ORWARN
Mutual Aid/Assistance Operational Plan

Record of Changes Form

Changes to this document are expected due to lessons learned, updates to protocols, and/or modification to the ORWARN Agreement. Designated authors follow these procedures when making updates/changes to this Operational Plan:

1. Record updates/changes on the log below. (Add new pages as needed.)

2. The ORWARN Steering Committee approves updates to this Operational Plan and electronically advises all Member utilities and Associate Members when approved updates have been made and are available on the ORWARN Web site at www.ORWARN.org.

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 Member utilities replace old pages with current pages and destroy outdated material.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				
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9/27/2011

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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

MAAOP
Mutual Aid/Assistance Operational Plan

NIMS
National Incident Management System

NRF
National Response Framework

ORWARN
Oregon Water/Wastewater Agency Response Network

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

List of Definitions from the Mutual Aid/Assistance Agreement

All definitions in the Operational Plan are consistent with the Sample Omnibus Water Wastewater Mutual Aid and Assistance 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 ORWARN Board, that provides a support role for the ORWARN program

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

Confidential Information
Any document shared with any signatory to the ORWARN 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 mutual aid/assistance program 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 the mutual aid/assistance program by executing the Agreement.

Mutual Aid
Mutual aid is the sending and receiving of personnel, equipment, and resources without the expectation of reimbursement. The 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 Agreement.

Non-Responding Member
A Member that does not provide assistance during a period of assistance under the mutual aid/assistance program.

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 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 the mutual aid/assistance program.

Responding Member
A Member that responds to a request for assistance under the mutual aid/assistance program.

National Incident Management System (NIMS)
A national, standardized approach to incident management and response that sets uniform processes and procedures for emergency response operations.

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Introduction

Mutual aid and assistance agreements such as the Oregon Water/Wastewater Agency Response Network (ORWARN) help local jurisdictions respond to incidents that require resources beyond the capability of a local utility. The ORWARN 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 an ORWARN Mutual Aid/Assistance Operational Plan.

While the ORWARN Agreement is the legal instrument authorizing the exchange of resources, the ORWARN Mutual Aid/Assistance Operational Plan describes how to implement the Agreement. The ORWARN Mutual Aid/Assistance Operational Plan is the operational extension of the Agreement and outlines the procedures that need to be in place to make the ORWARN Agreement work. Other documents such as the FEMA Resource Typing and American Water Works Association (AWWA) Water & Wastewater Mutual Aid & Assistance Resource Typing Manual identify the type of teams and associated equipment that utilities may request to respond[1]. All of these documents (the ORWARN agreement, Operational Plan, FEMA Resource Typing and AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual) inter-relate and support the mission to address local emergencies. As a result, other job aids may be developed to help direct the implementation of the Operational Plan.

Figure 1 shows how Member utilities activate the Agreement by following the Operational Plan and illustrates that Resource Typing is integral to requesting Mutual Aid/Assistance. Exercising the Operational Plan, Resource Typing, and other job aids ensure the functionality of the ORWARN system.
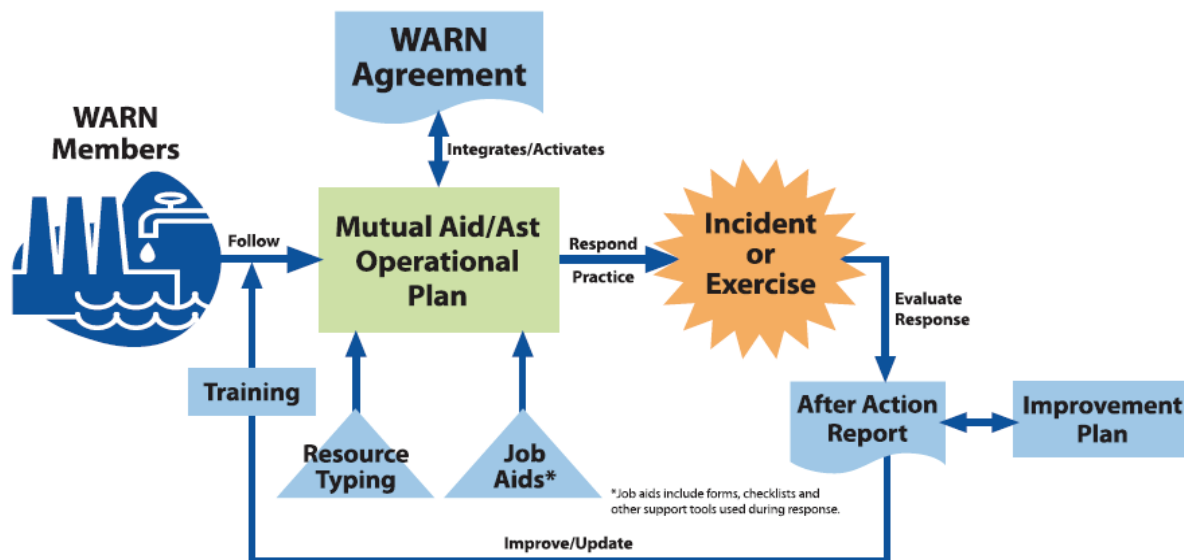
Figure 1: Member utilities follow the ORWARN Operational Plan to activate the ORWARN Agreement

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[1] 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.nationalORWARN.org.

The ORWARN Operational Plan describes how mutual aid/assistance for the water and wastewater sector may evolve. ORWARN membership includes utility Members who have signed the Mutual Aid Agreement. State drinking water primacy agency, state wastewater permitting authority, emergency management agencies, water and wastewater sector associations, and other interested associations, businesses, and individuals are associate Members. The ORWARN Board is responsible to share with and educate utility and associate Members on how to use the current or updated Operational Plan. It is the utility and associate Member's responsibility to integrate this Operational Plan into their respective emergency response or emergency operations plans. Descriptions of this Operational Plan and current and recommended training do not replace other regulated trainings, such as that required for hazardous materials response.

What is the Purpose of an ORWARN Mutual Aid/Assistance Operational Plan?

The ORWARN Mutual Aid/Assistance Operational Plan is designed to be an instructional guide describing the use of the ORWARN 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 a coordination tool within the emergency management system and specialized water and wastewater sector resources. The ORWARN Operational Plan facilitates the integration of Member utilities before, during, and after an incident, including those actions that occur prior to a formal emergency declaration. The ORWARN Operational Plan describes how to sustain operations throughout the emergency and into recovery. Specifically, the ORWARN Operational Plan:

- Describes pre-emergency responsibilities
- Describes training, exercises, and update procedures for the Operational Plan
- Provides a concept of emergency operations
- Provides a general set of procedures for activation of the ORWARN
- Provides a general set of procedures for mobilization of ORWARN Member utilities
- Provides a general set of procedures for ORWARN response coordination
- Describes documentation and forms for the ORWARN standard reporting formats
- Describes communications tools for ORWARN Member utilities
- Describes a general set of procedures for writing an after action report and improvement plan

A secondary purpose of the Operational Plan is to know, understand, and use the AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual and FEMA Resource Typing.

How is the ORWARN Operational Plan Organized?

