
  - What did not work well and were steps taken to address the situation?
  - What can be improved for the future and what options are available?
- Miscellaneous
  - What are some other lessons learned not captured above?

### **Improvement Plan**

The After Action Report, with its assessments and recommendations, serves as the basis for the Improvement Plan, which is sometimes referred to as a Corrective Action Plan. An Improvement Plan includes the broad recommendations for improvements, the agreed-upon corrective actions, a timeline for making the changes, and an assignment of responsibilities to individuals or organizations. Below are elements for an Improvement Plan:

- Measurable corrective actions
- Designated projected start date and completion date
- Corrective actions assigned to an organization and a point of contact within that organization
- Corrective actions continually monitored and reviewed as part of an organizational Corrective Action Program
- An individual can be elected or appointed to manage a Corrective Action Program to resolve corrective actions resulting from exercises, policy discussions and real-world events and support the scheduling and development of subsequent training and exercises

## SECTION 9: Attachments

Attached are supporting documents, checklists, and forms used in response to an emergency.

Attachment A: Requesting Utility Checklist

Attachment B: IOWARN Emergency Notification Form

Attachment C: IOWARN Request and Authorization Form

Attachment D: Cost Estimator Worksheet

Attachment E: Mutual Aid/Assistance Coordinator Checklist

Attachment F: Staging Area Manager Checklist

Attachment G: Daily Briefing Considerations

Attachment H: Responding Utility Checklist

Attachment I: IOWARN Response Team Member Checklist

Attachment J: IOWARN Request Summary Sheet

Attachment K: Activity Log

Attachment L: State Emergency Operations Center/IOWARN Response Coordination Site

Attachment M: *AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual*

**Attachment A: Requesting Utility Checklist**

- Purpose:** The Authorized Representative of a utility that requests mutual aid and assistance is encouraged to use this checklist to track decisions and actions to request mutual aid and assistance. It is used in conjunction with other forms in this IOWARN Operational Plan.
- Instructions:** Review Attachments A, B, C and D together. Complete actions in this checklist. Complete Attachment B and C forms.

## NOTES

- Analyze the situation and determine the best alternatives to address the emergency.
  - Ensure a real need exists. Mutual aid/assistance is designed to augment resources already effectively committed.
- Using the resource types in the AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual, determine resource and personnel needs that cannot be met by your utility that may be available through mutual aid/assistance.
- What non-utility agencies are responding to the emergency: law, fire, public works, state environmental, public health, emergency management, American Red Cross, etc.?
- Determine how significant the emergency is; does it include city, county, state, or federal resources?
- Has a local emergency been declared by the local government? Has the Governor declared an emergency? Has the President declared an emergency?
- Are normal electrical and natural gas services, vehicle fuel, and communications available?
- Complete **Attachment B: IOWARN Emergency Notification Form**, to inform utilities of the impact on your utility.
- Notify the local emergency management agency of your need for mutual aid/assistance.
- Contact neighboring utilities with which your utility has a local mutual aid/assistance agreement. Provide them the completed **Attachment B: IOWARN Emergency Notification Form**.
- If assistance is not available from neighbors, identify other IOWARN Member utilities to determine if they are also affected by the emergency or can provide the mutual aid/assistance. Continue the process until you locate a utility. If the IOWARN Response Team is established, contact the team.

- If you locate a utility that can send aid, discuss the conditions of the utility, what is needed, and initiate **Attachment C: IOWARN Request and Authorization Form**. The Responding Utility estimates costs using **Attachment D: Cost Estimator Worksheet** which will help determine cost estimates required in Attachment C. Attachments C and D are returned to you for final approval of acceptance of the aid.
  - As needed, identify a person at your utility to manage all incoming mutual aid/assistance. The Mutual Aid/Assistance Manager can use **Attachment E: Mutual Aid/Assistance Coordinator Checklist**.
  - Once mutual aid/assistance is deployed, notify the local emergency management authority of the arrangements for incoming resources.
  - Notify local utility unions of incoming mutual aid/assistance and identify the process for assigning work between utility staff and mutual aid/assistance teams.
  - As systems return to near normal, begin to determine when to demobilize mutual aid crews.
  - Demobilization  
Follow standard ICS practices of demobilization, including:
    - On small incidents, the demobilization process may be quite simple, and can be handled by an Authorized Representative
    - On larger incidents, a Response Team Member can be designated to develop a Demobilization Plan
    - Capture personnel evaluations and identify future tactical resource needs
- If a formal Demobilization Plan is indicated, ensure that it includes the following five sections:
- General Information
  - Responsibilities
  - Release Priorities
  - Release Procedures
  - Directory (maps, phone listings, etc.)
- While preparing to demobilize the Requesting Utility needs to:
- Collect damage and response cost figures
  - Accept bill(s) from Responding Utilities
  - Provide payment, according to the IOWARN Agreement
  - As appropriate, submit for FEMA or other reimbursement mechanisms
- Post demobilization:
    - Collect names of mutual aid/assistance teams and supervisors
    - Send letters of thanks
    - Request input for After Action Report

- Send copies of After Action Report

**Attachment B: IOWARN Emergency Notification Form**

**Purpose:** The Authorized Representative needs to provide written information regarding the emergency, level of impact, and conditions. This form does not replace damage assessment forms required by other organizations.

