



Hurricane Katrina 2005 [M.Wolfe/FEMA]

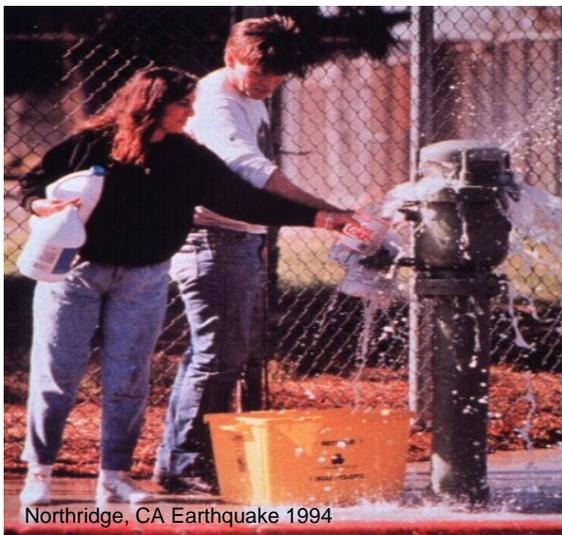


Loma Prieta Earthquake 1989

# Multi-Agency Response Guidance For Emergency Drinking Water Procurement & Distribution

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Northridge, CA Earthquake 1994

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Hurricane Katrina 2005 [M.Wolfe/FEMA]

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## ACRONYMS

The following acronyms are commonly used throughout this guidance and related attachments.

|          |  |
|----------|--|
| ARC:     | American Red Cross   |
| BASIC:   | Bay Area Security Information Collaborative  |
| CA:      | California   |
| CalWARN: | California Water/Wastewater Agency Response Network  |
| CNG:     | California National Guard  |
| CUEA:    | California Utilities Emergency Association   |
| CDHS:    | California Department of Health Services   |
| DHS:     | Department of Homeland Security  |
| DWP:     | Division of Drinking Water Program (a Division of CDHS)  |
| EMAC:    | Emergency Management Assistance Compact  |
| EMMA:    | Emergency Management Mutual Aid  |
| EOC:     | Emergency Operations Center  |
| EPA:     | Environmental Protection Agency  |
| ERT:     | Emergency Response Team  |
| FEMA:    | Federal Emergency Management Agency  |
| FDB:     | Food and Drug Branch (a Branch of CDHS)  |
| ICP:     | Incident Command Post  |
| ICS:     | Incident Command System  |
| LEOC:    | Local Emergency Operations Centers   |
| MACS:    | Multi-Agency Coordination System   |
| NIMS:    | National Incident Management System  |
| NRP:     | National Response Plan   |
| OA:      | Operational Area   |
| OAEOC:   | Operational Area Emergency Operations Center (i.e. county and its' political subdivisions and special districts) |

|         |  |
|---------|--|
| OES:    | Governor's Office of Emergency Services  |
| PIO:    | Public Information Officer   |
| REOC:   | Governor's Office of Emergency Services "Regional Emergency Operations Center"   |
| RIMS:   | Resource Information Management System   |
| ROWPUs: | Reverse Osmosis Water Purification Units   |
| SEMS:   | Standardized Emergency Management System (i.e. Government Code §8607 and Title 19, §2400-2450 of the California Code of Regulations) |
| SOC:    | Governor's Office of Emergency Services "State Operations Center"  |
| UOC:    | Utilities Operations Center  |
| VIP:    | Very Important Person  |

## PREFACE

### **FIRST EDITION, 1996**

During response to the 1994 Northridge Earthquake, the Governor's Office of Emergency Services (OES) combined efforts with the Los Angeles County Fire Department and Office of Emergency Services to create a method to procure and distribute emergency drinking water. As a follow up to the lessons learned during the event, the Governor's OES convened multi-agency meetings to address the need for improving the process of acquiring and distributing drinking water for future disasters. As a result, draft procedures were developed through the cooperative effort between public, private, and volunteer agencies. The procedures were known as the *Multi-Agency Emergency Response Procedures For Potable Water Procurement & Distribution*. The agencies who participated on the subcommittees or who contributed information towards the original effort in 1994 and 1995 included:

|  |   |
|--|---|
| American Red Cross   | U.S. Army Corps of Engineers            |
| California National Guard                                  | U.S. Public Health Services             |
| California Utilities Emergency Association                 | Federal Emergency Management Agency     |
| California Conference of Directors of Environmental Health | State Dept. of General Services         |
| East Bay Municipal Utility District                        | State Dept. of Water Resources          |
| Helix Water District                                       | State Dept. of Health Services          |
| L.A. County Fire Department                                | Governor's Office of Emergency Services |

### **SECOND EDITION, 2007**

In the aftermath of an Incident of National Significance in August 2005, known as Hurricane Katrina, a group of San Francisco Bay Area water utilities (the Bay Area Security Information Collaborative or BASIC) convened several multi-agency workshops and meetings to review how the various agencies and utilities could manage the delivery of potable drinking water to the general public after a major earthquake in the bay area. During these meetings, the 1<sup>st</sup> Edition materials were evaluated and improved. Additionally, the 2<sup>nd</sup> edition integrated the Standardized Emergency Management System (SEMS, CA Government Code Section 8607) and the National Incident Management System (NIMS, Homeland Security Presidential Directive 5). The utilities and agencies that contributed to this updated version are listed below.

|  |   |
|--|---|
| Alameda County Office of Emergency Services      | Governor's Office of Emergency Services         |
| Alameda County Water District                    | Contra Costa Water District                     |
| American Red Cross                               | San Jose Water Company                          |
| California National Guard                        | San Francisco Public Utilities Commission       |
| California Utilities Emergency Association       | San Mateo County Office of Emergency Services   |
| California Department of Health Services         | Santa Clara Valley Water District               |
| Contra Costa County Office of Emergency Services | Santa Clara County Office of Emergency Services |
| East Bay Municipal Utility District              | Zone 7 Water Agency                             |
| Federal Emergency Management Agency              |   |

## INTRODUCTION

This guidance was created with the intent to clarify the roles and responsibilities of the key stakeholders involved in locating, procuring, and delivering emergency drinking water<sup>1</sup> to populations in California during a local or state emergency. The guidance incorporates the concepts and protocols outlined in the California Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS) and identifies suggested activities to be considered by the water utilities, the five SEMS organizational levels (field, local, operational area, regional and state), and National Response Plan (NRP) agencies. Concepts covered include evaluating the emergency situation, identifying sources of potable water, and procuring the necessary resources to obtain and distribute emergency drinking water. The guidance further includes options or methods to produce or package emergency drinking water for delivery.

The initial seven chapters of this guidance provide the reader with the material needed to support activation of a Multi-Agency Coordination System (MACS) Group specific to a need to coordinate delivery of emergency drinking water during a declared local or state emergency. The Attachments provide the tools necessary to implement the guidance. Attachment A of this guidance outlines the suggested primary and supporting roles and responsibilities that the utilities and all levels of SEMS/NIMS have for the procurement and distribution of alternate emergency drinking water.

### Purpose

This guidance was authored to:

- Outline how to integrate the SEMS and NIMS protocols in responding to an emergency that affects the local water utility water distribution system during a large scale or regional event that triggers a local or state declaration of an emergency.
- Assist local utilities and emergency response organizations to facilitate and develop local protocols for activating a Multi-Agency Coordination System (MACS) Group for emergency drinking water, as needed.
- Provide a common understanding of the key roles and responsibilities and emergency management response structure to be assumed by the local water utility and the other SEMS and NIMS response organizations relative to the procurement and distribution of emergency drinking water.

### Assumptions

- The local water utility and local response organizations understand the Incident Command System concepts, methodology and execution as outlined within the SEMS/NIMS planning, training and activation requirements, including the operations of a MACS group.
- The local water utility and local response organizations have a SEMS/NIMS compliant emergency operations plan prepared and readily available.
- Emergency management activities are accomplished using SEMS/NIMS. SEMS and NIMS have been merged as directed by the Governor's Executive Order S-02-05.

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<sup>1</sup> For the purpose of this document, "alternate emergency drinking water", "emergency potable water" or "emergency drinking water" refer to drinking water that is supplied from an alternate source and/or delivery system.

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## PREPAREDNESS

Successful incident management involves a clear understanding of the roles and responsibilities of an emergency that disrupts the local water utility distribution system. This guidance provides the mechanisms for personnel and organizations to work collectively by offering the tools to enhance preparedness.

### **Implementing the Guidance**

Preparedness organizations at all SEMS/NIMS levels are encouraged to:

- Integrate and coordinate the activities of the involved water utilities and jurisdictions served;
- Establish the standards, guidelines, and protocols necessary to promote interoperability between the utility and other response agencies;
- Document how priorities for resources and other requirements would be determined;
- Establish and coordinate a MACS Group specific to the issue of emergency drinking water with participation to include local water utilities and other response organizations;
- Facilitate MACS Group workshops or meetings to discuss plans and protocols when managing an emergency that disrupts the local water utility's distribution system during a significant or regional event;
- Develop procedures and protocols that translate into specific action-oriented checklists (this may include resource listings; maps, charts, and other pertinent data; mechanisms for notifying staff; processes for obtaining and using equipment, supplies, and vehicles; methods of obtaining mutual aid/assistance; mechanisms for reporting information to organizational work centers and EOCs; and communications operating instructions, including connectivity with private-sector and non-governmental organizations).

## ROLES AND RESPONSIBILITIES

This guidance and the SEMS/NIMS protocols are designed so that local jurisdictional authorities retain command, control, and authority over response. However, **it is critical for users of this guidance to understand that primary responsibilities for the procurement and distribution of emergency drinking water may change as the emergency event evolves.**

The guidance and the SEMS/NIMS protocols allow for flexibility and standardization. Emergency management flexibility recognizes the need to change and adapt incident management and emergency response for an event or incident, due to changes in scope and/or scale over time. Standardization of incident management and emergency response requires coordination and standardization among responders and organizations whose incident management activities are based on a common framework.