The ORWARN Operational Plan is divided into eight sections and supporting attachments. The content and use of each are summarized in Table 1. Notably, Sections 4, 5, 6 and 7 (the shaded sections in the table) provide instructions for the ORWARN Member utilities during an emergency.

Table 1. Content and Purpose by Section

Section	Content	For use by:	When it is used:
1.	ORWARN Pre-emergency Responsibilities and Structure	Staff responsible for administrative and preparedness activities	Pre-emergency
2.	Training, Exercise, and Updates	Staff responsible for preparedness activities	Pre-emergency
3.	Concept of Operations	Staff planning and establishing ORWARN operations prior to an emergency	Pre-emergency
4.	ORWARN Activation	Member utilities requesting assistance and Member utilities responding to requests	During ORWARN activation
5.	Response Considerations	Member utilities responding to requests	During ORWARN activation
6.	ORWARN Response Coordination	ORWARN Response Team Members helping to coordinate the ORWARN Member's response during an emergency	During ORWARN activation
7.	ORWARN Communication Tools	Member utilities requesting assistance and Member utilities responding to requests	During ORWARN 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 ORWARN activation

Assumptions

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

- **Emergency Response Plans are in place.** While utility-specific Emergency Response Plans (ERPs) are not within the scope of this document, ORWARN encourages all utilities to develop or update an ERP. With the development of the National Incident Management System (NIMS), ERP updates include how the utility uses the Incident Command System (ICS), how the utility integrates with its local emergency management and response agencies, and how the ERP addresses vulnerability assessments, if they are also completed. Additionally, ERPs from Member utilities can integrate expected ORWARN activities.

- **Employees are trained according to the ERP, ICS, NIMS, ORWARN and AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual, and FEMA Resource Typing.** In order to respond to all emergencies, Member utilities 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 training. Additionally, employees can be trained according to ORWARN activities and be familiar with the AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual and FEMA Resource Typing

- **Utilities have signed a single, statewide omnibus ORWARN Agreement.** The ORWARN Agreement establishes the foundation of ORWARN 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.

- **ORWARN is coordinated with local and state authorities.** Coordinated response and access to restricted areas relies on communication between the ORWARN and the following groups or organizations:
  - o Utilities
  - o Local emergency management agencies
  - o State emergency management agency
  - o State drinking water primacy agency
  - o State wastewater permitting authority
  - o Local and State law enforcement authorities

The relationship between the ORWARN, state and local agencies, and utilities, is defined by the agreement and documented in the Operational Plan. Exercising the ORWARN with the Member utilities and other response agencies facilitates a successful response with ORWARN.

SECTION 1: Pre-Emergency Responsibilities

ORWARN Member utilities plan and prepare for a real incident prior to responding. Likewise, the Board relies on membership involvement to help organize the activities, plans, and resources to ensure functionality of the ORWARN. Figure 2 identifies the relationship of the Board, its officers, the Member utilities, and subcommittees.

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  │  Secretary  │                                    │  Vice Chair │
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 │Committee │  │Committee │  │         │  │Committee │  │Committee │
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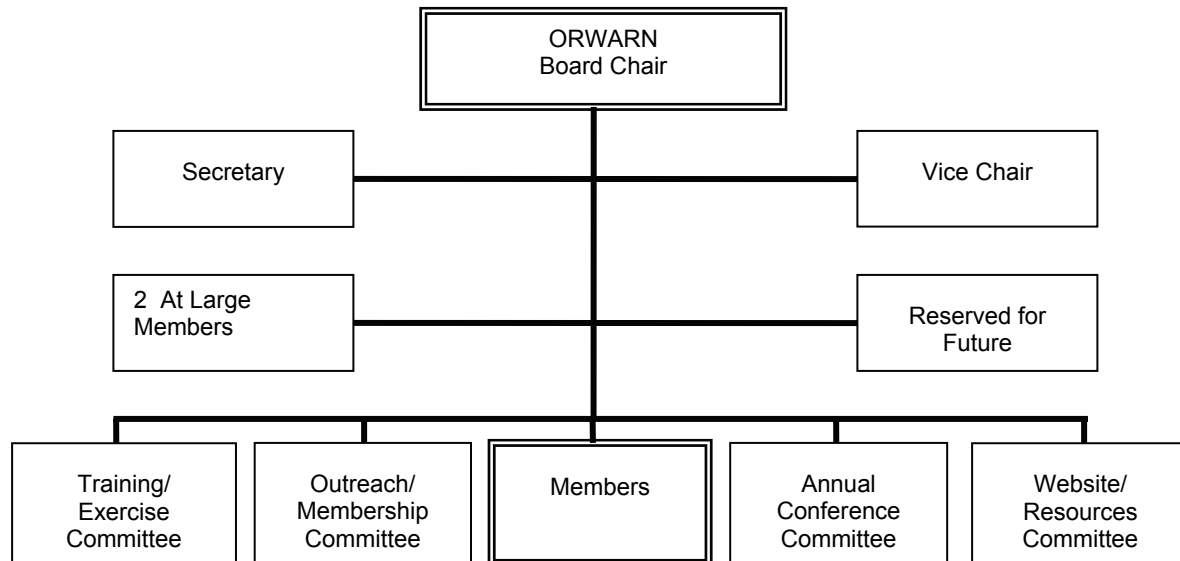
Figure 2: Elements of the ORWARN Organizational Structure

Member Utility

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

Member utilities vote on updates to the Agreement and other topics related to the operations of the Agreement. Each Member has one vote. A private utility with multiple service locations also has just one vote (in relation to one decision-making board).

Pre-emergency responsibilities for Member utilities include:
- Identify an Authorized Representative and alternates who are responsible for:
  - Requesting Assistance
  - Offering Assistance
  - Refusing Assistance

- o Withdrawing Assistance
- Provide the ORWARN with contact information for their Authorized Representative and alternates
- Maintain ORWARN database information for their utility in accordance with their policy. Print a hard copy of the ORWARN 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
- 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 ORWARN 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 ORWARN system, as available
- Attend ORWARN trainings and general meetings

Board

The Board members are elected by ORWARN Member utilities at the annual meeting held in conjunction with the annual conference. Under the leadership of the Board Chair (referred to as the ORWARN Chair), the Board is responsible for the following actions:
- Organize and coordinate emergency planning and response activities for the ORWARN
- Encourage the active participation of Member utilities
- Establish regular meeting schedules to maintain continuity
- Maintain communication with Member utilities regarding updates, changes, or modifications to the ORWARN system
- Maintain the Operational Plan for implementing the ORWARN 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 schedule
- Represent the membership when engaged in meetings, discussions, and consultations with other associations, states, and local agencies regarding ORWARN

The Board consists of:
- Chair
- Vice Chair
- Secretary
- 2 Members at Large

Board Chair

The Board Chair is elected by the utility Members of the ORWARN. The Chair Represents ORWARN 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 Board and an *ex officio* member of all standing committees

Vice Chair

The Vice Chair is elected by the utility Members of ORWARN. The Vice Chair performs duties as assigned by the Chair. During a temporary absence of the Chair, the Vice Chair provides direction to the ORWARN Board. In case the ORWARN Chair retires, resigns, or experiences a long-term absence, the Vice Chair acts in place of the Chair until a new Chair is elected.

