Emergency Response Plan 2022 DRAFT

Crestline Village Water District
March 29, 2022

Prepared by
Albert A. Webb Associates

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SECTION 1 - CWS and ERP Information

PWSID	CA3610015
Street Address	777 Cottonwood Drive
City, State Zip Code	Crestline, CA 92325
Phone number	909-338-1727
Population Served	7,542 (2010)
Prepared by	Albert A. Webb Associates
Reviewed by	
Date completed	

1.1 Plan Distribution

Because of the sensitive nature of the information contained in this Emergency Response Plan (ERP), an access control protocol has been established under the direction of the Crestline Village Water District (CVWD) staff. Distribution of the ERP is limited to those individuals directly involved in CVWD's emergency planning and response activities. The ERP copies are numbered prior to distribution, and recipients are required to sign and date a statement that includes their ERP number and their agreement not to reproduce the ERP without permission from the CVWD General Manager. A secure copy of the ERP is maintained in an off-premises location, known to CVWD's General Manager, in the event that the utility's copies cannot be accessed.

RECIPIENT/TITLE	DISTRIBUTED BY	DATE
Jeanene Weiss, Office Manager		
Steve Wood, Field Supervisor		
David Sale, Water Quality Specialist		
Albert A. Webb Associates/Water Resources Department		

RECIPIENT/TITLE	DISTRIBUTED BY	DATE

1.2 Change History

DESCRIPTION OF CHANGE	NAME/TITLE	DATE

1.3 Plan Overview

This ERP is organized into 10 sections and appendices, as described below:

Section 1: CWS and ERP Information – Includes the plan distribution, change history and plan overview.

Section 2: Introduction and Utility Information: Describes the purpose, goals, regulatory requirements, relationship of ERP with other documents. Section 2 also provides information on the utility personnel and facilities, industrial chemical storage facilities, available safety material and key local services.

Section 3: Resilience Strategies: Contains strategies and resources to improve the resilience of the water system including physical security and cybersecurity. This section also includes the Incident Command System and communication information.

Section 4: Emergency Plans and Procedures: This section contains the core response plans and procedures that can be implemented in the event of a malevolent, accidental, or natural hazard that threatens the water system.

Section 5: Water Quality Sampling: Includes information and procedures regarding water quality sampling procedures and equipment. Also provides information on available laboratory resources in California.

Section 6: Mitigation Actions: This section includes actions, procedures and equipment which can obviate or significantly lessen the impact of a malevolent act or natural hazard of the public health and the safety and supply of drinking water provided to the community.

Section 7: Detection Strategies: Contains strategies that can aid in the detection of malevolent acts or natural hazards that threaten the security or resilience of CVWD.

Section 8: Emergency Response, Recovery and Termination: Describes the three phases of an emergency: response, recovery, and termination. General actions and guidance are provided for each phase, and these procedures should be used in conjunction with the specific actions plans.

Section 9: Emergency Response Plan Approval, Update, Training and Exercises: Describes the emergency response training program and the ERP review, approval, and update process.

Section 10: References and Resources

Appendices
Action Plans
A. Water Quality Sampling
B. Facility Photo Inventory
C. Contact Information

D. Public Notices and Press Releases
E. Action Plans
F. Incident Reports and Forms
G. Water Quality Emergency Notification Plan

SECTION 2 - Introduction and Utility Information

2.1 Introduction

This section presents the purpose, goals, requirements, access control, and plan overview of the Emergency Response Plan, ERP, for CVWD.

2.1.1 Purpose

The purpose of this ERP is to provide CVWD with a standardized response and recovery protocol to prevent, minimize, and mitigate injury and damage resulting from emergencies or disasters of man-made or natural origin.

The ERP also describes how CVWD will respond to potential threats or actual terrorist scenarios identified in the risk and resilience assessment (RRA), as well as additional emergency response situations. Included in this ERP are specific Action Plans (Aps) that will be utilized to respond to events and incidents.

2.1.2 Goals

The goals of this Emergency Response Plan (ERP) are to:

- Rapidly restore water service after an emergency.
- Ensure adequate water supply for fire suppression.
- Minimize water system damage.
- Minimize impact and loss to customers.
- Minimize negative impacts on public health and employee safety.
- Provide emergency public information concerning customer service.