The following is a list emergency response levels, including utilities, describing their functions during a regional or significant event that disrupts the flow of potable water through the local water utility distribution system. Each agent listed below may participate in the Multi-Agency Coordination System (MACS) Group established to address drinking water needs of the affected jurisdiction(s). Multi-agency coordination means the participation of agencies and disciplines involved at any level of the SEMS organization working together in a coordinated effort to facilitate decisions for overall emergency response activities, including the sharing of critical resources and the prioritization of incidents.

### Agent:

Local Water Utility  
(Private or Public)

### Function:

- Private water utilities are generally investor-owned and operated. While private utilities are not required to comply with SEMS or NIMS, most have chosen to follow SEMS/NIMS protocols.
- Public water utilities can either be part of a city or county agency, or the utility can be an independently governed special district, not affiliated with a city or county. To be eligible for federal preparedness grants and reimbursement for response related costs following a declared disaster, public water utilities must comply with SEMS and NIMS.
- If the local utility is, or part of, a city or county department, the utility may establish a department operations center and/or report directly into the appropriate city or county EOC.
- Special districts may activate a local EOC, and depending on the number of cities or counties served, the utility may report directly into a city or county EOC, an operational area EOC, or the State OES Regional EOC.
- During an emergency that impacts the normal water distribution system, the local water utility is responsible for procuring and distributing alternate emergency drinking water for populations within the jurisdiction, provided local alternate water sources are available and local utility resources are available to manage it. When the local water utility's capacity to maintain lead responsibility for alternate drinking water supplies is exceeded, utility management may request the support of the city, county or regional Offices of Emergency Services to establish a MACS Group to manage the delivery of emergency water.

- 
- |  |   |
|--|---|
| Local Government (Cities, County or Special Districts) | <ul style="list-style-type: none"><li>• During an emergency, Local Governments operate Local EOCs to coordinate resources and manage operations within the jurisdiction. This may include the distribution of alternate emergency drinking water to affected populations.</li><li>• As requested Local Governments assist the local water utility in procuring and distributing alternate sources of emergency drinking water for populations within its jurisdiction, provided local alternate drinking water sources and supplies are available and Local Government response resources are available and can be dedicated to this responsibility.</li><li>• As needed, Local Government provides assessment information on the need for alternate emergency drinking water to an Operational Area representative (Water Coordinator) who is responsible for water utility communication or coordination.</li><li>• If necessary, Local Governments may request the Operational Area to establish a MACS Group to facilitate requests specific to alternate drinking water.</li></ul> |
| Operational Area                                       | <ul style="list-style-type: none"><li>• Typically led by county management, an Operational Area Emergency Operations Center (OAEOC) may be activated to coordinate the emergency response actions of all jurisdictions within the boundary of the county.</li><li>• Upon request or when local water distribution disruption becomes a priority for the Operational Area, staff may be identified to help coordinate county resources and assist cities, special districts, and local utilities in providing emergency drinking water to the affected population(s). This may include procurement and distribution of emergency drinking water from alternate sources.</li><li>• If necessary, the Operational Area may request the State OES Regional Emergency Operations Center (REOC) to establish a MACS Group to facilitate requests specific to alternate drinking water.</li></ul>  |
| State - Governor's Office of Emergency Services (OES)  | <ul style="list-style-type: none"><li>• As needed, State OES coordinates state and regional resources to assist the Operational Areas. OES operates three Regional Emergency Operations Centers (REOC) and the State Operations Center (SOC).</li><li>• Upon request, or when local drinking water distribution disruption requires State assistance, a Water Coordinator may be established at the REOC or SOC to provide leadership in locating and procuring alternate sources of potable water to be distributed to the affected Operational Areas. The position of Water Coordinator may be assigned a role in the Management, Operations, Planning/Intelligence or Logistics sections of the REOC or SOC, depending on the nature and of the event.</li><li>• As needed, OES may request National Guard, Department of Health Services, or federal assistance in obtaining alternate drinking water sources on behalf of the affected Operational Areas consistent with the National Response Plan.</li></ul>   |

- Federal  
Emergency  
Management  
Agency (FEMA)
- Upon request, or when local water distribution disruption requires federal assistance, FEMA coordinates federal emergency response resources and provides supplemental assistance to State and Local jurisdictions including alternate sources of potable water as requested by the State.

## CONCEPT OF OPERATION

These guidelines employ the processes of the Standardized Emergency Management System (SEMS) which are consistent with the National Incident Management System (NIMS) response and resource management efforts.

### **SEMS/NIMS Overview**

The Standardized Emergency Management System (SEMS) is an operational protocol required by California Government Code Section 8607(a) for managing emergencies and disasters involving multiple jurisdictions or multiple agency responses. Use of SEMS improves the mobilization, deployment, utilization, tracking, and demobilization of needed resources. Use of SEMS facilitates the flow of information and enhances coordination among all responding organizations.

While only SEMS incorporates the California Master Mutual Aid Agreement and the operational area concepts, both SEMS and NIMS incorporate the concepts of the Incident Command System (ICS), integration of existing mutual aid/assistance systems, and use of multi-agency or inter-agency coordination. Local governments, as defined by regulation (cities, counties and special districts), must use SEMS to be eligible for funding of their personnel related response costs under state disaster programs. Local, county, state and tribal governments must comply with NIMS in order to be eligible for federal preparedness grants.

SEMS consists of the following five organizational levels which are activated as necessary:

- Field Response - involves two or more emergency response agencies
- Local Government - involves one city, a county or special district
- Operational Area - involves County, its political subdivisions, and special districts
- Region - involves operational areas within a Mutual Aid Region and OES Regions
- State - involves coordination/allocation of state resources at all levels

While NIMS recognizes the various levels of response within a state, each state's governance is different, NIMS does not provide the detailed reporting relationship as required by the five SEMS levels. This is one of the few places where NIMS varies from SEMS.

Finally, SEMS and NIMS adapted the five standard functions of ICS which are common to all five SEMS organizational response levels. These functions are:

- Management (*referred to as Command at Field Level*)
- Operations
- Planning/Intelligence
- Logistics
- Finance and Administration

### **Utility/SEMS Integration**

The various sizes of the distribution or delivery systems of the thousands of water utilities in the State of California do not fit neatly into the five SEMS levels. Some utilities serve more than a city, some serve multiple counties and others move or distribute water across

multiple counties and even states. To better understand how the water utilities fit into the five SEMS levels, the previous chapter of this guidance listed the roles and responsibilities of the utilities and each of the SEMS levels. **Figure 1, Utility/SEMS Integration** demonstrates the linkages between the utilities of various sizes and the SEMS Levels.