Secretary

The Secretary is elected by the utility Members of ORWARN. The Secretary is responsible to record proceedings at all meetings of the Board, and:
- Edit and publish any official administrative publications for the Board
- Receive and maintain a file of notes and records for the Board and subcommittees
- Send official messages approved by the Chair to Member utilities
- Perform other administrative duties as assigned

Members at Large

The two members at large are elected by utility Members of ORWARN. The members at large attend and vote at ORWARN board meetings, lead and participate on subcommittees, and fulfill other duties as assigned.

Associate Members

Associate Members paticipate in ORWARN. An associate Member is any non-utility ORWARN participant that provides a support role to the ORWARN program. Associate Members may include the following:
- Professional water sector association representative(s) (AWWA, National Rural Water Association, Water Environment Federation, etc.)
- State drinking water primacy agency
- State wastewater permitting authority
- State Emergency Management agency
- Department of Public Health
- U.S. Environmental Protection Agency Region
- Other interested organizations, businesses or individuals

Associate Members may attend ORWARN Board meetings, the annual conference and meeting and participate in ORWARN activities. As advisors, these Members do not vote on ORWARN actions, but do provide input.

Typical Subcommittees

Standing Subcommittees include:
- Training and Exercises
- Outreach and Membership
- Website and Resources
- Annual Meeting and Conference

Ad hoc Subcommittees include:
- Operational Plan
- Response Coordination

ORWARN utility Members and associate Members may participate in one or more subcommittees. The Board approves the creation of and membership in the subcommittees.

Operational Plan Subcommittee

To comply with the ORWARN Agreement to create an Operational Plan, the ORWARN Board may identify a group of Member utilities to create an Operational Plan to ensure the ORWARN is ready to respond. This "standing subcommittee" focuses on procedures and materials designed to manage and improve the operations of the ORWARN. The committee is responsible to:
- Maintain the ORWARN Mutual Aid/Assistance Operational Plan
- 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.
- Lead regular Member utility training to maintain familiarity with the operations of the Agreement
- Conduct an "after action review" of the ORWARN system operations following each emergency and make recommendations for improvement

Response Subcommittee

All emergencies are local and require local capability to respond. For most emergencies mutual aid/assistance requests can be handled utility to utility. In larger events where multiple utilities are affected and assistance is required to coordinate the number of requests, an ORWARN Response Team consisting of pre-trained Utility Members from unaffected utilities may be located at various levels of government including the State and County Emergency Operations Center, as called upon. An example may be if a major earthquake struck Oregon, trained utility Members may staff the State Operations Center or a county EOC, so the utilities affected by the earthquake may continue their response to meet the needs of their customers.

In general, trained members of the Response subcommittee take what the Operational Plan Subcommittee has prepared and ensures ORWARN response coordination. Members of the Response Team may organize exercise programs as needed to test the Operational Plan with Member utilities. They may also participate in exercises (as appropriate) conducted by individual utilities, local government, and county or state emergency management organizations.

Response Subcommittee personnel complete training on the following documents and programs:
- ORWARN Mutual Aid/Assistance Operational Plan
- Exercise Design
- FEMA Emergency Management Institute Independent Study courses (recommended series of NIMS and ICS training can be found in Section 2)
- State operational activities
- Emergency Management Assistance Compact (EMAC)
- National Response Framework (NRF)
- FEMA Public Assistance Program

This list of training may be useful and applicable to all ORWARN Members.

Membership Subcommittee

ORWARN has 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 ORWARN concept
- Market and recruit new Member utilities

SECTION 2: Training, Exercises, and Updates

Training

ORWARN uses a multi-year training plan to prepare Member utilities, Authorized Representatives, Response Team Members and other relevant stakeholders. The training plan includes common training to enhance response with mutual aid/assistance resources and ensure the ability to coordinate response with outside agencies. Each Member Utility is responsible to ensure designated employees:

- Understand the ORWARN Agreement
- Review the ORWARN Mutual Aid/Assistance Operational Plan
- Understand the ORWARN Web site, database, and other communication protocols
- Understand the AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual and FEMA Resource Typing.
- Review the utility's safety procedures and ERP

Each utility may implement the NIMS training requirements according to their internal policy. Currently NIMS requirements 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 are on the Response Subcommittee 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

The training plan can include courses or instructions on how to complete the ORWARN Operational Plan documentation, including:

- Damage assessment
- Tracking and documenting expenses using existing utility accounting forms
- Reimbursement following local and state emergency agencies' processes and procedures

Exercises

ORWARN periodically exercises its Operational Plan to validate the ability to execute and evaluate the plan. ORWARN uses a multi-year exercise plan to initiate a building-block approach in which training and exercise activities focus on specific capabilities in a cycle of escalating complexity. According to the U.S. Department of Homeland Security's (DHS) Homeland Security Exercise and Evaluation Program (HSEEP), there are seven distinct types of exercises[2]. This document discusses the three types of exercises below.

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[2] For more information on U.S. DHS HSEEP, visit https://hseep.dhs.gov/.

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Tabletop Exercises
Tabletop Exercises, a type of discussion-based exercise, bring together key personnel to discuss hypothetical scenarios in an informal setting. ORWARN Member utilities can use this type of exercise 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. Tabletops typically aim at facilitating understanding of concepts, identifying strengths and shortcomings, and achieving changes in the approach to a particular situation. An exercise facilitator encourages participants to discuss issues in depth and develop decisions through slow-paced problem solving, rather than the rapid, spontaneous decision making that occurs under actual or simulated emergency conditions. The effectiveness of a tabletop is derived from the energetic involvement of participants and their consideration of recommended revisions to current policies, procedures, and plans. The ORWARN may participate in and facilitate tabletop exercises with Member Utilities or participate in exercise programs designed and run by local emergency management or state emergency management authorities.

Functional Exercises
A Functional Exercise is designed to evaluate and validate individual capabilities, multiple functions, activities within a function, or interdependent groups of functions. Functional exercises center on an exercise scenario with dynamic events that drive activity at the management level. A functional exercise simulates everyday operations in a functional area by presenting complex and realistic problems that require rapid and effective responses by trained personnel operating in a highly stressful, time-constrained environment. The ORWARN may participate in independent, State, or local functional exercises.

Full-Scale Exercises
Full-Scale Exercises are multi-agency, multi-jurisdictional, multi-organizational exercises that validate many facets of preparedness. They include many players operating under cooperative systems such as an Incident Command System to effectively and efficiently prevent, respond to, or initiate recovery from an incident. 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. In full-scale exercises, a highly realistic depiction of operations in multiple functional areas presents complex and realistic problems that require critical thinking, rapid problem solving, and effective responses by trained personnel. During full-scale exercises, facilitators project events through a scripted exercise scenario with built-in flexibility to allow updates that drive activity. The exercises play out in real time, creating a stressful, time-constrained environment that closely mirrors real-life events.

At a minimum, ORWARN plans for at least one tabletop exercise annually. Functional and full-scale exercises may occur periodically. In planning and conducting either type of exercise, the ORWARN can engage the state emergency management agency; state drinking water primacy agency, and the state wastewater permitting authority. Additionally, the ORWARN may participate and facilitate full scale exercises with Member utilities or participate in exercise programs designed and run by local emergency management or state emergency management authorities.