**Instructions:** Complete form by checking boxes or circling where appropriate. Provide level of detail available. Complete Section 1 of Attachment C and forward both Attachment B and C to city/county and/or IOWARN Utility Member.

Water System Status Report			
INCIDENT		REPORT #:	
Date/Time:			
Utility Name:			
City and County:		General Phone Number:	
Contact:			
E-mail:		Cell Number:	Fax:
General Location of Emergency:			
Has Utility EOC been activated:		Yes	No
			Unsure
Declaration of Local Emergency:		Yes	No
			Unsure
<b>Critical Issues</b> (and actions taken):  Note if untreated water is affected.	<input type="checkbox"/> Pipes _____		
	<input type="checkbox"/> Pump Stations _____		
	<input type="checkbox"/> Reservoirs/Tanks _____		
	<input type="checkbox"/> Wells _____		
	<input type="checkbox"/> Connection(s) Status/Flow change request(s) _____		
	<input type="checkbox"/> Power/Communications _____		
<input type="checkbox"/> Chemical _____			
<b>Water Quality</b>	Contamination: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Undetermined		
	Water Quality Order: <input type="checkbox"/> Boil Order <input type="checkbox"/> Do Not Drink <input type="checkbox"/> Do Not Use		
	Order Issued by: _____ Est Lift Order: _____		
<b>Status Detail</b>		<b>Status</b>	<b>Remarks/Comments</b>
Percentage of potable water system inoperable:		%	
Anticipated duration of outage: (hours/days)			
Number of jurisdictions affected:		#	
Number of people affected:		#	
Mutual aid received in last 24 hours:		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Mutual aid needed in next 24 hours:		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Actions taken by Utility:			
Actions taken by Coordinating Partners:			
Form Completed By:			
Name:		Title:	
Signature:			
Phone Number:		Cell Phone:	
Additional Notes:			

Wastewater System Status Report		
INCIDENT		REPORT #:
Date/Time:		
Utility Name:		
City and County:		General Phone Number:
Contact:		
E-mail:		Cell Number: Fax:
General Location of Emergency:		
Has Utility EOC been activated:		Yes No Unsure
Declaration of Local Emergency:		Yes No Unsure
<b>Critical Issues</b> (and actions taken):	<input type="checkbox"/> Pipes _____	
	<input type="checkbox"/> Lift Stations _____	
	<input type="checkbox"/> Outfall _____	
	<input type="checkbox"/> Chemical Status _____	
	<input type="checkbox"/> Power/Communications _____	
<input type="checkbox"/> Other _____		
<b>Treatment Status</b>	<input type="checkbox"/> Operational <input type="checkbox"/> Non-Operational	
	<input type="checkbox"/> Release of Untreated Wastewater Amount: _____	
	<input type="checkbox"/> Has Untreated Wastewater reached a water way: _____	
	Comments: _____	
Status Detail	Status	Remarks/Comments
Percentage of wastewater system inoperable:	%	
Anticipated duration of outage: (hours/days)		
Number of jurisdictions affected:	#	
Number of people affected:	#	
Mutual aid received in last 24 hours:	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Mutual aid needed in next 24 hours:	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Actions taken by Utility:		
Actions taken by Coordinating Partners:		
Form Completed By:		
Name:		Title:
Signature:		
Phone Number:		Cell Phone:
Additional Notes:		

**Attachment C: IOWARN Request and Authorization Form**

**Purpose:** Authorized Representative of both the Requesting and Responding Utility Member can track approved cost associated with sending/receiving mutual aid and authorizing deployment and reception of the assistance. This form is used with Attachment B when a Responding Utility is located and agrees it has resources to send.

**Instructions:** Requesting Utility fills out Part I of this form completely. Attaches it to completed Attachment B and forwards it to the Responding Utility who completes Part II. The Responding Utility can use Attachment D as a worksheet to determine the cost estimates requested on this form. The form is returned to the Requesting Utility to authorize acceptance of the aid and negotiated cost identified by the Responding Utility. Once the Requesting Utility completes Part III, a copy is returned to the Responding Utility for record keeping. A copy is also sent to the IOWARN Response Team for completing their documentation and notation in Part IV.