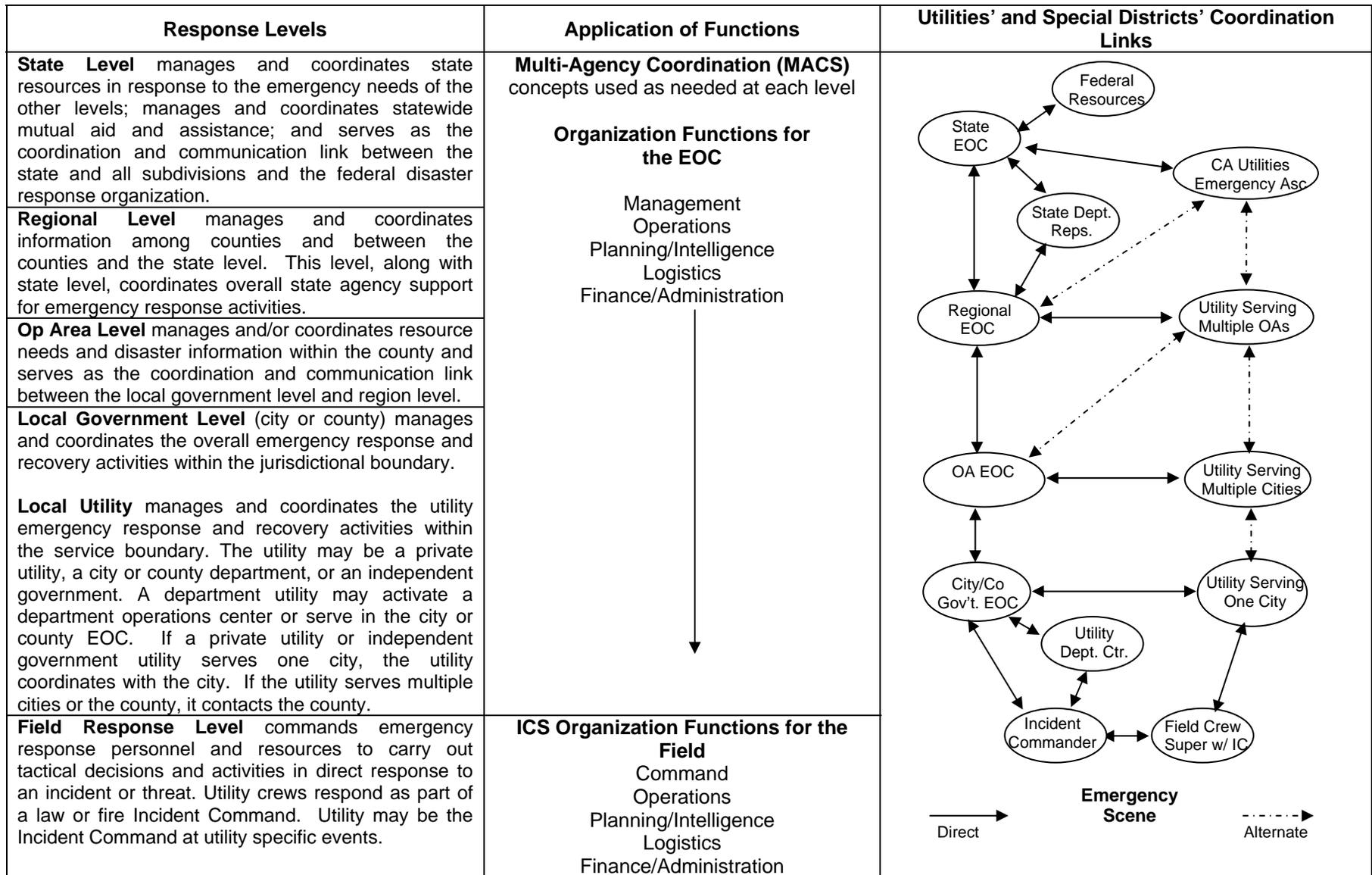


Figure 1: SEMS/Utility Integration

## Information flow

To avoid duplication of efforts and to expedite delivery of alternate emergency drinking water to populations affected by an emergency, it is critical that information regarding the situation be transmitted to the appropriate emergency response level(s). During the initial hours following an emergency it is especially important to ascertain the scale of the emergency and the areas where the existing drinking water supply and distribution system has been directly impacted and/or interrupted by the event. Such information will help facilitate decisions on whether and when to activate the various SEMS/NIMS response level EOCs. **Figure 1** outlines the basic information flow upon which these procedures are dependent. Note: Within the Response Information Management System (RIMS) utility and jurisdictional information should be reported utilizing RIMS situation and/or resource/mission request forms. Where access to RIMS is not available, established local procedures for reporting situation status and requesting resources should be followed.

## Procurement and Distribution Process

Successful implementation of the guidance requires the support of public, private, and volunteer agencies. **Attachment A** of this document identifies the public, private, and volunteer agencies which could play a part in the acquisition and distribution of emergency potable water and identifies specific roles and responsibilities that require action.

- Local Water Utility

**The first priority of the local water utility is to repair and restore the water system infrastructure.** To support this priority, the local water utility's capacity to maintain primary responsibility for the procurement and distribution of alternate drinking water may be exceeded.

Until the capacities for procuring and distributing alternate emergency drinking water exceeds the ability of the local water utility, the utility remains the primary agent responsible for the purchase and distribution of emergency drinking water to populations within their jurisdiction. Should the utility's resources to procure and distribute emergency drinking water become limited (without being exhausted), the utility may contact the appropriate next SEMS response level (city, county or operational area) for assistance. The utility may then direct its available resources towards its first priority (system infrastructure repair and restoration).

- Local (City and County) Government Level

Where the utility is part of the local city or county government, the city or county is the immediate primary agent responsible for the procurement and distribution of emergency potable water to populations within their jurisdiction. While dealing with the impact to its own water system, the city or county may also need to manage requests from private or special district water utility requests for assistance. **The first priority of the city or county water utility is to restore the water system infrastructure.** Should the capacity for procuring and distributing alternate emergency drinking water at the city or county level be exhausted or the available resources are required elsewhere to assist in accomplishing other priorities, the city or county may request Operational Area assistance.

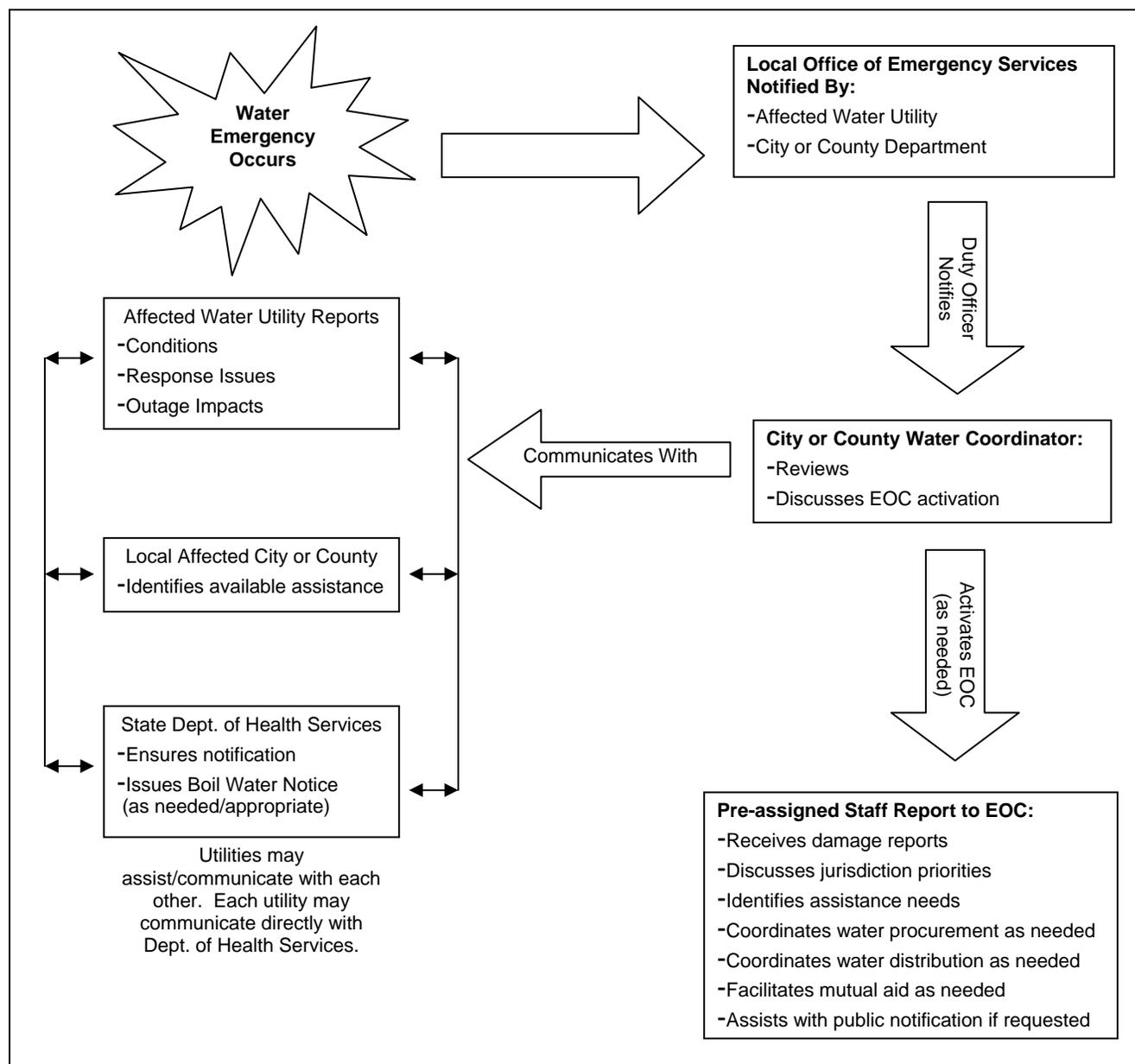
- Operational Area Level

As needed, the Operational Area may assist the local water utility or government in managing the procurement and distribution of alternate drinking water to the affected

local jurisdictions. Should the capacity for procuring and distributing alternate emergency drinking water at the Operational Area Level be exhausted, or the limited resources are required elsewhere to assist in accomplishing other priorities, the Operational Area may request assistance from the State OES Region.

- Regional and State OES Levels

The State OES Regions serve as support to the Operational Areas in the event that the magnitude of the emergency requires resources beyond the limits of the Operational Area and local jurisdiction(s). If the emergency response requires resources beyond the capability of the state, federal resources (coordinated by the Federal Emergency Management Agency (FEMA)) may be requested. Such requests will be made by State OES. **Figure 2** outlines the basic process flow for emergency procurement and distribution of potable water.



**Figure 2: Water Emergency Notification**

## **Drinking Water Coordinator or Technical Specialist**

As the emergency requires, each level EOC may require the establishment of a dedicated Drinking Water Coordinator or Technical Specialist. The position may be assigned a role in the Management, Operations, Planning/Intelligence or Logistics section of the EOC. The specific assignment should be noted in the local emergency operations plan.

At the local level, the Drinking Water Coordinator or Technical Specialist could be staffed by a fire department, public works or water utility personnel. At the Operational Area Level, the Drinking Water Coordinator or Technical Specialist could be staffed by personnel who come in contact with the water utility on a regular basis or have experience in delivery of bulk systems (for example, county health departments, public works, fire department, assigned water utility personnel, or the county department of social services). In the event that sufficient staffing is not available at the local or operational level, a request may be made through the REOC for Emergency Management Mutual Aid (EMMA). At the REOC and SOC levels, the Drinking Water Coordinator could be staffed by OES, Department of Social Services (Care and Shelter), or the Department of Health Services.

The person would be responsible to serve as the primary contact for information from other SEMS Levels, for receiving situation assessments and prioritizing resource allocation specific to drinking water. When necessary, this designated EOC staff person would have the authority to activate a water task group to help establish or assist in the establishment and operation of the alternate emergency drinking water procurement and distribution program. The size, makeup, and specific assignment of the water task group will be dependent on the magnitude of the problem at hand. For reference, **Attachment B** of these procedures contains an example of the Water Task Group designed to support a local water distribution program following the 1994 Northridge Earthquake.

Duties for a Drinking Water Coordinator may include:

1. Serve as primary EOC contact for all drinking water procurement and distribution matters.
2. Coordinate conference calls with other level EOC Drinking Water Coordinators or contacts to assess drinking water needs. This may include the participation in a Multi-Agency Coordinating System (MACS) Group for drinking water to assess and/or prioritize alternate emergency drinking water resources for the affected jurisdictions.
3. Obtain consolidated situation information compiled by the **Plans and Intelligence Section** and other sources. This information would include:
  - Cause and extent of water system damage
  - Estimated duration of system outage
  - Geographical area affected
  - Population affected
  - Actions taken to respond to the service disruption
  - Resources needed to restore system
  - Emergency drinking water needs (quantity and prioritized areas)
4. Work with the affected utilities, prioritize distribution locations and make recommendations to **Planning/Intelligence Chief**.
5. Identify and secure potable water resources with assistance from the **Logistics Section, Procurement** personnel.
6. Identify transportation and equipment needs and secure required resources through the **Logistics Section, Procurement** personnel.
7. Coordinate with CDHS, water utilities, and **EOC Public Information Officer** for appropriate public information announcements and Media interface.