Updating the ORWARN Operational Plan
Following an incident, exercise, or every five years, (whichever is soonest), the Operational Plan Subcommittee may accept comments on the Operational Plan from Member utilities. ORWARN Member utilities will be notified that comments are being accepted. Feedback will be collected by the Operational

Plan Subcommittee and consolidated into the Operational Plan as appropriate. The ORWARN Board reviews the comments and approves any revisions to the ORWARN Operational Plan. The ORWARN Board communicates approved Operational Plan changes to ORWARN Members and Associate Members and those persons who are assigned roles within the plan.

While the ORWARN Board is responsible to inform and train the Member utilities on the changes to the Operational Plan, it is the utility and Associate Members' responsibility to integrate the updated Operational Plan into their respective emergency response or emergency operations plans.

Any suggested changes that impact the agreement are handled separately from the Operational Plan updates. Two appointed legal representatives from Member utilities may review the suggestions to determine the impact on the agreement. Based on review of the impacts, the Board determines whether to submit the changes for a vote to the Member utilities.

SECTION 3: Concept of Operations

ORWARN Relation to Local and State Response

The relationship between ORWARN and the local and state emergency response system is critical. This Operational Plan and other NIMS concepts enable local jurisdictional authorities to benefit from standard practices and frameworks. According to NIMS, local jurisdictions retain command, control, and other authority over response activities for their jurisdictional areas[3]. Incidents typically begin and end locally and are managed on a daily basis at the lowest possible geographical, organizational, and jurisdictional level. Local jurisdictions also have flexibility to adjust the scale and scope of their response to the emergency.

The following is a list of the emergency responsibilities and levels of response that may be part of a ORWARN mobilization. The cumulative activities mirror those described in the NIMS Multi-Agency Coordination System (MACS) Group process (for more information on MACS, see Section 2: Training, Exercise, and Updates). Linkage to the MACS and local emergency response groups is presented in the following subsection, "Response Consideration by Role". Emergency management agencies may modify the process described below as agencies recognize the need to change and adapt incident management and emergency response for an incident, due to changes in scope and/or scale over time.

Depending on the size of the emergency, all levels of response described below may not be needed every time the ORWARN is activated. As all emergencies are local, if the resource needs can be addressed by one utility calling another, that may be all that is needed. Communication with the ORWARN Steering Committee is suggested so that the Steering Committee is aware that resources were requested. This can be accomplished via e-mail if available or contact with one designated person from the Response Committee. 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:	Description of Activity:
Utility Field Personnel	• 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 identifies 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, fire and rescue, emergency medical, etc.). This is known as unity of command in ICS.
Utility (Private or Public)	• Public utilities can either be part of a city or county agency, or they can be 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.
	• Private utilities are generally investor owned and operated. While private utilities are not required to comply with NIMS, most choose to follow NIMS protocols as a best practice approach.
	• 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

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[3] Page 12. Draft National Incident Management System. April 2007.

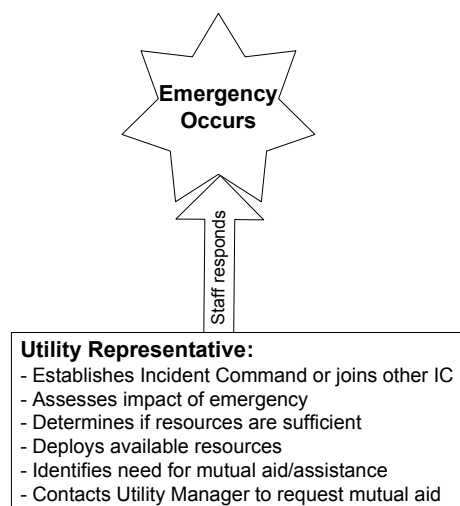| Role:	Description of Activity:
	appropriate city or county Emergency Operations Center (EOC).
	• Special districts or independent utilities may activate an agency DOC, and/or depending on the number of cities or counties served, the utility may directly report to or participate with a city, county, or state EOC.
Local Government (Cities)	• Depending on the size and complexity of an emergency, local governments may operate EOCs to coordinate resources and manage operations within the jurisdiction.
	• Local governments may assist the local utility with the emergency, provided that local resources and supplies are available and that Local Government response resources are available and can be dedicated to this responsibility.
	• If necessary, the city may request county and state assistance.
County Government	• Typically led by county management, a county EOC may be activated to coordinate the emergency response actions of all jurisdictions within the boundary of the county. Upon request or when response to disruption of local drinking water or wastewater systems becomes a priority for the county, staff may be identified to help coordinate county resources to assist cities, special districts, and local utilities.
	• If necessary, the county may request State assistance.
ORWARN	• Designated ORWARN 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.
	• If the ORWARN representatives do not sit in the state EOC, the ORWARN representatives may meet at a designated facility, a Member utility's DOC, or at the county and/or city EOC to help coordinate ORWARN Member utility mutual aid/assistance response.
	• Depending on the organizational plan, when in a city, county, or state EOC, the ORWARN representatives could be seated in the Operations Section, Planning Section, Response Coordination group, or another designated reporting location.
State Government	• As needed, the state coordinates state and regional resources to assist the cities and counties.
	• Typically led by state management, a state EOC may be activated to coordinate the emergency response actions of all jurisdictions within the state.
	• 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 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	• Upon request, or when local drinking water or wastewater system disruption necessitates federal assistance, the Federal Emergency Management Agency (FEMA) coordinates federal emergency response resources through Emergency Support Function #3 (ESF #3), Public Works and Engineering. As the ESF #3 primary agency, the U.S. Army Corps of Engineers (USACE) is responsible for coordinating supplemental assistance to state and local jurisdictions.

Role:	Description of Activity:

- As a support agency to ESF #3, the U.S. EPA works closely with USACE and FEMA. U.S. EPA is the lead federal agency responsible to support the water sector as detailed in HSPD-7.
- Federal emergency response resources may also be coordinated through ESF #10 (Oil and Hazardous Materials Response) where EPA is responsible for decontamination of water infrastructure and ambient water quality.
- ESF #8 (Public Health and Medical Services), in coordination with ESF #3 and ESF #10, may assist in assessing potable water, wastewater, solid waste disposal, and other environmental health issues; conducting field investigations, including collection and laboratory analysis of relevant samples; providing water purification and wastewater/solid waste disposal equipment and supplies; and providing technical assistance and consultation on potable water and wastewater/solid waste disposal issues.

Response Considerations by Role

All emergencies are local and begin with the field[4] response. It is important for a utility to understand how to optimize the Incident Command System (ICS) principles and activities identified in the National Incident Management System (NIMS) and in ICS 100 and 200 training courses. Rather than duplicate the available on-line training, this document reviews the linkages between the field responders, the management of a medium- to large-sized utility, and other response organizations beyond the local response. It also reviews the field personnel role in requesting and engaging mutual aid/assistance resources.

Field Response

Using the Incident Command System (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.

Emergency Occurs

Staff responds

Utility Representative:
- Establishes Incident Command or joins other IC
- Assesses impact of emergency
- Determines if resources are sufficient
- Deploys available resources
- Identifies need for mutual aid/assistance
- Contacts Utility Manager to request mutual aid

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[4] "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.