Part I TO BE COMPLETED BY THE REQUESTING UTILITY				
Dated:		Time:                    hrs		From the County of:
Contact Person:			Telephone:	Fax:
IOWARN Member Utility:			Authorized Rep:	
Type of Emergency & Impact to Utility:				
Personnel, Expertise, Equipment & Material Needed (Follow terminology in AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual):				
Preferred Resources Requested (Follow resource types in AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual):				
Single Resource	Team	Kind	Type	Description
Date & Time Resources Needed:			Staging Area:	
Approximate Date/Time Resources To Be Released:				
Requesting Authorized Rep:			Req. Authorized Rep's Signature:	
Title:		Utility:		Request No:
Part II TO BE COMPLETED BY THE RESPONDING UTILITY				
Contact Person:			Telephone:	Fax:
Type of Personnel, Expertise, Equipment & Material Available (Follow terminology in AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual)				
Preferred Resources Deployed (Follow resource types in AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual):				
Single Resource	Team	Kind	Type	Description

Date & Time Resources Available From:		To:	
Staging Area Location:			
Estimated Total Costs To Send Requested Assistance:    \$			
Trans. Costs from Home Utility to Staging Area:    \$		Trans. Costs to Return to Home Utility :    \$	
Care, Shelter, Feeding Costs Required For Response:    \$			
Responding Authorized Rep:		Res. Authorized Rep's Signature:	
Title:		Utility:	
Dated:	Time:            hrs	Request No:	
<b>Part III REQUESTING UTILITY CONFIRMATION AND APPROVAL</b>			
Authorized Rep Name:		Location:	
Signature			
Dated:	Time:            hrs	Request No:	
<b>Part IV IOWARN COORDINATION (as needed)</b>			
IOWARN Rep:		Location:	
Signature			
Dated:	Time:            hrs	Request No:	
<b>Additional Information:</b>			
<b>MISCELLANEOUS ITEMS / OTHER INFORMATION</b>			

**Attachment D: Cost Estimator Worksheet**

**Purpose:** The Authorized Representative of a Responding Utility uses this form to determine costs associated with sending mutual aid/assistance.

**Instructions:** Identify costs associated with deploying assistance. Complete information requested by this form, which can be used in Microsoft Excel.

1. TEAM/PERSONNEL/EQUIPMENT Requested <sup>1</sup> :										
Personnel (insert lines above subtotal as needed)	Position(s)	Reg Salary Hourly Rate	Fringe Benefit Hourly Rate	# of Reg Hours Worked per Day	Overtime Salary Hourly Rate	Fringe Benefit Overtime Hourly Rate	# of OT Hours Worked per Day <sup>2</sup>	# of Days on Mission	Total Daily Cost	Total Mission Cost
							12		\$0.00	\$0.00
							12		\$0.00	\$0.00
							12		\$0.00	\$0.00
							12		\$0.00	\$0.00
							12		\$0.00	\$0.00
							12		\$0.00	\$0.00
							12		\$0.00	\$0.00
							12		\$0.00	\$0.00
							12		\$0.00	\$0.00
<b>Subtotal:</b>									<b>\$0.00</b>	<b>\$0.00</b>
Equipment (insert lines above subtotal as needed)	Item	Hourly Rate <sup>3</sup>	No. of Hours	Total	Notes:					
				\$0.00						
				\$0.00						
				\$0.00						
<b>Subtotal:</b>				<b>\$0.00</b>						
Commodities/Materials (insert lines above subtotal as needed)	Item	Unit Cost	Quantity	Total						
				\$0.00						

needed)				\$0.00						
				\$0.00						
				\$0.00						
				\$0.00						
<b>Subtotal:</b>				<b>\$0.00</b>						
<b>Other Costs<sup>4</sup></b>	<b>Item</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Total</b>						
(insert lines above subtotal as				\$0.00						
needed)				\$0.00						
				\$0.00						
<b>Subtotal:</b>				<b>\$0.00</b>						
<b>2. TRAVEL</b>	<b>Units</b>	<b>Description</b>		<b>Total</b>						
Lodging	\$/person/night									
Food	\$/day/person									
Personal Vehicle	# x miles x 0.0488/mile									
Government Vehicle	# x miles x 0.0488/mile <sup>5</sup>									
Rental Vehicle	daily/weekly rate as applicable x duration									
Air Travel	\$/person/roundtrip									
Other Travel	as necessary									
<b>Subtotal:</b>				<b>\$0.00</b>						
<b>3. TOTAL EXPECTED DEPLOYMENT COST:</b>				<b>\$0.00</b>						
Footnotes:										
<sup>1</sup> From requestor, may be more than one and of different kind/type										
<sup>2</sup> Assumes a 12-hour work day										
<sup>3</sup> Use FEMA rates if unknown										

<sup>4</sup> <b>Items to Consider:</b> Fuel for equipment, O&M for equipment									
<sup>5</sup> <b>Consult the Internal Revenue Service for latest federal government reimbursement rate</b>									

**Attachment E: Mutual Aid/Assistance Coordinator Checklist**

**Purpose:** Authorized Representative of both Requesting and Responding Member utility or staff appointed to coordinate incoming mutual aid/assistance resources use this checklist to ensure mutual aid/assistance resources are prepared for deployment.