8. Document all information related to expenditures, resource commitments, contracts, and other costs related to procurement and distribution of potable water and provide such information to the ***Finance and Administration Section***.

### **Multi-Agency Coordinating System (MACS) Group for Drinking Water**

When multiple water utilities or local jurisdictions are affected by the disaster a Multi-Agency Coordinating Group or Task Group specific to drinking water may be established. A MACS Group for drinking water could be established at any level of the SEMS organization and include representatives from the affected water utilities, local government and Operational Areas, CDHS, FEMA, California Utilities Emergency Association (CUEA) and volunteer or private organizations as necessary.

The MACS group for drinking water would convene at the highest unaffected SEMS level. If the water emergency conditions are limited to an Operational Area (e.g. Northridge), then the group would meet at the Operational Area. If the event affects multiple Operational Areas, then the MACS Group for drinking water could convene at the State Region OES. For more details on the activation, function and role of the MACS, see the next Chapter.

## **MULTI-AGENCY COORDINATION SYSTEM (MACS) FOR DRINKING WATER**

A Multi-Agency Coordination System (MACS) is a combination of facilities, equipment, personnel, procedures, and communications integrated into a common system with responsibility for coordinating and supporting domestic incident management activities. While direct tactical and operational responsibility for conducting incident management activities rests with the Incident Command, the primary functions of a MACS include the following:

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

The following principal functions and responsibilities can be completed by the Drinking Water MACS Group:

- Ensure each SEMS Level is providing appropriate situational awareness and resource status information related to the assessment of distribution system damage and potable water needs. These duties are specifically outlined in the duties of the Water Coordinator or Technical Specialist.
- Establish priorities in concert with the Field Level Incident Command Posts, water utilities, individual department management, local government or Operational Areas.
- Acquire and allocate resources required in concert with the Field Level Incident Command Posts, water utilities, individual department management, local government or Operational Areas.
- Anticipate and identify future resource requirements.
- Coordinate and resolve policy issues arising from the incident(s) or disaster.
- Provide strategic coordination as required.
- Resolve status information and prioritization of alternate potable water distribution between the affected jurisdictions.

Following an incident, Multi-Agency Coordination System (MACS) entities are also typically responsible for ensuring that improvements in plans, procedures, communications, staffing, and other capabilities necessary for improved incident management are completed. These improvements should also be coordinated with appropriate preparedness organizations, if these organizations are constituted separately.

### **DRINKING WATER MACS GROUP COORDINATOR**

The Drinking Water MACS Group Coordinator serves as a facilitator in organizing and accomplishing the mission, goals and direction of the MACS Group. Depending on whether the MACS for drinking water is at the Operational Area, Region or State Level, the EOC Director of that level will identify the Coordinator to accomplish the following assigned activities:

- a) Facilitate the MACS Group decision process by obtaining, developing and displaying

- situation information.
- b) Fill and supervise necessary unit and support positions within the MACS Group.
  - c) Acquire and manage facilities and equipment necessary to carry out the MACS Group functions.
  - d) Implement the decisions made by the MACS Group.

### **DRINKING WATER MACS GROUP AGENCY REPRESENTATIVES**

The Drinking Water MACS Group includes top management personnel from responsible utilities and jurisdictions, those heavily supporting the effort, and/or those significantly impacted by use of local resources.

The Water MACS Group includes individuals making decisions at the utility, local government, operational area, region and state response levels. The exact title of this point of contact on emergency potable water issues may vary at the utility, local and operational area. At the regional and state level, the person fulfilling the position responsibilities identified in this plan will be known as the Potable Water Coordinator. For practicality and consistency, the same position title of "Potable Water Coordinator" will be used throughout the rest of the document when identifying the responsibility of the point of contact at the utility, local government, operational area, region and state levels.

Drinking Water MACS Agency Representatives involved in a MACS Group must be fully authorized to represent their agency and complete the following functions.

- a) Ensure that current situation and resource status is provided by their agency.
- b) Prioritize incidents by an agreed upon set of criteria.
- c) Determine specific resource requirements by agency.
- d) Determine resource availability for out-of-jurisdiction assignments and the need to provide resources to Local Emergency Operations Centers (LEOC) (e.g., Cities, Special Districts), and Field level Incident Command Posts and/or individual department management and the water utilities.
- e) As needed, designate area or regional mobilization and demobilization centers within their jurisdictions.
- f) Collectively allocate scarce or limited resources to incidents based on priorities.
- g) Anticipate and identify future resource needs.
- h) Review and coordinate policies, procedures and agreements as necessary.
- i) Consider legal/fiscal implications.
- j) Review need for participation by other agencies.
- k) Provide liaison with out-of-the-area facilities and agencies as appropriate.
- l) Critique and recommend improvements to MACS group operations.
- m) Provide personnel cadre and transition to emergency or disaster recovery as necessary.

Drinking Water Multi-Agency Coordinating Group (MACS Group) Agency Representatives at the OES Regional level may include the following participants:

- a) Affected Operational Area Water Coordinator
- b) The Regional Emergency Operations Center Water Coordinator
- c) The State Emergency Operations Center Water Coordinator
- d) California Utilities Emergency Association or the utilities branch at the State

- Emergency Operations Center
- e) California Department of Health Services - the Drinking Water and Environmental Management and Food and Drug Divisions
  - f) Department of Homeland Security – Federal Emergency Management Agency (FEMA)

Recognizing that other public, private and volunteer response organizations will be competing for the same alternate potable water resources, in and adjacent to, the affected operational areas, these following organizations should be included as participants in the Drinking Water MACS Group.

- a) American Red Cross
- b) Salvation Army
- c) California National Guard
- d) other OA Water Coordinators in unaffected Operational Areas
- e) other organizations or agencies as appropriate

If necessary, the MACS Coordinator activates the following units or coordinates with existing EOC functions to support MACS operations.

#### **SITUATION ASSESSMENT UNIT**

The Situation Assessment Unit (this is also referred to in some agencies and EOCs as the Intelligence Unit) in a MACS is responsible for the collection and organization of incident status and situation information. They evaluate, analyze and display information for use by the MACS Group. This unit may be responsible for the following tasks:

- a) Maintain incident situation status including location, type, size, potential for damage, control problems and any other significant information.
- b) Maintain information on environmental issues, cultural and historic resources or sensitive populations and areas.
- c) Maintain information on meteorological conditions and forecast conditions that may have an effect on incident operations.
- d) Request/obtain resources status information from the Resources Unit or agency dispatch sources.
- e) Combine, summarize and display data for all appropriate incidents according to established criteria.
- f) Collect information on accidents, injuries, deaths and any other significant occurrences.
- g) Develop projections of future incident activity.

#### **RESOURCES UNIT**

The Resources Unit, if activated in a MACS, maintains summary information by agency on critical equipment and personnel committed and available within the MACS area of responsibility. Status is kept on the overall numbers of critical resources rather than on individual units. This unit may be responsible for the following tasks:

- a) Maintain current information on the numbers of personnel and major items of equipment committed and/or available for assignment.
- b) Identify both essential and excess resources.
- c) Provide resources summary information to the Situation Assessment Unit as requested.

### **INFORMATION UNIT**

The Information Unit is designated to satisfy the need for regional information gathering. The unit will operate an information center to serve the print and broadcast media and other governmental agencies. It will provide summary information from agency/incident information officers and identify local agency sources for additional information to the media and other government agencies. This unit may be responsible for the following tasks:

- a) Prepare and release summary information to the news media and participating agencies.
- b) Assist news media visiting the MACS facility and provide information on its function. Stress joint agency involvement.
- c) Assist in scheduling media conferences and briefings.
- d) Assist in preparing information materials, etc. when requested by the MACS Group/Coordinator.
- e) Coordinate all matters related to public affairs (VIP tours, etc.).
- f) Act as escort for facilitated agency tours of incident areas, as appropriate.

## RESOURCE MANAGEMENT

Incident management requires carefully managed resources to meet critical incident needs. Resource management must be flexible and scalable in order to support any incident and be adaptable to real-time changes in incident size and scope. Efficient, effective deployment of resources requires that resource management spans the lifecycle of an incident, from preparedness to response to recovery.

From small, single-agency incidents up through Incidents of National Significance, resource management involves coordinating and overseeing the application of tools, processes, and systems that provide incident managers with timely and appropriate resources during an incident. As incident response grows in size or when an incident starts as a large-scale event, local incident managers require resources from other local agencies or jurisdictions, private-sector and non-governmental organizations, state agencies (possibly including resources from other States), and federal agencies (possibly including military support of domestic incidents). Incident resources may include personnel, teams, facilities, equipment, supplies, and funding streams. Resources may support field and command operations through the incident command post (ICP), or function within the multi-agency coordination systems, serving at an emergency operations center or similar site. Resource management systems must be able to adapt to any incident whatever its geographic scale and disciplinary complexity.

When multi-agency coordination entities are established, resource management systems must support adequate communication between the command and coordination functions to manage resources effectively. Incident Command sets incident priorities and makes resource requests. Coordination entities prioritize and coordinate resource allocation and distribution, according to resource availability, needs of other incidents, and other constraints and considerations.

### **Mutual Aid/Assistance**

Water and wastewater utilities have three possible methods of requesting assistance from other utilities, which include Mutual Response Agreements, the California Water/Wastewater Agency Response Network, and the California Master Mutual Aid Agreement.