2.1.3 Requirements

This ERP has been designed to comply with Section 1433(b) of the Safe Drinking Water Act as amended by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Public Law 107-188, Title IV – Drinking Water Security and Safety) and the America's Infrastructure Act of 2018 (AWIA). CVWD has provided the required certification to the EPA that this emergency response plan incorporates the results of the RRA completed for the system and includes plans, procedures, and identification of equipment that can be implemented or utilized in the event of a terrorist attack on the water system.

CVWD will maintain a copy of the ERP for five years after submission of the EPA certification, as required by the Bioterrorism Act.

Guidance from the following EPA guidance documents is incorporated in this ERP.

- "Community Water System Emergency Response Plan Template and Instructions" (EPA Office of Water (EPA 816-B-19-003)

- "State Water Resources Control Board Division of Drinking Water Emergency Response Plan Guidance for Public Drinking Water Systems Serving a population of 3,300 or more" (February 2015)
- "Guidance for Water Utility Response, Recovery & Remediation Actions For Man-Made And / Or Technological Emergencies" (EPA 810-R-02-001).
- "Large Water System Emergency Response Plan Outline: Guidance to Assist Community Water Systems in Complying with the Public Health Security and Bioterrorism Preparedness and Response Act of 2002" (EPA 810-F-03-007, July 2003).
- "Response Protocol Toolbox: Planning for and Responding to Drinking Water Contamination Threats and Incidents" (EPA-817-D-03-001 to 007, Interim Final – December 2003).
- "Small and Medium Water System Emergency Response Plan Guidance to Assist Community Water Systems in Complying with the Public Health Security and Bioterrorism Preparedness and Response Act of 2002".

2.1.4 Relationship Between ERP and Other Plans

This Emergency Response Plan (ERP) is intended to assist CVWD's managers and staff in responding to emergencies and malevolent acts (i.e., attacks) that affect the water system. The ERP is supplemented and referenced by the plans, procedures, policies, and agreements listed below.

1. Risk Management Plan (RMP) – This document contains response to hazardous chemical releases.
2. Material Safety Data Sheets (MSDS) – These are standard data sheets that may contain information regarding responses to specific chemical releases as well as additional useful information on the chemical.
3. Crestline Village Water District's Water Sampling Sampling Plan – This document provides useful information to support the contamination of event stages evaluation as well as provide information for the baseline analysis or provide conditions that are considered normal for CVWD.
4. Water Sample Procedures – Included in Appendix A.

2.2 Utility Overview

Utility Information	
PWSID	CA3610015
Utility name and address	Crestline Village Water District, 777 Cottonwood Drive, Crestline, CA 92325
Owner	Public Utility – Crestline Village Water District

Utility Information	
Directions to utility from major roadway, include lat./long. coordinates	District office is located north of Crest Forest Drive approximately ½ Miles west of State Highway 138 (34.24020938542964, -117.2978819381903).
Total population served and total service connections	7,000 Full time 14,000 Seasonal 4,950 connections
System Identification Number	CA3610015
Type of Source	Groundwater and emergency imported water
Type of Treatment Provided	Cholorine treatment
Number of Storage Tanks	12
Average Water Demand	425
Maximum Water Demand (GPM)	560
Peak Water Demand (GPM)	560
Name, title, phone number of primary contact (e.g., ERP Lead)	General Manager 909-338-1724
Alternate contact	Jeanene Wiess 909-338-1724
Location of treatment, distribution, collection schematics and operation manuals	777 Cottonwood Drive, Crestline, CA 92325

General Description of the Water System
CVWD's public water system includes:

- The treatment, transmission, and distribution of potable water,
- Three chlorination treatment facilities,
- Water supplied from 54 wells and 6 connections to Crestline-Lake Arrowhead Water Agency,
- Approximately 90+ miles of pipe,
- 12 water storage reservoir tanks, and
- Six booster pumping stations.

The following additional utility information (as applicable) is included as a part of this ERP.