**Instructions:** Review this checklist as ongoing discussion between Requesting and Responding Utility occurs. Put notes in the right-hand column.

NOTES

**Staging Area**

- Identify a location outside the immediate impact area to serve as a Staging Area.
  - What is the address of the Staging Area?
  - What is the Staging Area Manager’s Name?
  - What is the Staging Area Manager’s Contact Information?
  - What services will be available at the Staging Area?
    - ◇ Are supplies and personnel available to repair heavy or light equipment?
    - ◇ Does Responding Utility need to bring a mechanic, tools, equipment and supplies?
    - ◇ Are tire repair services available?
    - ◇ If not available, are commercial services available?
    - ◇ Are fuel services available (gasoline and diesel)?

**Transportation Impacts**

- From the Requesting Utility gather responses to the questions in the top row in each of the following areas.

	Which interstates or highways are open nearby each area?	Does debris hinder access near or to each area?	Which train or rail systems are operational nearby each area?	Which airports are operational?
Staging Areas				
Utility Service Yards				
General Work Areas				
Lodging / Hotel Areas				
Shelter Facilities				
Feeding Operations Sites				
Restaurants and Stores				

**Communications Impacts**

- From the Requesting Utility gather responses to the questions in each of the following areas.

	Are landline telephone systems operational?	Are cell phone systems operational?	Are satellite phone systems operational?	Are utility radio systems operational?	Is the Internet operational?
Staging Areas					
Utility Service Yards					
General Work Areas					
Lodging / Hotel Areas					
Shelter Facilities					
Feeding Operations Sites					
Restaurants and Stores					

**Utility Impacts**

- From the Requesting Utility gather information on how utility outages are affecting each of the following areas.

	Electrical outages	Natural gas outages	Potable water outages	Wastewater outages
Staging Areas				
Utility Corp Yards				
General Work Areas				
Lodging / Hotel Areas				
Shelter Facilities				
Feeding Operations Sites				
Restaurants and Stores				

**Field Response Operations**

- Have curfews or other conditions been enforced by local government that might affect movement to and from worksites, feeding locations, and lodging?
- Identify additional communications operability:
  - Does Requesting Utility have satellite phones to provide Responding Utility?

- Does Requesting Utility have local portable cell phone systems (temporary, mobile cellular systems)?
- If operational, how does the utility communication system function?
  - ◇ What frequency does the Requesting Utility operate on?
  - ◇ Will Requesting Utility provide their radios to Responding Utility?
  - ◇ If yes, are radios available at the Staging Area?
  - ◇ If there are not enough radios to give to all Responding Utility staff, are there enough radios to give to the Responding Utility supervisors?
  - ◇ Does Requesting Utility use amateur radio equipment for emergencies? If yes, is equipment available?
- What navigation issues should the Responding Utility be aware of?
  - Are street signs in place?
  - Are utility maps available (hardcopy or electronic)?
  - Do utility maps include GPS coordinates?
  - Are GPS units available?
  - Are maps and/or GPS units going to be available at the Staging Area?
  - Are interstates and highways open?
- What sanitation services are available in the field?
  - Water for drinking
  - Water for sanitation
  - Restroom (e.g. using port-a-potties)
- What debris clearance equipment is needed?
  - Are chainsaws required to provide response and repairs?
  - Is other debris clearance equipment or tools required?
- Identify financial services capabilities:
  - Are ATMs functional?
  - Are credit cards being accepted locally?
  - Are banks open?
  - Is cash the only source of payment? If yes, what is recommended amount of cash to bring?
  - Are coins needed for laundry or other services?

### **Care and Shelter**

- What accommodations are available?
  - Hotels
  - Fire Base Camp
  - County/State Sponsored Base Camp
  - Utility Temporary Shelter
  - Outside Agency Housing
    - ◇ If yes, what is the name of the agency (e.g. American Red Cross, faith-based organization, etc.)
  - None - Responding Utility must be self-sufficient.

- How are arrangements being addressed?:
  - Who is arranging for rooms? Requesting or Responding Utility?
  - Who is paying for rooms? Requesting or Responding Utility?
  - How far are the arrangements from the staging area?
  - How far are the arrangements from the work area?
  - Where is it located (address):
  
- What amenities are available at the available sites?