- **Mutual Response Agreements**

Utilities may enter automatic response agreements between neighboring utilities or utilities of like size and system dynamics located in other parts of the state that can send resources immediately to assist. This aid would provide needed specialized resources to the affected utilities resulting in quick system recovery time. The resources could include public and private resources.

- **California Water/Wastewater Agency Response Network**

Utilities in the state established the California Water/Wastewater Agency Response Network (CalWARN) to improve the flow of mutual aid/assistance among the signatory utilities throughout the state. Resources may be requested directly from one utility to another and not require a declaration of an emergency. Public and private resources are available through the system. The methods for activating the system and accessing resources can be accessed by members on line at [www.calwarn.org](http://www.calwarn.org).

- California Master Mutual Aid Agreement

Cities, counties and special districts who adopted the CA Master Mutual Aid Agreement may access resources through the State OES mutual aid coordination system. The protocols and methods are available from State OES.

## EMERGENCY DRINKING WATER CONSIDERATIONS

When there is a need for emergency potable water, the local water utility and affected city or county work with the State Department of Health Services, Division of Drinking Water and Environmental Management. When there is a “Boil Water” advisory, the public should be advised to bring water to a rapid boil for 1-2 minutes. In the event of any other situation that may require supplying potable water, the local utility, city or operational area EOC may utilize the following options:

### 1. Packaged or Bottled Water

- Water in one gallon plastic containers is by far the most convenient and effective way to initially provide emergency water to the public. A list of approved commercial vendors is maintained by the State Department of Health Services, Food and Drug Branch. During response the list may be made available through the REOC Operations Section Water Coordinator.
- The Regional Emergency Operations Center (REOC) can arrange transportation, if necessary, with state assets. Water and beverage bottlers sometimes offer free bottled water and delivery. Check with the utility, city or operational area Water Coordinator for contacts.
- Note: The State Department of Health Services Drinking Water Program or County Health Department should be consulted prior to the execution of delivery of packaged alternate potable water to ensure compliance with all applicable regulations.

### 2. Bulk Potable Water Deliveries

- Bulk potable water deliveries are for limited use and should only be employed for immediate crisis situations when the first option is not available. Bulk potable water may also be needed for critical facilities such as hospitals, clinics, and other health facilities.
- Portions of the existing potable water system, or nearby systems, may continue to have potable water in their normal distribution systems. These sources are closest and easiest to access and should be used for bulk water sources. Bulk transportation of these resources will require planning and coordination by the local, operational area and region Water Coordinator and/or the Water Task Group.
- National Guard water buffaloes (500 gallon trailers) are available in limited numbers and should only be used to support evacuation efforts and immediate crisis situations. The small volume necessitates that water tenders keep buffaloes filled.
- Note: The State Department of Health Services Drinking Water Program or County Health Department should be consulted prior to the execution of delivery of bulk alternate potable water to ensure compliance with all applicable regulations.

### 3. Water Purification Systems

Commercial portable water purification systems are available where connection to a non-approved water source is available. The State Department of Health Services Drinking Water Program or County Health Department must approve the water source and/or treatment unit to assure that the treatment is sufficient to deal with the level of contamination. The National Guard has limited purification capability which should only be requested when all other options are exhausted.

**ATTACHMENT A**  
**AGENT SPECIFIC AND MACS GROUP**  
**EMERGENCY ACTION CHECKLISTS**

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**ATTACHMENT A-1**

**FIELD RESPONSE LEVEL EMERGENCY ACTION CHECKLIST**

|                    |   |
|--------------------|---|
| Responsible Agent: | <b>FIELD RESPONSE<sup>2</sup></b>   |
| Function:          | Provide assessment of incident to Water Utility Emergency Operations staff and respond as directed by Incident Command and/or individual department management. <sup>3</sup>  |
| Duties:            | <ol style="list-style-type: none"> <li>1. Within the purview of individual agency, assess impact of the incident based on field observations and provide emergency situation reports to the EOC. Critical information would include: <ul style="list-style-type: none"> <li>• Cause and extent of water system damage</li> <li>• Estimated duration of system outage</li> <li>• Geographical area affected</li> <li>• Population affected</li> <li>• Actions taken to restore system</li> <li>• Resources needed to reactivate system</li> <li>• Emergency potable water needs (quantity and prioritized areas)</li> </ul> </li> <li>2. Respond to incident as directed by Incident Command and/or individual department management.</li> <li>3. Request needed resources through EOC and/or through existing mutual aid/assistance agreement systems.<sup>4</sup></li> <li>4. Coordinate with California Department of Health Services (CDHS) District Office, water utilities, and EOC Public Information Office for appropriate public information announcements and Media interface.</li> </ol> |

<sup>2</sup> Field Response Agent(s) may be public or private and include, but are not limited to, water utilities, public works, local law enforcement and fire protection

<sup>3</sup> Regional agencies with field response units may report situation assessments to the Regional Emergency Operations Center (REOC).

<sup>4</sup> Water utilities may directly access the CalWARN system.

**ATTACHMENT A-2**

**WATER UTILITY LEVEL EMERGENCY ACTION CHECKLIST**

|                    |  |
|--------------------|--|
| Responsible Agent: | <b>WATER UTILITY EMERGENCY OPERATIONS MANAGEMENT</b>   |
| Function:          | Provide assessment of incident to the city or county EOC, when activated, in the affected area and coordinate/implement utility restoration and provide alternate source of potable water to affected population.  |
| Duties:            | <ol style="list-style-type: none"> <li>1. Gather the following information: <ul style="list-style-type: none"> <li>• Cause and extent of water system damage</li> <li>• Estimated duration of system outage</li> <li>• Geographical area affected</li> <li>• Population affected</li> <li>• Actions taken to restore system and obtain alternate drinking water</li> <li>• Service area water quality status</li> <li>• Resources needed to reactivate system</li> <li>• Identification, evaluation and prioritization of drinking water need (quantity/location/duration) [minimum 2 gallons per person per day]. (include needs of critical facilities)</li> </ul> <p>See RIMS for situation and mission request forms. Where access to RIMS is not available, established local procedures for reporting situation status and requesting resources should be followed.</p> </li> <li>2. Contact the Local Health Department, California Department of Health Services (CDHS) District Office of Drinking Water. Provide the information gathered above and request situation report for affected areas (including information on boil water order areas).</li> <li>3. Create an Action Plan that evaluates, organizes and implements actions to acquire and distribute alternate drinking water. Include the following information: <ul style="list-style-type: none"> <li>• Identify potable water sources.</li> <li>• Identify methods to secure resources.</li> <li>• Identify staff resources needed to operate water distribution points.</li> <li>• Identify public information notices (coordinate with the CDHS District Office, water utilities, and local utility Public Information Office for appropriate public information announcements and Media interface).</li> <li>• Provide a method to track data on costs incurred in the effort to purchase and distribute potable water.</li> <li>• Identify mutual aid/assistance needs and request the needs through the CalWARN system or through the city or county EOC.</li> </ul> </li> <li>4. Create an Action Plan to provide Water Quality Assurance. Secure information to support utility restoration activities including resources needed to reactivate system.</li> <li>5. Contact the city or county EOC for the jurisdiction served by your utility.</li> </ol> |

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| Responsible Agent: | <b>WATER UTILITY EMERGENCY OPERATIONS MANAGEMENT</b>  |
|                    | <p>(If the utility serves more than one city, this contact may be the Operational Area Emergency Operations Center (OAEOC). Inform the EOC staff of the situation, share the Action Plan from #3 above and identify need for resource support for potable alternate drinking water supplies or mutual aid/assistance necessary for infrastructure repairs.</p> <ol style="list-style-type: none"> <li>6. In coordination with the affected city or county area, identify secure locations for water distribution points (e.g. parks or city halls).</li> <li>7. Participate in the city or county Water Coordinator conference calls as requested.</li> <li>8. Coordinate with other types of utilities upon which your operations are dependent (i.e. electric and telecommunications) for restoration support/priority as needed.</li> <li>9. Coordinate water quality related issues with local health department, CDHS District Office of Drinking Water, and LEOC. Issue "boil water" orders as needed.</li> <li>10. Restore system and obtain CDHS approvals to operate.</li> </ol> |

**ATTACHMENT A-3**

**CITY OR COUNTY LEVEL EMERGENCY ACTION CHECKLIST**

|                    |  |
|--------------------|--|
| Responsible Agent: | <b>CITY OR COUNTY EMERGENCY OPERATIONS CENTER</b>  |
| Function:          | Among other priorities, as needed, assist in coordinating alternate sources of potable water to affected population. Participate in MACS Group calls to prioritize and coordinate alternate potable water requests.  |
| Duties:            | <p>1. Assess impact of the incident based on feedback from the local water utility. Determine the following:</p> <ul style="list-style-type: none"> <li>• Cause and extent of water system damage</li> <li>• Estimated duration of system outage</li> <li>• Geographical area affected</li> <li>• Population affected</li> <li>• Actions taken to restore system and obtain alternate drinking water</li> <li>• Service area water quality status</li> <li>• Resources needed to reactivate system</li> </ul> <p>2. Appoint a “Drinking Water Coordinator” (e.g. Public Works Staff). If qualified staff is not locally available, the city or county EOC may contact the OAEOC and request Emergency Management Mutual Aid (EMMA). The Drinking Water Coordinator determines the need to staff a Drinking Water Task Group or Drinking Water MACS Group and secures resources through the EOC Logistics Section.</p> <p><b><i>The Drinking Water Coordinator or Drinking Water MACS Group Water completes the following duties/tasks:</i></b></p> <p>3. With the local water utility, create an Action Plan that evaluates, organizes and implements actions to acquire and distribute alternate potable water. The Action Plan would consider the following tasks:</p> <ul style="list-style-type: none"> <li>• Identify, evaluate and prioritize drinking water needs (quantity/location/duration) [minimum 2 gallons per person per day], including needs of critical facilities.</li> <li>• Identify potable water sources. (A list of approved commercial vendors is maintained by the Food and Drug Branch of CDHS and is available through the REOC Drinking Water Coordinator, when staffed.)</li> <li>• Identify methods to secure resource.</li> <li>• In coordination with the affected city or county area identify secure locations for water distribution points (e.g. parks or city halls).</li> <li>• Identify staff resources needed to operate water distribution points.</li> <li>• Identify public information notices (coordinate with the CDHS District Office, water utilities, and local utility Public Information Office for appropriate public information announcements and Media interface).</li> <li>• Provide a method to track data on costs incurred in the effort to purchase and distribute potable water.</li> </ul> <p>4. If the situation requires resources beyond the capability of the City or County EOC, contact the Operational Area Emergency Operations Center (OAEOC). Inform the OA of the situation, share the Action Plan from #3 above and identify need for resource support for potable alternate drinking water supplies or mutual aid/assistance necessary for infrastructure repairs. Participate in OAEOC Drinking Water conference calls as</p> |