Figure 3: Utility Field Response

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 can best identify the resources required and where incoming resources specifically report. 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.
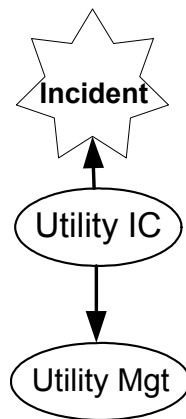
Figure 4: Utility IC Reporting to Utility Mgt

In the event the utility is called to respond to an incident where a law, 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, 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

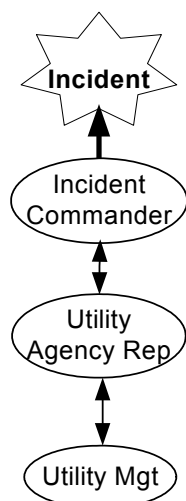While command remains in the field with the Incident Commander (IC), for a utility that is part of a city or county government, the utility management may activate a Department Operations Center or Utility Operations Center to rally resources of the department to coordinate its response. The utility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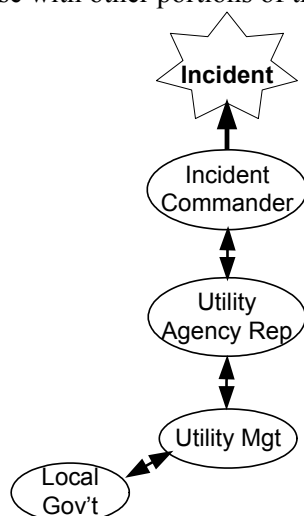
Figure 6: Utility "Agency Rep" Reporting as part of city/county government

Area Command

In complex emergencies that expand beyond one scene, the National Incident Management System (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 required to respond alongside the utility, coordination between multiple entities may require the use of the Multi-Agency Coordination (MAC) concept described in NIMS. Implementing a "MAC 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 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 ORWARN 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 which activated the ORWARN Agreement
- Resources on their way
- 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 needs to be educated on what the ORWARN program is and how it can assist the city or county in responding to the needs of the utility community. In this case the ORWARN 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.

ORWARN

Once a Board member (or Response Subcommittee) member is contacted, the ORWARN system is activated. Initially, the ORWARN 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 ORWARN Board or Response Subcommittee members may come together to coordinate requests. As the need for coordination increases, trained volunteers from ORWARN Member utilities that are not affected by the emergency may be requested to help with coordination of the ORWARN. These volunteers form the ORWARN Response Team (explanation of if or how these volunteers' resources are reimbursed is described in Section 5 of this Operational Plan). The key responsibility would be to match needs with resources offered by utilities not affected by the emergency. During large events, the ORWARN Response Team Members could be located at the state EOC or an EOC near the incident location. Alternately, the ORWARN Response Team Members could be located at an unaffected utility. In small events, ORWARN 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 ORWARN program or state employee knowledgeable of ORWARN 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. Requests for assistance typically come through the state government

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 regulation. 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 resources require a presidential declaration of a major disaster for deployment. As the federal response is organized, the U.S. EPA supports Emergency Support Function #3 (led by the U.S. Army Corps of Engineers) to support infrastructure response and recovery.

SECTION 4: ORWARN 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 an option, they are encouraged to review **Attachment A, Requesting Utility Checklist**. Activation occurs when one Member Utility calls another Member Utility to discuss the exchange of resources. Once the resource needs are identified the Member Utility evaluates the options that meet those needs described in Figure 7, including local mutual aid agreements, the ORWARN Agreement, or any existing Statewide Master Mutual Aid Agreement.

A utility may have as many as three options for obtaining assistance via local one to one agreements, access through a statewide mutual aid program for public agency responders, and the intrastate WARN utilities agreement.
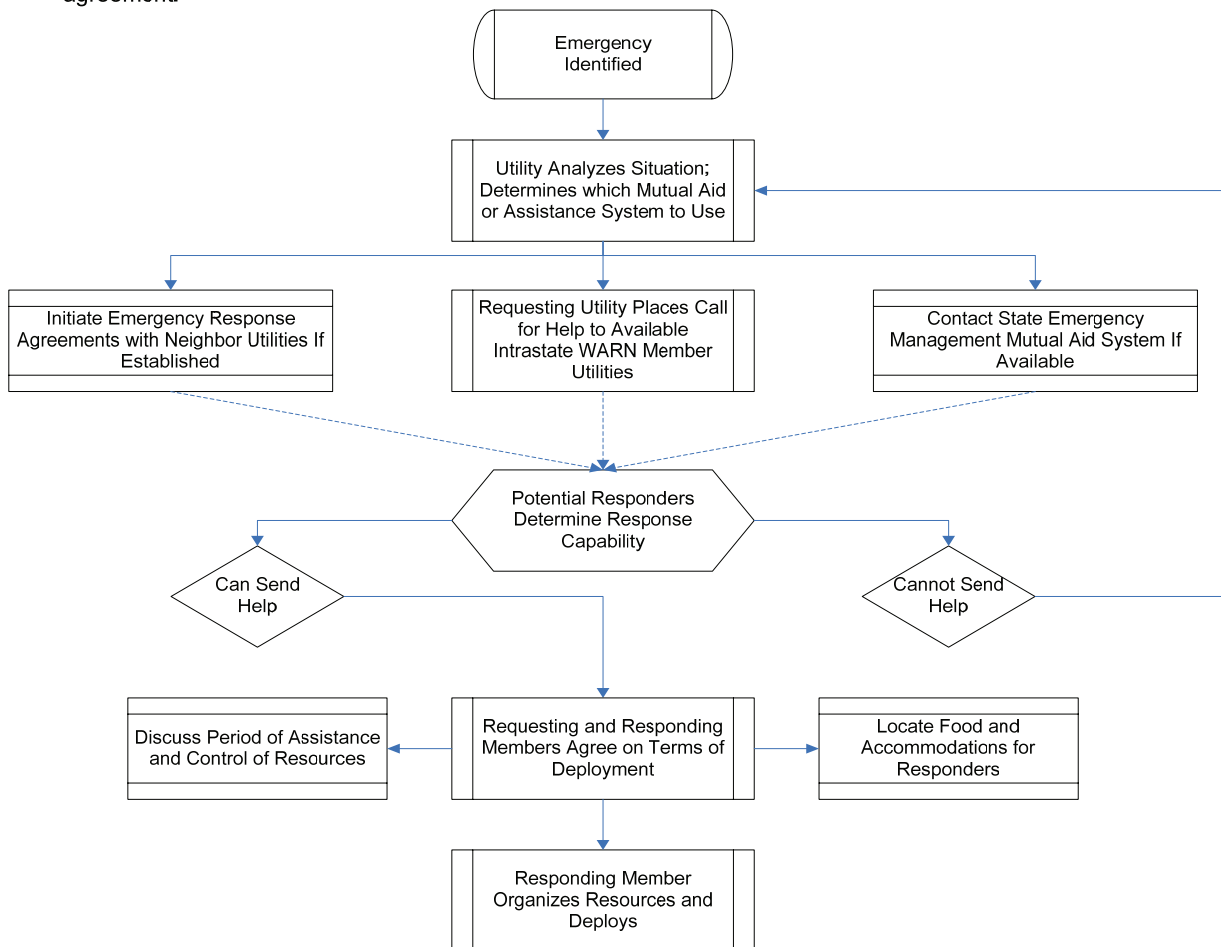
Figure 7: Utility Activation of ORWARN: Mutual Aid/Assistance Process Flow Diagram

If it is determined that the best option is to utilize resources through the ORWARN Agreement the following protocol should be considered.