	Hotel	Incident Base Camp	County or State Base Camp	Utility Temporary Shelter	Red Cross or other Shelter	Campgrounds
How far from work areas?						
Has feeding operations available on site?						
Has potable water for drinking?						
Has water for bathing?						
Has water for sanitation?						
Has operating restrooms?						
Requires use of portable toilets?						
Has operating showers?						
Has beds or cots?						
Has bedding?						
Has a functional laundry facility?						
Has a functional laundry facility nearby?						
Has or allows portable emergency generator power?						
Fuel (or diesel) is available nearby for generators?						
Nearby campgrounds have water and sewer hook ups?						

- Determine feeding operations.
  - Are restaurants available in or around the work area or lodging area?
    - ◇ How far do the responders need to travel?
    - ◇ Who is paying for the meals when ordered? Responding or

### Requesting Utility?

- Does Requesting Utility have alternate feeding operations in place?
  - ◇ Mobile canteen
  - ◇ Services from American Red Cross or faith-based organization (if so, specify who)
  - ◇ Contract services
- Are grocery stores open?
  - ◇ If yes, how far are grocery stores from work site or lodging?
  - ◇ Is rationing in place?
  - ◇ Are grocery stores limited in stock?
- If grocery stores are available, what support services are available?
  - ◇ Cooking facilities with functional utilities?
  - ◇ Refrigeration systems local to work site, staging area, or lodging?
  - ◇ Ice deliveries in operation or available?

### **Employee Safety Measures**

- What is the expected temperature and humidity?
  - Is special weather gear required?
- What personal protective equipment is needed beyond basic equipment (hard hat, safety vest, safety shoes, mud boots, work gloves, raingear and eye and ear protection)?
- What additional exposures may responders encounter (e.g. significant odors, contamination, etc.)?
- What personal inoculations should be considered?
  - Tetanus
  - Hepatitis A or B
  - Flu
  - Other \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- Are hospitals functional?
- Are paramedic and/or ambulance services functional?
- How significant is the disaster to the public?
  - Significant damage due to incident (e.g. many homes destroyed, off foundations, etc.)?
  - Significant emotional impact due to loss of life or suffering?
  - What is chance of finding deceased humans?
  - What is chance of finding significant numbers of dead livestock or

pets?

- Are trained incident stress debriefing teams available?

**Documentation**

- Requesting Utility has electronic or hard copy means of tracking employee hours, materials used, and other documentation?
- Requesting Utility has means to accept digital photography for documentation?
- Requesting Utility optimizes use of ICS forms and documentation?
- Requesting Utility has method to track costs for FEMA reimbursement?

**Reimbursement Process**

- Request Cost Estimate of responding resources prior to approving their deployment. (See **Attachment D** for details.)
- Approve or disapprove costs prior to requesting deployment.
- Identify means for managing injury claims.

---

**Sign Off:**

Name of Person Completing Checklist: \_\_\_\_\_

Title of Person Completing Checklist: \_\_\_\_\_

Date/Time: \_\_\_\_\_

**Attachment F: Staging Area Manager Checklist**

**Purpose:** Personnel assigned to coordinate the arrival of mutual aid/assistance at a remote location near the event needs to track actions to support mutual aid/assistance.

**Instructions:** Complete actions in this checklist. Complete Attachment H and I as needed.

NOTES

**General Duties**

- Establish Staging Area layout.
- Draw a map of the area; consider using spray paint to mark areas.
- Establish Check-In function for personnel in coordination with the EOC.
- Establish Check-In function for supplies and resources in coordination with the EOC.
- Identify resources that may be needed to initiate, sustain, and demobilize the efforts required during an emergency operation.
- Dispatch resources at the Operations Section Chief's request.
- Maintain records of all resources entering, deployed to, and demobilized from the staging area.
- Coordinate with the Logistics Section for temporary feeding, fueling, and sanitation services as needed to support the Staging Area.
- Provide for the mechanical, technical, and maintenance needs of the resources requested or required.
- Respond to requests for resource assignments.
- Ensure the safety of personnel and equipment in the staging area.
- Obtain and issue radios and other supplies as required.
- Provide the EOC with status information of personnel, equipment, and supplies in the Staging Area.
- Provide for the orderly demobilization of resources as the incident command structure is dissolved.