|                    |  |
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| Responsible Agent: | <b>CITY OR COUNTY EMERGENCY OPERATIONS CENTER</b>  |
|                    | <p>requested). See RIMS for situation and mission request forms. Where access to RIMS is not available, established local procedures for reporting situation status and requesting resources should be followed.</p> <ol style="list-style-type: none"> <li>5. Provide water utilities in the affected area and the OAEOC with situation status and information related to actions to provide alternate potable water supply.</li> <li>6. Provide information to media through the PIO as appropriate. Be sure it is coordinated with the established Joint Information Center, the water utility and the California Department of Health Services.</li> <li>7. Maintain contacts with California Department of Health Services (CDHS) District Office of Drinking Water, Local Health Department, Local Water Utilities, City Public Works, Fire Department, Police Department and other sources to compile situation information including: <ul style="list-style-type: none"> <li>• Cause and extent of potable water system damage</li> <li>• Estimated duration of potable water system outage</li> <li>• Geographical area affected</li> <li>• Population affected</li> <li>• Actions taken to restore potable water system</li> <li>• Resources needed to reactivate potable water system</li> <li>• Emergency potable water needs (quantity and prioritized areas)</li> </ul> </li> <li>8. While in contact with the CDHS District Office of Drinking Water request situation reports for affected areas (including information on boil water order areas).</li> </ol> |

## ATTACHMENT A-4

### OPERATIONAL AREA LEVEL EMERGENCY ACTION CHECKLIST

|                    |   |
|--------------------|---|
| Responsible Agent: | <b>OPERATIONAL AREA EMERGENCY OPERATIONS CENTER</b>   |
| Function:          | Among other priorities, as needed, assist in coordinating alternate sources of potable water to the affected population. Participate in Drinking Water MACS Group calls to prioritize and coordinate alternate potable water requests.  |
| Duties:            | <ol style="list-style-type: none"> <li>1. Assess impact of the incident based on feedback from the city, county, or local water utility. Determine the following: <ul style="list-style-type: none"> <li>• Cause and extent of water system damage</li> <li>• Estimated duration of system outage</li> <li>• Geographical area affected</li> <li>• Population affected</li> <li>• Actions taken to restore system and obtain alternate drinking water</li> <li>• Service area water quality status</li> <li>• Resources needed to reactivate system</li> </ul> </li> <li>2. Appoint a “Drinking Water Coordinator” (e.g. Public Works Staff), as needed. If qualified staff is not locally available, contact the State OES Regional EOC and request Emergency Management Mutual Aid (EMMA).</li> <li>3. The Drinking Water Coordinator determines the need to staff a Drinking Water Task Group or Drinking Water MACS Group and secures resources through the EOC Logistics Section.</li> </ol> <p><b><i>The Drinking Water Coordinator or Drinking Water MACS Group completes the following duties/tasks:</i></b></p> <ol style="list-style-type: none"> <li>4. Establish communications with the affected city and local water utility. Set up routine schedules of contact.</li> <li>5. Where appropriate with the affected local utility, create an Action Plan that evaluates, organizes and implements actions to acquire and distribute alternate potable water. The Action Plan would consider the following tasks: <ul style="list-style-type: none"> <li>• Identify, evaluate and prioritize drinking water needs (quantity/location/duration) [minimum 2 gallons per person per day], including needs of critical facilities.</li> <li>• Identify potable water sources. (A list of approved commercial vendors is maintained by the Food and Drug Branch of CDHS and is available through the REOC Water Coordinator.)</li> <li>• Identify methods to secure resource.</li> <li>• In coordination with the affected city or county area, identify secure locations for water distribution points (e.g. parks or city halls).</li> <li>• Identify staff resources needed to operate water distribution points.</li> <li>• Identify public information notices (coordinate with the CDHS District Office, water utilities, and local utility Public Information Office for appropriate public information announcements and Media interface).</li> <li>• Provide a method to track data on costs incurred in the effort to purchase and distribute potable water.</li> </ul> </li> <li>6. Coordinate with local health department, CDHS District Office of Drinking Water, water utilities and media for issuance of Boil Water Notice(s).</li> </ol> |

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| Responsible Agent: | <b>OPERATIONAL AREA EMERGENCY OPERATIONS CENTER</b>   |
|                    | <ol style="list-style-type: none"> <li>7. If the situation requires resources beyond the capability of the Operational Area EOC, contact the State OES Region Emergency Operations Center (REOC). Inform OES of the situation, share the Action Plan from #5 above, and identify need for resource support for potable alternate drinking water supplies or mutual aid/assistance necessary for infrastructure repairs. See RIMS for situation and mission request forms. Where access to RIMS is not available, established local procedures for reporting situation status and requesting resources should be followed.</li> <li>8. Participate in Drinking Water phone conferences, as established.</li> <li>9. Provide water utilities in the affected area and the Regional EOC with situation status and information related to providing an alternate potable water supply.</li> <li>10. Provide information to media as appropriate. Be sure it is coordinated with any established Joint Information Center, the affected water utility and the California Department of Health Services.</li> <li>11. Maintain contacts with California Department of Health Services (CDHS) District Office of Drinking Water, local health department, Local affected water utilities, public works, fire department, law enforcement and other sources to compile situation information including: <ul style="list-style-type: none"> <li>• Cause and extent of potable water system damage</li> <li>• Estimated duration of potable water system outage</li> <li>• Geographical area affected</li> <li>• Population affected</li> <li>• Actions taken to restore potable water system</li> <li>• Resources needed to reactivate potable water system</li> <li>• Emergency potable water needs (quantity and prioritized areas)</li> </ul> </li> <li>12. While in contact with CDHS District Office of Drinking Water request situation reports for affected areas (including information on boil water order areas).</li> </ol> |

## ATTACHMENT A-5

### STATE OES REGION LEVEL EMERGENCY ACTION CHECKLIST

|                    |   |
|--------------------|---|
| Responsible Agent: | <b>STATE OES REGION LEVEL EMERGENCY OPERATIONS CENTER</b>   |
| Function:          | Among other priorities, as needed, assist the Operational Area in coordinating alternate sources of potable water to affected population. This may be achieved by establishing a Drinking Water MACS Group to prioritize and coordinate alternate potable water requests.   |
| Duties:            | <ol style="list-style-type: none"> <li>1. Assess impact of the incident based on feedback from the local water utility, Operational Area, Utility Branch, CDHS, and other available information. Determine the following: <ul style="list-style-type: none"> <li>• Cause and extent of water system damage</li> <li>• Estimated duration of system outage</li> <li>• Geographical area affected</li> <li>• Population affected</li> <li>• Actions taken to restore system and obtain</li> <li>• Service area water quality status</li> <li>• Resources needed to reactivate system</li> </ul> </li> <li>2. Appoint a “Drinking Water Coordinator”, as needed. If qualified staff is not locally available, request assistance through Emergency Management Mutual Aid (EMMA).</li> <li>3. The Drinking Water Coordinator determines the need to staff a Water Task Group or Drinking Water MACS Group and secures resources through the EOC Logistics Section.</li> </ol> <p><b><i>The Drinking Water Coordinator or Drinking Water MACS Group complete the following duties/tasks:</i></b></p> <ol style="list-style-type: none"> <li>4. As needed, establish a Drinking Water Multi-Agency Coordinating System (MACS) Group to prioritize and coordinate requests for alternate potable water resource to the affected Operational Area(s) within the Region. The MACS membership should include the Drinking Water Coordinators from the affected utilities, the appropriate Operational Areas, CDHS, CUEA, State OES SOC, and FEMA if necessary.</li> <li>5. If activating a Drinking Water MACS at the Region, establish communications with the affected Operational Areas and local water utility(ies). Set up routine schedules of contact.</li> <li>6. Review existing Action Plans. Evaluate, organize and implement actions to support the Operational Area efforts to acquire and distribute alternate potable water. The Action Plan would consider the following tasks: <ul style="list-style-type: none"> <li>• Identify, evaluate and prioritize drinking water needs (quantity/location/duration) [minimum 2 gallons per person per day], including the needs of critical facilities.</li> <li>• Identify potable water sources. (A list of approved commercial vendors is maintained by the Food and Drug Branch of CDHS and is available through the REOC Water Coordinator.)</li> <li>• Identify methods to secure resource.</li> <li>• In coordination with the affected operational area, identify secure locations to serve as drinking water distribution points (e.g. parks or city halls).</li> </ul> </li> </ol> |