Who Activates ORWARN?

Any Member Utility of the ORWARN Agreement can determine that they require the assistance of another Member Utility and therefore decide to activate the ORWARN Agreement. (**See Attachment A, Requesting Utility Checklist**.) The ORWARN Agreement can be activated by a utility to utility request,

or during large events through the ORWARN Response Team at the county EOC, or State Emergency Operations Center. When the need of one utility is matched to a utility with resources, the Authorized Representatives confer and agree on the terms of deployment.

What is Activated?

As needed, a Member utility activates the ORWARN Agreement and it is referred to thereafter as the Requesting Utility. The 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, it does not require or activate the EOC of the Responding Utility. These items are determined by dialog between the Requesting Utility and a Responding Utility at the time of the emergency.

Activation

Some types of emergencies (e.g. severe storms or floods) can be characterized as "ORWARNing" 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 Members about changing conditions and information
- Receive requested resources and identify follow-up actions

Other disasters provide no ORWARNing 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

Once a Member Utility has recognized the need to activate the ORWARN Agreement, the Requesting Utility can access the ORWARN Database on the ORWARN Web site (or a hardcopy of the database) to determine what Member Utilities may have the required resource. When activating the ORWARN Agreement, the Member Utility calls the Authorized Representative in the ORWARN Database to make the request. Initial notification can be via telephone, radio, email or fax.

The utility requesting mutual aid/assistance gathers the following information and contacts Member utilities or the ORWARN Response Team Members (details are in **Attachment B**, **ORWARN Emergency Notification Form**):
- Type of incident
- Impact on utility
- Number of agencies in response
- Known limitations or restrictions
- Available communication tools

Always back up verbal notifications between requesting and responding utilities with a written communication (fax or e-mail) using the **ORWARN Emergency Notification Form (Attachment B)**.

9/27/2011

In all cases in which the ORWARN Agreement is activated, participating Member Utilities must notify the ORWARN Board.

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 should consider 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 and FEMA Resource Typing)?
- 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 should inform, as soon as possible, the Requesting Member that it is available to respond and the approximate arrival time of such assistance. When possible all verbal agreements should be confirmed with a written communication (fax or e-mail).

At this time the Responding Utility and Requesting Utility should clarify and agree upon the following items:

- the Requesting Utility's ability to provide care and shelter (food, sleeping arrangements, first aid, etc.) for personnel and resources,
- the reimbursement process to determine whether the responding utility follows the reimbursement article of the ORWARN Agreement, and
- the request to determine 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, 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.

Requesting Utility

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

- use the ORWARN Database and AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual and FEMA Resource Typing to determine how to type the resources required and which Member Utilities can potentially meet that need,
- use **Attachment C: ORWARN Request and Authorization Form** to initiate the mutual aid/assistance process and then transmit the form to potential Responding Utility,
- After the Responding Utility returns **Attachment C: ORWARN 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, and
- 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 ORWARN 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 and FEMA Resource Typing Manual.
- If mutual aid/assistance is requested via a Request and Authorization Form, the potential Responding Utility should review and determine whether it can meet this request,
- The potential Responding Utility estimates 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,
- Identify supervisors and staff to respond to the Requesting Utility, consider which employees can adapt to the environment of the incident (consider physical and mental health impacts),
- Develop a Communications Plan between supervisor of the responding teams and the Responding Utility,
- Conduct a deployment briefing with all staff on the responding teams. Include the following items:
  - ICS refresher courses and command structure of incident, if known
  - Pre-deployment health and safety considerations, including but not limited to immunizations, special tools or clothing

- o Environmental conditions onsite
- o Care and shelter arrangements
- o Rules of conduct during deployment, including but not limited to, activities allowed after work hours
- o Review of documentation procedures
- Inform Requesting Utility of the responding team's deployment and estimated time of arrival.

Requesting Utility Demobilization

Following standard ICS practices of demobilization, write a demobilization plan on how to coordinate the return of resources, including the debriefing of staff and the inspection of equipment and materials.

- Capture personnel evaluations and identify future tactical resource needs. This should 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 in a demobilization plan. This should 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, and
- 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:
  - o Injury reports
  - o Timesheets
  - o Material purchased
  - o Equipment used

The Responding Utility will prepare appropriate invoices according to the ORWARN Agreement.

SECTION 6: ORWARN Response Coordination

In incidents that affect more than one utility at the same time, mutual aid 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), ORWARN coordination can expand. As the need for coordination increases, the ORWARN Response Team may come from non-affected parts of the state to help the area that is affected during a large emergency, so the impacted utilities can focus on repair and restoration. During an incident that affects multiple counties, coordination at the region and/or state level may be necessary. The following applies when coordination is needed at the operational area, region or state levels.

Once a Member Utility contacts the ORWARN Board, any initial response effort may be managed by one person and then grow to include a team. If activated, the purpose of the ORWARN Response Team is to:
- Provide a point of contact and liaison for utility-related matters during an emergency
- Collect information regarding:
    o Extent and type of customer and infrastructure damages
    o General geographic location(s) of outages
    o Expected duration of outages
    o Number of customers affected
    o Resource and information requirements of the affected utilities
- Assist in locating emergency resources, 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 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 requires a full "team response," the Response Team Members may gather at the State EOC, a local EOC, or other designated location. The Response Team Members are responsible for the overall management of the ORWARN response. (See **Attachment L** for details and information about the reporting sites.) During a small event, the ORWARN Leader can assume the responsibilities of the Response Team Members.

Response Team Member Roles and Responsibilities

The ORWARN Response Team is organized to assist as part of a Multi-Agency Coordination (MAC) system when water sector utilities need support. At the county or state level the ORWARN 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 ORWARN 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 ORWARN 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 ORWARN Response Team to represent ORWARN at the incident briefings and meetings
- Monitor the number of requests
- Identify possible sources of additional support for ORWARN Member Utilities
- Identify gaps in the requests and resources available

The ORWARN Response Team may coordinate various activities. The type of incident and extent of damage may determine exactly which activities are required. As the incident expands each ORWARN Response Team Member may be assigned to focus on just one activity (the **Attachment I: ORWARN Response Team Member Checklist** is formatted to facilitate this concept):
- Manage Damage Assessment Data
- Receive, Track, and Monitor Requests
- Coordinate Resource Orders
- Coordinate Staging Area Information.

SECTION 7: ORWARN Communication Tools

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

Radio Systems

Secondary communication tools are utility-owned radio systems. Radio is secondary 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 ORWARN Member utilities consider alternative plans to achieve the same result. ORWARN Member utilities can maintain a cache of additional radios to distribute to incoming mutual aid/assistance supervisors for communications during an emergency. Additionally, ORWARN Member utilities can consider HAM radio as an optional backup radio system.