**READ ENTIRE CHECKLIST AT START-UP AND  
AT BEGINNING OF EACH SHIFT**

**Checklist Actions**

**Start-Up Actions**

- Determine any immediate unmet needs and/or outstanding resource requests for staging.
- Proceed to Staging Area.
- Post areas for identification and traffic control.
- Establish check-in procedure/forms for arriving resources, keep all receipts.
- Set up communications between the EOC and the staging area(s).
- Staff staging areas with additional personnel to load, unload, stock, deliver, and distribute supplies and keep pertinent records.
- Obtain and issue radios and other supplies needed for staging area operations as needed.
- Request personnel through the EOC.
- Determine any support needs for equipment, feeding, sanitation, and security. Request maintenance service for equipment at Staging Area as appropriate.
- Keep a log of items requested and check to see that they have been ordered, sent, received, and distributed to the requesting individual. (This MUST be done continually to ensure that requests are filled as expeditiously as possible).
- Respond to request for resource assignments.
- Dispatch resources as requested.
- Notify the individual that requested the item of the status of the resource request:
  - Date and time of delivery of goods and material.
  - Delivery site.
  - Type and quantity of goods and material to be delivered as well as any items that are not available.
- Obtain and issue receipts for radio equipment and other supplies distributed

and received at Staging Area.

- Frequently determine required resource levels from the Operations Section Chief.
- Advise the Operations Section Chief when reserve levels reach minimums.
- Maintain and provide status to Resource Unit of all resources in Staging Area.
- Maintain Staging Area in safe and orderly condition.
- Ensure all personnel time and costs are tracked for reimbursement.
- Document:
  - Messages received
  - Action taken using **Attachment K: Activity Log**
  - Decision justification and documentation
  - Requests filled

### **Deactivation**

- Deactivate Staging Area Manager and staging area(s) when no longer required.
- Provide for the orderly demobilization of resources as the incident command structure is dissolved.
- Ensure any unfinished business is completed before leaving or passed on to Logistics.
- Ensure any required forms or reports are completed prior to your release and departure.
- Be prepared to provide input to the After-Action Report.
- Deactivate your section and close out logs when authorized by Logistics.
- Demobilize Staging Area in accordance with Incident Demobilization Plan.
- As necessary, give the EOC Manager a forwarding phone number where you can be reached.

**Attachment G: Daily Briefing Considerations**

**Purpose:** Field Supervisors utilize this list as a starting list of considerations for Daily Staff briefings with mutual aid/assistance responding teams.

**Instructions:** Complete actions in this checklist.

NOTES

- Provide schedule of briefings for daily work assignments.
- Provide a status report on current conditions, status of systems and repairs, as well as any other event-specific updates.
- Provide information or resources to establish communication between the supervisor of incoming teams and supervisor of your utility.
- Provide system maps and work assignments.
- Explain current field conditions and safety requirements.
- Review key standards your utility uses for pipe repairs, fittings, and distribution methods.
- Identify critical equipment that may need to be used to complete the repairs.
- Identify locations and purchasing procedures for fuel, supplies, and parts.
- Where are contaminated soil(s) to be placed or relocated?
- Provide necessary forms required for documentation.
  - Work Hours/Overtime
  - Materials/Resources Expensed
  - Worksite Repair Information
- Review work hours, breaks, and respite facilities available in the field.
- Review where emergency medical attention can be received and reporting procedures for injuries.

**Attachment H: Responding Utility Checklist**

**Purpose:** The Authorized Representative of a Responding Utility may track actions to deploy mutual aid/assistance.

**Instructions:** Complete actions in this checklist and make notes in right-hand column.

NOTES

- **If notified of emergency prior to a request for assistance, contact the IOWARN Response Team if activated to inform them of availability.**
  
- **When a request for aid/assistance arrives, assess request.**
  - Review types of damage and what teams may be expected to deal with (size/type of pipe repairs, etc.). (See **Attachment B.**)
    - ◇ Nature of the emergency
    - ◇ Impact on the utility
    - ◇ Has an emergency been declared by local government?
    - ◇ Have curfews or other conditions been enforced by local government that might affect movement to and from worksites, feeding locations, and lodging?
    - ◇ Determine resource type requirements, evaluate the following needs to select the appropriate resource typing team in the AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual:
      - Desirable personnel skills and certification
      - Resource type and capability
      - Determine appropriate materials to accompany the teams
    - ◇ Estimate length of time aid/assistance is required
    - ◇ Determine method of care and shelter for personnel and resources
      - Review **Attachment E: Mutual Aid/Assistance Coordinator Checklist** with Requesting Utility
    - ◇ Confirm billing rates for use of personnel and equipment
  - Review types of resources needed, materials needed, number of teams needed, and skills required.