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|--------------------|--|
| Responsible Agent: | <b>STATE OES REGION LEVEL EMERGENCY OPERATIONS CENTER</b>  |
|                    | <ul style="list-style-type: none"> <li>• Identify staff resources needed to operate water distribution points.</li> <li>• Identify public information notices (coordinate with the CDHS District Office, water utilities, and local utility Public Information Office for appropriate public information announcements and Media interface).</li> <li>• Provide a method to track data on costs incurred in the effort to purchase and distribute potable water.</li> </ul> <p>7. If the situation requires resources beyond the capability of the State OES Region, contact the State Operations Center (SOC) and the CA Utilities Emergency Association (CUEA) Utilities Operations Center (UOC). Provide information on the situation, share the Action Plan from #6 above and identify the need for resource support for alternate drinking water or mutual aid/assistance requests necessary for infrastructure repairs. See RIMS for situation and mission request forms. Where access to RIMS is not available, established local procedures for reporting situation status and requesting resources should be followed.</p> <p>8. Participate in Drinking Water phone conferences as established.</p> <p>9. Provide water utilities in the affected area with situation status and information related to providing an alternate potable water supply.</p> <p>10. Maintain contacts with California Department of Health Services (CDHS) District Office of Drinking Water, Operational Areas, Local Water Utilities, and other sources to compile situation information including:</p> <ul style="list-style-type: none"> <li>• Cause and extent of potable water system damage</li> <li>• Estimated duration of potable water system outage</li> <li>• Geographical area affected</li> <li>• Population affected</li> <li>• Actions taken to restore potable water system</li> <li>• Resources needed to reactivate potable water system</li> <li>• Emergency potable water needs (quantity and prioritized areas)</li> </ul> <p>11. While in contact with CDHS District Office of Drinking Water request situation report for affected areas (including information on boil water order areas).</p> |

## ATTACHMENT A-6

### STATE OPERATIONS CENTER LEVEL EMERGENCY ACTION CHECKLIST

|                    |   |
|--------------------|---|
| Responsible Agent: | <b>STATE OPERATIONS CENTER</b>  |
| Function:          | Among other priorities, as needed, assist in coordinating alternate sources of potable water to affected population and assist in coordinating and implementing strategies to restore potable water system infrastructure. This is achieved through coordination with the Regional Emergency Operations Center (REOC).  |
| Duties:            | <ol style="list-style-type: none"> <li>1. Assess impact of the incident based on feedback from the REOC, Utility Branch, CDHS, and other available information. Determine the following: <ul style="list-style-type: none"> <li>• Cause and extent of water system damage</li> <li>• Estimated duration of system outage</li> <li>• Geographical area affected</li> <li>• Population affected</li> <li>• Actions taken to restore system and obtain alternate drinking water</li> <li>• Service area water quality status</li> <li>• Resources needed to reactivate system</li> </ul> </li> <li>2. Appoint a “Drinking Water Coordinator”, as needed (e.g. OES, CUEA or CDHS staff). If qualified staff is not locally available, request assistance through Emergency Management Mutual Aid (EMMA).</li> <li>3. The Drinking Water Coordinator determines the need to staff a Water Task Group or Drinking Water MACS Group and secures resources through the EOC Logistics Section.</li> </ol> <p><b><i>The Drinking Water Coordinator or Drinking Water MACS Group complete the following duties/tasks:</i></b></p> <ol style="list-style-type: none"> <li>4. As needed, establish a Drinking Water Multi-Agency Coordinating System (MACS) Group to prioritize and coordinate requests for alternate potable water resources to the affected areas. MACS membership may include the Drinking Water Coordinators from the affected Operational Area EOCs, CDHS, CUEA, State OES SOC, and FEMA if necessary.</li> <li>5. If activating a MACS at the state level, establish communications with the affected REOCs, Operational Areas and local water utility. Set up routine schedules of contact.</li> <li>6. Review existing Action Plans. Evaluate, organize and implement actions to support the REOC efforts to acquire and distribute alternate potable water. The Action Plan would consider the following tasks: <ul style="list-style-type: none"> <li>• Identify, evaluate and prioritize drinking water needs (quantity/location/duration) [minimum 2 gallons per person per day]. including the needs of critical facilities.</li> <li>• Identify potable water sources. (A list of approved commercial vendors is maintained by the Food and Drug Branch of CDHS and is available through the REOC Water Coordinator.)</li> <li>• Identify methods to secure resources.</li> <li>• in coordination with the affected city or county area, identify secure locations for water distribution points (e.g. parks or city halls).</li> <li>• Identify staff resources needed to operate water distribution points.</li> </ul> </li> </ol> |

|                    |   |
|--------------------|---|
| Responsible Agent: | <b>STATE OPERATIONS CENTER</b>  |
|                    | <ul style="list-style-type: none"> <li>• Identify public information notices (coordinate with the CDHS District Office, water utilities, and local utility Public Information Office for appropriate public information announcements and Media interface).</li> <li>• Provide a method to track data on costs incurred in the effort to purchase and distribute potable water.</li> </ul> <ol style="list-style-type: none"> <li>7. If the situation requires resources beyond the capability of the CUEA or State OES contact FEMA inform them of the situation, share the Action Plan from #6 above and identify need for alternate water resources.</li> <li>8. For mutual aid/assistance for infrastructure repair, contact the EMAC Coordinator, inform them of the situation, share the Action Plan from #6 above and identify need for the appropriate mutual aid/assistance assistance.</li> <li>9. Provide the Regional EOC with situation status and information related to actions to provide alternate potable water supply.</li> <li>10. Maintain contacts with California Department of Health Services (CDHS) District Office of Drinking Water, Operational Areas, Local Water Utilities, and other sources to compile situation information including: <ul style="list-style-type: none"> <li>• Cause and extent of potable water system damage</li> <li>• Estimated duration of potable water system outage</li> <li>• Geographical area affected</li> <li>• Population affected</li> <li>• Actions taken to restore potable water system</li> <li>• Resources needed to reactivate potable water system</li> <li>• Emergency potable water needs (quantity and prioritized areas)</li> </ul> </li> <li>12. While in contact with CDHS District Office of Drinking Water request situation report for affected areas (including information on boil water order areas).</li> </ol> |

**ATTACHMENT A-7**

**CA DEPARTMENT OF HEALTH SERVICES EMERGENCY ACTION CHECKLIST**

|                    |   |
|--------------------|---|
| Responsible Agent: | <b>CALIFORNIA DEPARTMENT OF HEALTH SERVICES (CDHS)<br/>DIVISION OF DRINKING WATER AND ENVIRONMENTAL<br/>MANAGEMENT (DDWEM) FOOD AND DRUG BRANCH (FDB)</b>   |
| Function:          | (1) Ensure the safety and reliability of the public (piped) water supply.<br>(2) Ensure the safety of interim (emergency) water supply (i.e. bottled and hauled water).   |
| Duties:            | <ol style="list-style-type: none"> <li>1. Evaluate the safety of the public water supply in the impacted area to determine the need for “boil water” orders; issue boil water orders in coordination with water utility and local health department.</li> <li>2. Through field investigation or other methods, assess damage to water utilities and related water outages. Determine the anticipated duration and estimated population affected by outages (in coordination with State OES Utilities Branch / California Utilities Emergency Association (CUEA). Provide this information to the REOC and SOC. See RIMS for situation and mission request forms. Where access to RIMS is not available, established local procedures for reporting situation status and requesting resources should be followed.</li> <li>3. Provide information to the REOC and SOC on the issuance of boil water orders and on areas of water outages where alternate potable water supplies (bottled/hauled) may be needed (in coordination with CUEA).</li> <li>4. Oversee the restoration of public potable water systems (reliability and safety) and approve the lifting of boil orders.</li> <li>5. Assist CUEA in identifying the needs of impacted potable water systems for assistance from other utilities (i.e. electrical, telecommunications, etc.) for restoration support prioritization of service, and mutual aid/assistance from other non-affected water systems, including manpower, equipment and supplies. Provide this information to the REOC and SOC.</li> <li>6. Assist in the coordination of water restoration priorities.</li> <li>7. Assist the State OES Water Coordinator (if staffed) in the identification of alternate water supplies including non impacted water systems, water bottlers and haulers, and private water sources (approved private wells and springs) by providing lists of these resources to the REOC and SOC.</li> <li>8. Ensure that water vending machines in areas impacted by boil water orders are not used.</li> <li>9. Assist the Local Health Department in identification of individual and small (non-public) water systems impacted by the emergency, and advise the Water Coordinator of potential alternate water supply needs. Provide procedures for well disinfection, water sampling and lists of approved laboratories on request to local health departments.</li> <li>10. Coordinate with local health officials to identify waterborne disease outbreaks related to the emergency, and identify and correct the cause of such outbreaks.</li> <li>11. Assist Public Information Officers at all levels with public communication and notices related to water outages.</li> <li>12. Participate and support MACS activities.</li> </ol> |

## Attachment A-8

### CA Utilities Emergency Association Emergency Action Checklist

|                    |  |
|--------------------|--|
| Responsible Agent: | <b>STATE OES UTILITIES BRANCH / CALIFORNIA UTILITIES EMERGENCY ASSOCIATION (CUEA)</b>  |
| Function:          | Collect damage assessments, coordinate mutual aid/assistance requests, and facilitate the restoration of water utilities.  |
| Duties:            | <ol style="list-style-type: none"> <li>1. Collect damage assessments of water utilities and related water outages. Determine the anticipated duration and estimated population affected by outages (in coordination with CDHS).</li> <li>2. Provide information to the REOC (if activated) and SOC on geographical areas of water outages and approximate populations affected where alternate potable water supplies (bottled/hauling) may be needed and be prepared to assist in distribution/delivery operations of those supplies to the affected population as requested (in coordination with CDHS). See RIMS for situation and mission request forms. Where access to RIMS is not available, established local procedures for reporting situation status and requesting resources should be followed.</li> <li>3. Act as Point of Contact in Identifying needs and facilitate coordination for impacted potable water systems with other utilities (i.e. electrical, telecommunications, etc.) for:             <ul style="list-style-type: none"> <li>• Restoration support</li> <li>• Assist in prioritization of service and mutual aid/assistance from non-affected potable water systems</li> <li>• Assist in damage assessment and restoration, including personnel, equipment and supplies</li> </ul> </li> <li>4. Assist water utilities regarding facilitation of security access, incident command post interface, etc.</li> <li>5. Assist in the coordination of potable water restoration priorities.</li> <li>6. Provide statewide assistance in coordination and representation for all utilities (power, water, telecommunication, pipelines, etc.) on emergency related issues.</li> <li>7. Participate and support MACS Group activities.</li> </ol> |

**ATTACHMENT A-9**

**CA NATIONAL GUARD EMERGENCY ACTION CHECKLIST**

|                    |   |
|--------------------|---|
| Responsible Agent: | <b>CALIFORNIA NATIONAL GUARD (CNG)</b>  |
| Function:          | Coordinate Transportation of CNG resources to provide distribution of bottled/hailed water.   |
| Duties:            | <ol style="list-style-type: none"><li>1. On order, transport/deliver bottled water from OES established collection sites to predetermined distribution sites in the area of operations.</li><li>2. Be prepared to assist in distribution/delivery operations to the affected population.</li><li>3. Be prepared to provide engineer equipment/personnel support to assist water utilities in restoring water distribution systems (when requested).</li><li>4. Be prepared to provide Reverse Osmosis Water Purification Units (ROWPUs) with operators to designated sites.</li></ol> |

**NOTE:**

In the event of a catastrophic incident requiring activation of multiple CNG units, the CNG will not be able to provide potable water distribution by water buffalo. The CNG will be restricted to provide distribution of bottled water only.