Web Site

ORWARN operates a Web site (www.ORWARN.org) allowing Member utilities to access 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 ORWARN 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:

- ORWARN Emergency Notification Form (See **Attachment B**)
- Resource Requests (See **Attachment C** and **Attachment J** – AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual)
- Damage Assessment Reporting

As exercises and response actions modify the Operational Plan, the responsible ORWARN Steering Committee member updates Web site materials and procedures.

The ORWARN 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. ORWARN Web sites' instructions should be included in this plan on how to access online information.

Questions during response can be addressed by calling Board members or Response Team contacts. Print out their contact information sheets from the Web site 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 event, all ORWARN Members involved with mutual aid 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 ORWARN Member utilities who assisted in the ORWARN Response Team. The reviews and reports require input from all key players and groups involved in the response and recovery. Therefore, if the incident is small and only involves a small number of ORWARN Member utilities, then it may fall to the affected utility to carry out this step of the process. If the incident is large and involves many agencies and jurisdictions, the ORWARN Response Team Members may coordinate the after action review and report process among all the participants. In this case, the ORWARN 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 to the event. ORWARN 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, ORWARN, 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?

- o Were databases used and are they interoperable across different workgroups and jurisdictions?

- Mobilization
  - o Was the information gathered from notifications sufficient to accurately organize and prepare for mobilization?
  - o How quickly did "full" mobilization occur between stakeholders that responded?

- Operational Support
  - o What actually occurred at all levels of participation (timeline)?
  - o What were the pre-event plans and processes for preparedness, response, recovery, and mitigation?
  - o Did the plans and processes meet the need of jurisdictions and agencies responding to this event?
  - o How accurately were resource requests anticipated and fulfilled?
  - o How can procedures for pre-staging resources, making and fulfilling resource requests, tracking and reporting on resource status, and recovering resources be improved?
  - o How accurately were personnel requests anticipated and fulfilled?
  - o What were some success stories?
  - o What areas need improvement to facilitate response in the future?

- Demobilization
  - o Was a demobilization plan in place before the event? Was it followed?
  - o What worked well?
  - o What did not work well and were steps taken to address the situation?
  - o What can be improved for the future and what options are available?

- Miscellaneous
  - o What are some other lessons learned not captured above?

Improvement Plan

The After Action Report with the assessments and recommendations then 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: ORWARN Emergency Notification Form
Attachment C: ORWARN 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: ORWARN Response Team Member Checklist
Attachment J: ORWARN Request Summary Sheet
Attachment K: Activity Log
Attachment L: State Emergency Operations Center/ORWARN 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 requires 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 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.
  - o 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: ORWARN 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: ORWARN Emergency Notification Form**.

☐ If assistance is not available from neighbors, identify other ORWARN 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 ORWARN 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: ORWARN 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:
  o On small incidents, the demobilization process may be quite simple, and can be handled by an Authorized Representative
  o On larger incidents, a Response Team Member can be designated to develop a Demobilization Plan
  o Capture personnel evaluations and identify future tactical resource needs

If a formal Demobilization Plan is indicated, ensure that it includes the following five sections:
  o General Information
  o Responsibilities
  o Release Priorities
  o Release Procedures
  o Directory (maps, phone listings, etc.)

While preparing to demobilize the requesting utility needs to:
  o Collect damage and response cost figures
  o Accept bill(s) from responding utilities
  o Provide payment, according to the ORWARN Agreement
  o As appropriate, submit for FEMA or other reimbursement mechanisms

☐ Post demobilization:
  o Collect names of mutual aid/assistance teams and supervisors
  o Send letters of thanks
  o Request input for After Action Report
  o Send copies of After Action Report

Attachment B: ORWARN Emergency Notification Form

Purpose: The Authorized Representative needs to provide written information regarding emergency, sense of urgency, and conditions.

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 ORWARN Utility Member.

INCIDENT		
Date/Time:		
Utility Name:	Type: Water or Wastewater Utility	
City and County:	General Phone Number:	
Authorized Representative Name:	Title:	
E-mail:	Cell Number:	Fax:
General Location of Emergency:	Agencies Responding: Law Enforcement / Fire / Public Works	
Declaration of Local Emergency made by local government: Yes or No		
If Yes, when and by whom:		
TYPE OF EMERGENCY (check all that apply)		
☐ Contamination	☐ Earthquake	☐ Fire
☐ Flood	☐ Hurricane	☐ Ice Storm
☐ Tornado	☐ Other	
DAMAGE (check all that apply)		
☐ Storage	☐ Treatment	☐ Waste Collection
☐ Water Aqueduct System	☐ Water Supply	☐ Water Distribution System
Describe Damages:		
# of Customers Affected:		
Operational Status: Boil Water Notice/Advisory Do Not Use Notice/Advisory Do Not Drink/Advisory Not Operating Status Unknown		
Power Sources: Power is operational Power is out Generator power		
Damage area: Accessible Under water Inaccessible due to debris		
Communications Operating: Landline Cell Satellite Radio (what band)		
MUTUAL AID REQUIRED: Yes No If yes, initiate Attachment C, ORWARN Request and Authorization Form:		
Form Completed By Authorized Rep:		
Name:	Title:	
Signature:		
Phone Number:	Cell Phone:	

Attachment C: ORWARN 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 ORWARN 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:
ORWARN 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:	

Part III REQUESTING UTILITY CONFIRMATION AND APPROVAL

Authorized Rep Name:		Location:	
Signature			
Dated:	Time: hrs	Request No:	

Part IV ORWARN COORDINATION (as needed)

ORWARN Rep:		Location:	
Signature			
Dated:	Time: hrs	Request No:	

Additional Information:

MISCELLANEOUS ITEMS / OTHER INFORMATION

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[1]:

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[2]	# 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
							Subtotal:	$0.00	$0.00

Equipment (insert lines above subtotal as needed)

Item	Hourly Rate[3]	No. of Hours	Total
			$0.00
			$0.00
			$0.00
		Subtotal:	$0.00

Commodities/Materials (insert lines above subtotal as needed)

Item	Unit Cost	Quantity	Total
			$0.00
			$0.00
			$0.00

Notes:

	Item	Unit Cost		Quantity	Total
Other Costs[4] (insert lines above subtotal as needed)					$0.00
					$0.00
			Subtotal:		**$0.00**

2. TRAVEL	Units	Description	Total
Lodging	$/person/night		
Food	$/day/person		
Personal Vehicle	# x miles x 0.0488/mile		
Government Vehicle	# x miles x 0.0488/mile[5]		
	daily/weekly rate as applicable x		
Rental Vehicle	duration		
Air Travel	$/person/roundtrip		
Other Travel	as necessary		
		Subtotal:	**$0.00**

3. TOTAL EXPECTED DEPLOYMENT COST:			**$0.00**

Footnotes:
[1] From requestor, may be more than one and of different kind/type
[2] Assumes a 12-hour work day
[3] Use FEMA rates if unknown
[4] Items to Consider: Fuel for equipment, O&M for equipment
[5] Consult the Internal Revenue Service for latest federal government reimbursement rate

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.