- ◇ Identify equipment operation qualification requirements:
  - Security and storage of service vehicles and equipment
  - Identify reporting location
  - Identify Point of Contact at the location
  - Identify designated supervision methodology
  - Responsibility for equipment security
  - Procedures for returning equipment to Requesting Utility
  - Equipment transfer, inspection, and contact information
  - Licensing requirements for transport
  - Transportation and other equipment's fuel considerations
  - Managing lost, damaged, destroyed, or stolen equipment
- How long are teams needed? Is there need for "relief" teams for first set of teams?
- How does sending teams affect your utility current operations?
- **Review reimbursement expectations and process.**
- **Prepare documentation on the costs associated with sending the assistance, and submit it to the Requesting Utility. (See Attachment D.)**
  - Be clear on how teams would be sheltered and fed. Identify any risk associated with shelter or feeding.
  - Notify elected officials.
- **Review request to determine what aid/assistance the Responding Utility can provide. Confirm approval from utility management to provide aid/assistance.**
- **Complete pre-deployment personnel activities.**

- Identify an Incident Commander in charge of the deployment team. Appoint General Staff (Operations, Planning, Logistics and Finance) to manage the deployment of the team. (Upon arrival at the destination utility, report to the Staging Area as the Utility Representative. The deployment team Incident Commander may be reassigned as a unit supervisor within the operations section.)
- Identify how teams are selected. Identify specialized work rules. Review with any union leadership.
- Identify a communications plan for teams. How do they communicate with each other, the borrowing agency, and family?
- Identify teams for travel.
- Conduct review with teams. Review:
  - ◇ Level of disaster and impact on community to prepare teams emotionally
  - ◇ Conditions and potential for contamination and personal protective equipment needs
  - ◇ Logistics arrangement for care, shelter, feeding, etc.
  - ◇ Communication plan
  - ◇ Employee work rules
  - ◇ Medical considerations and needs for inoculation
  - ◇ Incident Command System (ICS)
  - ◇ Documentation protocols
- **Prepare resources for deployment:**
  - Inspect vehicles for travel and equipment use.
  - Inventory and standardize stock of equipment and supplies on vehicles.
  - Send a mechanic with teams and equipment.
  - Ensure emergency food and water is present on all vehicles.
  - Ensure availability of first aid kits and other emergency supplies.
- **While teams are away:**
  - Check daily with supervisor.

- Review costs associated with assistance.
- Review the number of hours each team is working. How long will work last?
- Identify problems with lodging or feeding.
- Provide daily summary of events to the General Manager.
- **While preparing to demobilize, the Responding Utility is responsible to:**
  - Deliver documentation collected during response to the Requesting Utility
  - Return all resources to the Requesting Utility that the Responding Utility may have in their possession
  - Return any sensitive or confidential information to the Requesting Utility
  - Collect all information on expenses and process it through the Requesting Utility finance and administration staff. Information includes:
    - ◇ Injury reports (if applicable)
    - ◇ Timesheets
    - ◇ Material purchases
    - ◇ Resource usage
  - Submit bills for services as appropriate, according to the IOWARN Agreement
- **Upon return:**
  - Hold debriefing with the supervisors within seven days.
  - Hold debriefing with all teams within 14 days. Include General Manager or other appropriate staff.
    - ◇ Identify lessons learned.
    - ◇ Identify problems and successes.
    - ◇ Review hours worked and efforts made.
    - ◇ Provide feedback to requesting agency.
    - ◇ Review ideas to improve own readiness.
- **Within 60 days:**
  - Prepare a report of events to present to the General Manager.
  - Submit bill for personnel and other costs for mutual aid/assistance response.

**Attachment I: IOWARN Response Team Member Checklist**

**Purpose:** Trained Utility Members staff who will act as part of the IOWARN Response Team use this checklist to track actions and operate as a IOWARN Response Team.

**Instructions:** Complete actions in this checklist. Arrive at IOWARN Response Team location.

NOTES

- Once notified of need to activate the IOWARN Response Team, make travel arrangements to the designated utility coordination site;
- Make lodging arrangements (see Appendix N for nearby locations);
- Bring all necessary personal items with you for the period of time requested; and
- Follow directions to get to the designated location provided in Appendix N.

Once you have reached the utility coordination center, complete the following:

**Startup activities**

- Sign in and identify self at security point check in;
- Check in with the IOWARN Leader to receive an initial briefing on the general situation and immediate tasks to be performed. Briefing should:
  - Detail nature and extent of emergency;
  - Identify extent of affected utilities and status;
  - Describe nature of assignment;
  - Provide status report update and criteria; and
  - Identify contact person to receive the information.
- Review any posted information and Incident Briefing ICS Forms 200, 201 and 202 for critical contact information;
- Review or open and maintain an Activity Log (see **Attachment K**). At a minimum, the Activity Log should record the following for each utility contacted:
  - Date and time;
  - Contact name and number;
  - Communications/coordination received/made; and
  - Follow-up required/completed.

**Communications recorded should include conversations in which decisions were reached, instructions given or received,**

**and vital information exchanged.**

- Contact utilities in affected areas to determine situation and any assistance that may be required;
- Alert the IOWARN Leader of emerging issues or concerns you perceive as “sensitive”;
- Keep all related status boards up-to-date;
- Coordinate with the IOWARN Leader regarding your shift commitment and assist in identifying Utility Representatives to relieve you at the end of your shift;
- Provide comprehensive shift turnover briefing; and
- As questions arise, contact the IOWARN Leader for direction.