**ATTACHMENT A-10**

**FEDERAL EMERGENCY MANAGEMENT AGENCY EMERGENCY ACTION CHECKLIST**

|                    |  |
|--------------------|--|
| Responsible Agent: | <b>U.S. DEPARTMENT OF HOMELAND SECURITY - FEDERAL EMERGENCY MANAGEMENT AGENCY (DHS-FEMA)</b>   |
| Function:          | The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) provides DHS-FEMA with the authority to supplement state and local disaster relief and recovery efforts. Under a Presidential emergency or disaster declaration, the federal Emergency Response Team (ERT), under the direction of the Federal Coordinating Officer, provides supplemental assistance to state and local governments  |
| Duties:            | At the request of the State, DHS-FEMA, in coordination with agencies and organizations such as the American Red Cross, General Services Administration, and U.S. Army Corps of Engineers may provide supplemental sources of potable water to states, local governments and communities. Duties may include:<br><br><ol style="list-style-type: none"><li>1. Technical assistance with the identification of potable water needs and resources.</li><li>2. Participation in a multi agency coordination entity established for the purpose of prioritizing emergency response resources, including potable water, over multiple jurisdictions.</li><li>3. Coordinating the establishment of potable water staging and distribution sites.</li><li>4. Delivering potable water to State staging areas.</li><li>5. Distributing potable water to impacted communities.</li><li>6. Procuring supplemental water purification equipment, supplies and materials.</li></ol> |
| References:        | The National Response Plan<br>National Incident Management System<br>Robert T. Stafford Disaster Relief and Emergency Assistance Act,  |

**ATTACHMENT A-11**

**AMERICAN RED CROSS EMERGENCY ACTION CHECKLIST**

|                    |  |
|--------------------|--|
| Responsible Agent: | <b>AMERICAN RED CROSS</b>  |
| Function:          | Provide needs assessment for shelter and distribution point potable water requirements to Local Emergency Operations Center (LEOC) and assist in the distribution of alternate potable water supply.   |
| Duties:            | <ol style="list-style-type: none"><li>1. Assist LEOC in identifying bottled and hauled potable water needs.</li><li>2. Place requests for specific amounts (bottled and hauled water) and identify delivery sites (mass care facilities and staging areas) to LEOC.</li><li>3. Assist LEOC in the distribution of alternate potable water supplies at ARC mass care facilities (shelters, fixed and mobile feeding sites).</li></ol> |

## ATTACHMENT B

### SAMPLE LOCAL DRINKING WATER DISTRIBUTION PLAN

#### Provided by L.A. COUNTY FIRE DEPARTMENT

*The following is an actual Drinking Water Distribution Program implemented by the Los Angeles County Fire Department in response to the Northridge Earthquake of January 17, 1994. The strategies and procedures outlined below are offered as an example for local jurisdictions to use in developing their own emergency drinking water distribution programs. Emergency drinking water distribution programs may vary dependent on the severity of the emergency situation and local conditions.*

#### **BACKGROUND:**

The Northridge earthquake of January 17, 1994 inflicted severe damage to the water distribution grids and the major water supply system serving the Santa Clarita Valley. It would take three weeks to fully restore the quantity and quality of water to the community. A community of some 150,000 people were under orders to boil water, if they had service at all. While recovery efforts were well under way, people needed a reliable supply of safe drinking water in order to travel to work, and send their children to school. All other efforts to recover from the devastation were at risk without dependable water service.

Under the direction of County Chief Administrative Officer, and Fire Chief, the Drinking Water Distribution Group was formed. A team of four Fire Prevention Inspectors from Special Units, their Captain and a Battalion Chief were dispatched to organize and manage this unusual mission. Over the next eighteen days, the group worked around the clock to develop a team of two hundred people who provided bottled water from up to twenty-three distribution sites. Over an eighteen day mission, the group distributed nearly two million gallons of bottled drinking water to the citizens of the Santa Clarita Valley. This guideline reflects the skills learned during that mission.

#### **A. TACTICAL GUIDELINES:**

1. Establish staff positions:
  - a. Group Supervisor
  - b. Water Company Coordinator
  - c. Community Coordinator
  - d. Water Staging Manager
  - e. Water Distribution Manager
  - f. Distribution Site Managers
  - g. Camp Crew Coordinators and crews
  - h. Planning Section (for independent operation)
  - i. Logistics Section (for independent operation)

2. Determine water resources needed and secure resources.

Is the community in need of water for domestic use, personal hygiene and sanitation, as well as for drinking? Potable water tenders will, supply water for domestic uses, minimizing the requirement for bottled water. Order the type and volume of resources needed, including, but not limited to:

- a. Bottled water.
  - b. Potable water tenders.
  - c. Potable tanks and piping.
  - d. Water purification units.
  - e. Cross connections to other water systems.
3. Establish a water staging area that will accommodate the resources ordered.
  4. Order the equipment needed to support the mission of the group, including, but not limited to:
    - a. Portable radios with batteries and chargers.
    - b. Tactical radio frequencies.
    - c. Cellular telephones with batteries and chargers.
    - d. Flat-bed trailers with tractors and drivers.
    - e. Fork lifts with operators.
    - f. Fuel for equipment.
    - g. Word processing computer.
    - h. Fax machine with phone line.
    - i. Photo-copy machine.
    - j. Plans or communications trailer.
  5. Assure proper documentation of events at all levels of the operation.
  6. Assure proper reporting of situation, progress and needs to the Incident Commander, the Fire Department Communications Center, the Fire Department Emergency Command Center, the County Emergency Operations Center, and any community or city Emergency Operations Centers.
  7. Establish a schedule for relief to assure a maximum working shift of twelve hours for all personnel assigned to the unit.

**B. STRATEGIC GUIDELINES:**

The operation of the distribution process, once the organization is established, and product has been ordered, is outlined below:

1. Truckloads of bottled water are delivered to the staging area by contract vendors.
2. Trucks are immediately unloaded by forklift to allow them to return for another load without delay.
3. Pallets of water are stored on the ground in staging.
4. Pallets of water are loaded by forklift onto flat bed trucks.
5. When orders are received, the flatbed trucks filled with pallets of water are dispatched by the Staging Manager to the distribution sites.
6. One Camp Crew is dispatched concurrently to unload the truck at the distribution

sites. Moving the forklifts was not practical. Many sites did not have enough room to work.

7. The Distribution Site Crew loads one box (six gallons) of water in the vehicles as they pass through the site. More was given upon request. The lines moved faster by keeping people in their cars.

**C. FACILITIES:**

1. Establish a receiving and distribution point for water. A Water Receiving and Distribution Point shall be opened in or near an established incident base. Priorities for choosing a Water Receiving and Distribution Point include:
  - a. 200' by 200' minimum.
  - b. Paved surface.
  - c. Access restricted by curbs,
  - d. Electricity and phone service, if possible.
  - e. Location accessible to major routes of transportation into the area, and into the community.
  - f. Lot with clear access to tractor-trailer rigs.
  - g. Large parking lots of shopping areas, schools, or recreational facilities may work well
  
2. Establish Water Distribution Sites as needed. Priorities for choosing Water Distribution Sites include:
  - a. 100' by 100' minimum.
  - b. Surface: Paved.
  - c. Access restricted by curbs.
  - d. Electricity and phone service preferred.
  - e. Central and accessible to the community in need.
  - f. Parking lots of schools and recreation facilities work best; shopping areas are less desirable.
  - g. Location near public safety facilities such as fire stations, medical and law enforcement installations is discouraged. The operational efficiency of these facilities is reduced by people in line to receive their water.
  
3. Criteria for selection of Distribution Site locations:
  - a. Safety of Staff. (Protection from traffic hazards and any hostile environment).
  - b. Areas of population density in need of water.
  - c. Proximity to elder population.
  - d. Areas that are geographically remote.
  - e. Areas isolated by disaster.
  - f. Sites shall be accessible to delivery trucks.

## APPENDIX 1

### CONTACTS

If there are any questions regarding the information in this Plan, please feel free to contact one of the following:

|  |  |
|--|--|
| California Utilities Emergency Association<br><b>Don Boland</b><br>Executive Director<br>(916) 845-8517<br>3650 Schriever Avenue<br>Mather, CA 95655 | Governor's Office of Emergency Services<br><b>Steve DeMello</b><br>Preparedness Branch, Chief<br>(916) 845-8793<br>3650 Schriever Avenue<br>Mather, CA 95655 |
|--|--|