Staging Area

☐   Identify a location outside the immediate impact area to serve as a Staging Area.
- o   What is the address of the Staging Area?
- o   What is the Staging Area Manager's Name?
- o   What is the Staging Area Manager's Contact Information?
- o   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?
- Are 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?

o 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	Camp-grounds
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.

- o 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?
- o 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
- o 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?

  o 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?
  o 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?
  o Tetanus
  o Hepatitis A or B
  o Flu
  o Other _____, _____, _____

☐ Are hospitals functional?

☐ Are paramedic and/or ambulance services functional?

☐ How significant is the disaster to the public?
  o Significant damage due to incident (e.g. many homes destroyed, off foundations, etc.)?
  o Significant emotional impact due to loss of life or suffering?
  o What is chance of finding deceased humans?
  o 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.

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.

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:

　　o Date and time of delivery of goods and material.
　　o Delivery site.
　　o 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
- 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.

☐ 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.

  o Work Hours/Overtime
  o Materials/Resources Expensed
  o 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
   ORWARN Response Team if activated to inform them of availability.**

☐ **When a request for aid/assistance arrives, assess request.**

    o 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

    o 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

    o How long are teams needed? Is there need for "relief" teams for first set of teams?

    o 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.)**
    o Be clear on how teams would be sheltered and fed. Identify any risk associated with shelter or feeding.

    o 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.**

- o 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.)

- o Identify how teams are selected. Identify specialized work rules. Review with any union leadership.

- o Identify a communications plan for teams. How do they communicate with each other, the borrowing agency, and family?

- o Identify teams for travel.

- o 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:**

- o Inspect vehicles for travel and equipment use.
- o Inventory and standardize stock of equipment and supplies on vehicles.
- o Send a mechanic with teams and equipment.
- o Ensure emergency food and water is present on all vehicles.
- o 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 ORWARN 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: ORWARN Response Team Member Checklist

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

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

☐ Once notified of need to activate the ORWARN 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 ORWARN Leader to receive an initial briefing on the general situation and immediate tasks to be performed. Briefing should:

- o Detail nature and extent of emergency;
- o Identify extent of affected utilities and status;
- o Describe nature of assignment;
- o Provide status report update and criteria; and
- o Identify contact person to receive the information.

☐ Review any posted information and Incident Briefing forms IS 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:

- o Date and time;
- o Contact name and number;
- o Communications/coordination received/made; and
- o 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 ORWARN Leader of emerging issues or concerns you perceive as "sensitive";

☐ Keep all related status boards up-to-date;

☐ Coordinate with the ORWARN 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 ORWARN Leader for direction.

General activities

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

☐ Provide regular updates to the ORWARN 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:
  o extent and type of customer and infrastructure damage;
  o general geographic location of utility outages;
  o expected duration of outages;
  o numbers of customers affected by county; and
  o 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 ORWARN 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 ORWARN Leader, provide utility Status Reports and special needs requests as indicated; and

☐ Perform additional duties to support the utility sector as requested by the ORWARN 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 ORWARN 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 Emergency Directory 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 ORWARN Leader to "stand down," prepare a situation status report about the utilities you represent, including estimated outages, restoration and damages;

- ☐ Provide briefing to the ORWARN Leader;

- ☐ Remain available by phone to respond if activation staffing is increased; and

- ☐ Sign out.

Shut Down Activities

- ☐ Under direction of the ORWARN 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 J: ORWARN Request Summary Sheet

Purpose: ORWARN Response Team Members if activated use this form to track requests for mutual aid/assistance.

Instructions: After receiving a copy of Attachment C from the requesting utility, assign a number to each request in column 1. Put name of utility requesting aid in column 2. Summarize resource needs in column 3. Put name of responding utility in column 4. Put estimated time of arrival of responding resources in column 5 and the time they left in column 6. Put estimated cost of this deployment in last column.

Date/Time						
Request No.	Requesting Utility	Need Summary	Responding Utility	ETA	Estimated Deployment Time	Estimated Costs

All Times – Local 24 Hour Clock

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Attachment K: Activity Log

Purpose: ORWARN 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 are you 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.

ORWARN Coordination Activity Log	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

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

Purpose: ORWARN 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 ORWARN.

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

State Operations Center (SOC)

Closest Airport: Timbuktu

Address: 12121 Albatross Lane
              Almanor, CA 91212
Phone number: 123-456-7890

Figure 1: State EOC

Driving directions: Highway to Almanor. Take exit to Confusion Drive. Take 2nd right and you're there.
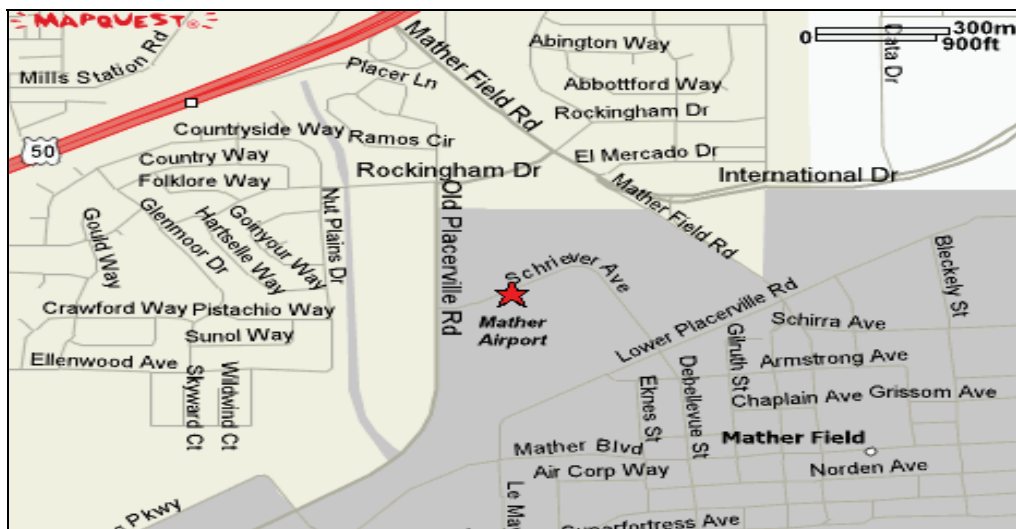

Figure 2: State Operations Center Location

Local Hotels Addresses and Phone Numbers:

Extended Stay America

1-800-398-7829
10721 Rocky Road
Almanor, CA

Best Inn

916-363-3344
3240 Rather Road
Almanor, CA

Holiday Inn Hotels

916-635-0666
11131 Folsom Prison
Alligator, CA

Courtyard by Marriott

1-800-321-2211
10683 Rocky Road
Almanor, CA

Local Restaurants and Eateries:

Togo's Eatery
2800 Zinfandel Drive
Albatross, CA 95670

Rudy's Hideaway Inc
12303 Folsom Prison Way
Angora, CA 95742

Luau Garden Chinese & American Buffet
1931 Zinfandel Drive
Albatross, CA 95670

Ruffino's Ristorante
10113 Folsom Prison Way
Angora, CA 95670

Botan Sushi
2827 Zinfandel Drive
Alligator, CA 95670

Las Palmas Mexican Restaurant
10339 Folsom Prison Way
Alphalpha, CA 95670

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.