**General activities**

Support the IOWARN Leader by providing specific utility knowledge and sector representation by doing the following activities:

- Provide regular updates to the IOWARN Leader with significant changes in utilities’ status;
- Contact and receive calls from utilities in affected areas of the emergency regarding damages to services/infrastructure;
- Determine utility-specific resource and/or information needs;
- Maintain logs, Status Boards, and prepare Status Reports;
- Identify:
  - extent and type of customer and infrastructure damage;
  - general geographic location of utility outages;
  - expected duration of outages;
  - numbers of customers affected by county; and
  - resource requirements and/or information needs.

- Assist utilities in procuring resources, personnel, and provisions necessary for restoration of services;
- Communicate utility damage information and restoration priorities between government agencies and utilities, as necessary;
- Ensure regular updates to the IOWARN Leader on restoration concerns;
- Assist with inter-utility response coordination;
- Facilitate utility mutual aid/assistance as necessary/requested;
- Serve as liaison between utilities and emergency management for extraordinary assistance;
- Through the IOWARN Leader, provide utility Status Reports and special needs requests as indicated; and
- Perform additional duties to support the utility sector as requested by the IOWARN Leader.

**Shift briefings should occur between the outgoing and incoming representatives and at a minimum include the following:**

- Alerts to any safety related issues that could impact utility personnel;
- A review of the Activity Log with particular emphasis given to the follow-up columns;
- Immediate tasks to be performed that have either been assigned by the IOWARN Leader or required by the follow-up information on the Activity Log;
- A review of the current Utilities Outage and Restoration Status Report; and
- A review of special key contact names and numbers outside of the IOWARN contact database developed during event communications.

**Mutual Aid / Assistance Request**

If mutual aid/assistance is needed, record the following:

- Name and contact information of utility representative;
- Utility name and type;
- Specific resource personnel/resources need;
- Specify required certification or specification;
- Date/time needed;
- Impact if delayed;
- Delivery point of resource;
- Logistical arrangements for any incoming personnel;
- Access routes into the affected area(s);
- Estimated duration of operations; and
- Risks and hazards.

**Stand Down Activities**

- Under direction of the IOWARN Leader to “stand down,” prepare a situation status report about the utilities you represent, including estimated outages, restoration and damages;
- Provide briefing to the IOWARN Leader;
- Remain available by phone to respond if activation staffing is increased; and
- Sign out.

**Shut Down Activities**

- Under direction of the IOWARN Leader to “shutdown,” return all non-expendable items and identify items that need to be replaced;
- Complete reports. Provide briefing on completed items and identify follow up items;
- Assist in returning all equipment to storage location;
- Sign out; and
- Be available to participate in After Action Report Reviews.



**Attachment K: Activity Log**

**Purpose:** IOWARN Response Team members use this form this form (adapted from ICS 214) to track actions to request mutual aid/assistance. All Member utilities are encouraged to do the same.

**Instructions:** After reviewing the appropriate checklist for the task you are completing, complete boxes 1 – 3 with requested information. Put your response title in box 4. In box 5, note who you report to. In box 6, note what response time you are operating in. In box 7, note the personnel that are assigned to you, the position they fill and the utility from which they come (if different from yours). In box 8, track major activity you complete according to time of day using 24 hour clock. Put your name and title in box 9, once form is complete.

<b>IOWARN Coordination Activity Log</b>		1. Incident Name	2. Date Prepared	3. Time Prepared
4. Unit Name/Designators		5. Unit Leader (Name and Position)		6. Operational Period
7. Personnel Roster Assigned				
Name		Response Team Position		Home Utility
8. Activity Log				
Time		Major Activity		
9. Prepared by (Name and Position)				

All Times – Local 24 Hour Clock

**Attachment L: State Emergency Operations Center/IOWARN Response Coordination Site**

**Purpose:** IOWARN Response Team Members if activated, need to know where to report at the county, state region, or state operations center. The following sample can be modified by each IOWARN.

**Instructions:** Use the following information to locate housing and feeding locations during your re-location to the pre-designated site as part of the IOWARN Response Team if activated.

<b>Pre-designated site</b>
Name of site:
Closest Airport:
Address:
Phone Number:
Fax:
Driving directions:
Map:
<b>Local Hotels Addresses and Phone Number</b>
Name:
Phone Number:
Address:
Name:
Phone Number:
Address:
Name:
Phone Number:
Address:
Name:
Phone Number:
Address:
<b>Local Restaurants and Eateries:</b>
Name:
Address:
<b>Additional Information:</b>
<b>MISCELLANEOUS ITEMS / OTHER INFORMATION</b>



***Attachment M: AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual***

Insert a copy of the *AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual* here.