- ☒ Map of distribution systems
- ☒ Pressure boundary map
- ☒ Process flow diagram
- ☒ Example site photos for the following components of your system (as applicable):
  - Pumping and storage facilities
  - Reservoir facilities
  - Water treatment facilities
  - Chemical storage locations
  - Booster pump stations
- ☒ Supervisory Control and Data Acquisition (SCADA) system operation schematic

A map of the CVWD service area is provided in the Figure 1. Figure 2 shows a map of CVWD's distribution system.

Figure 1: CVWD Service Area

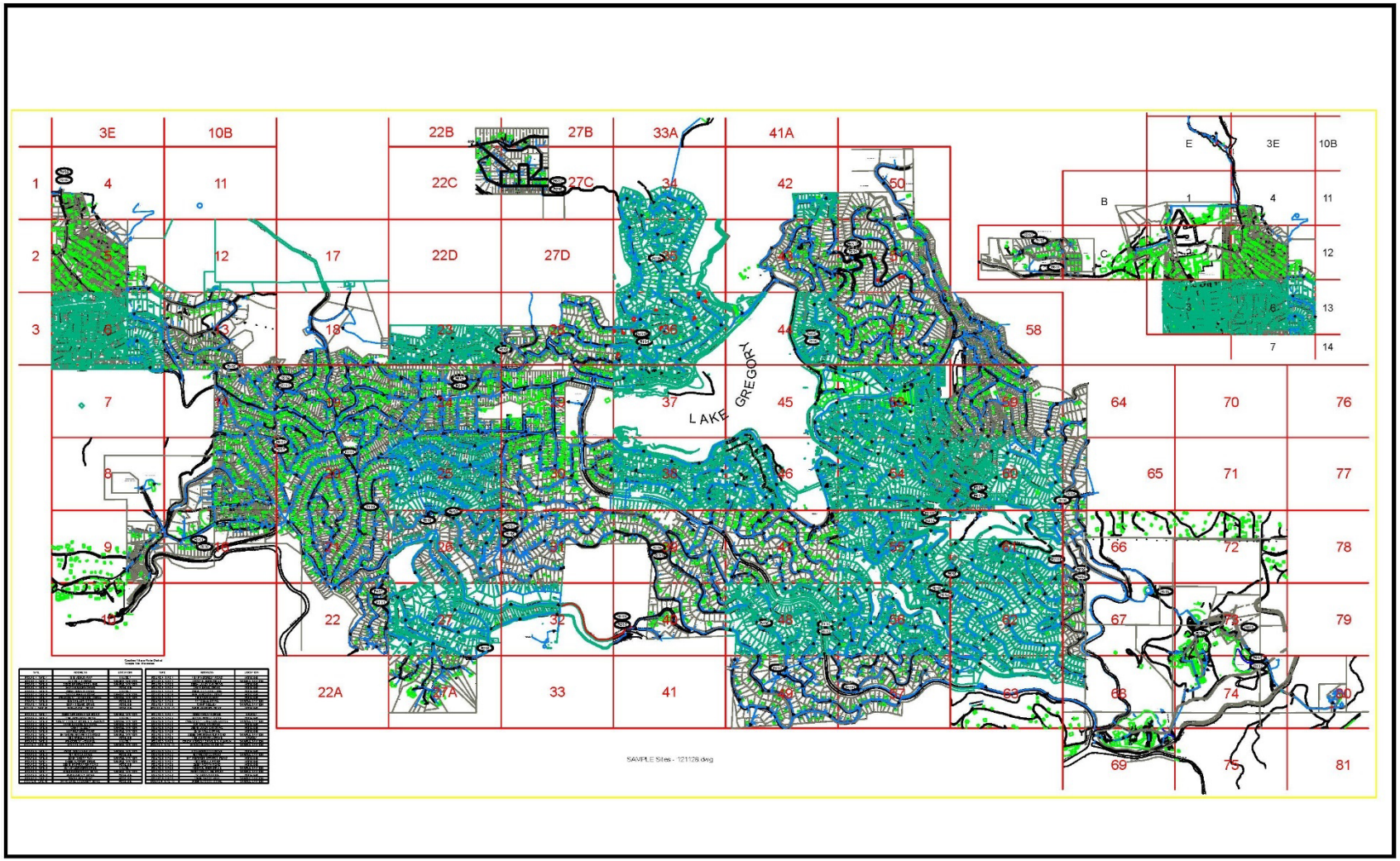
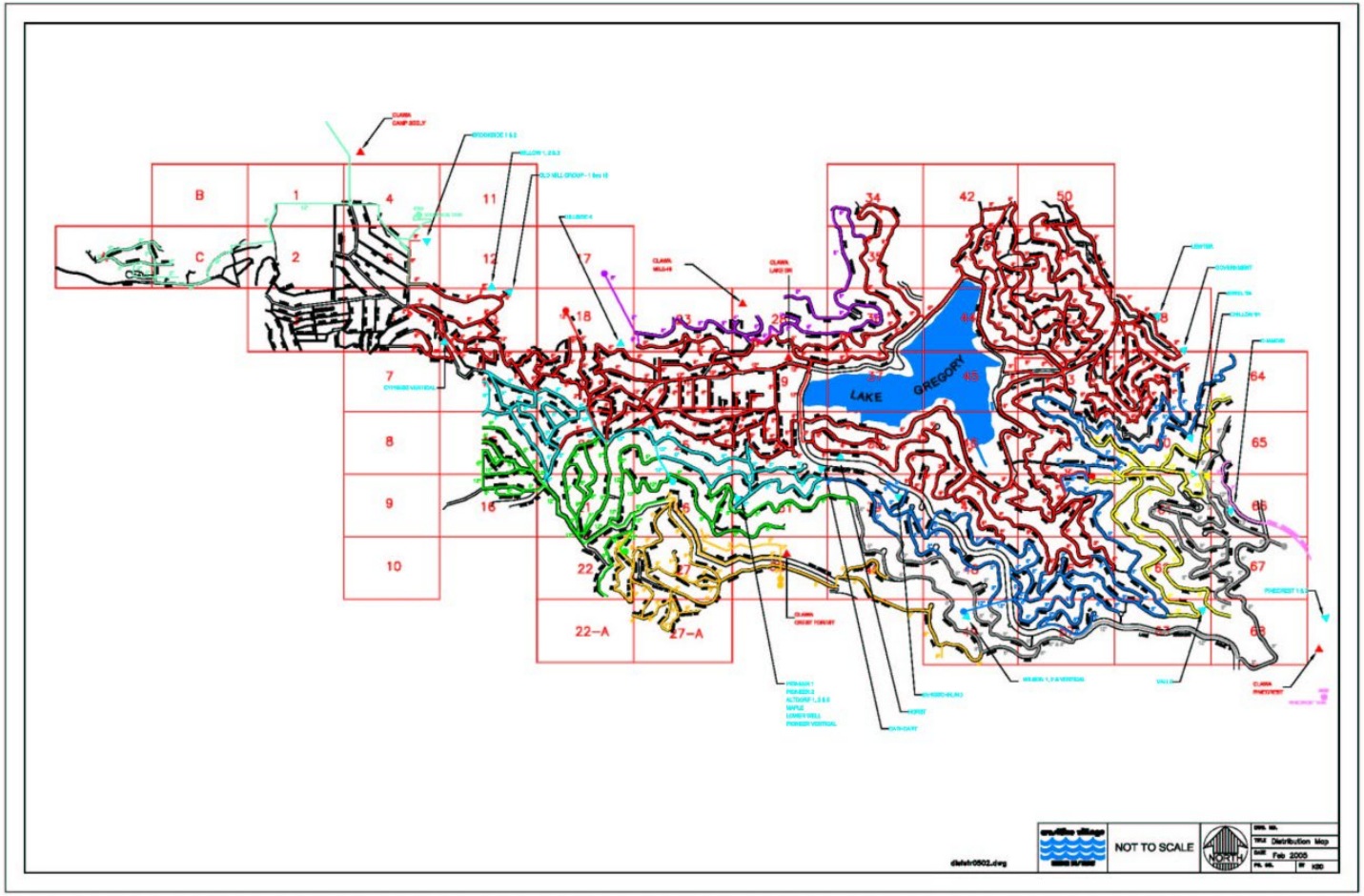
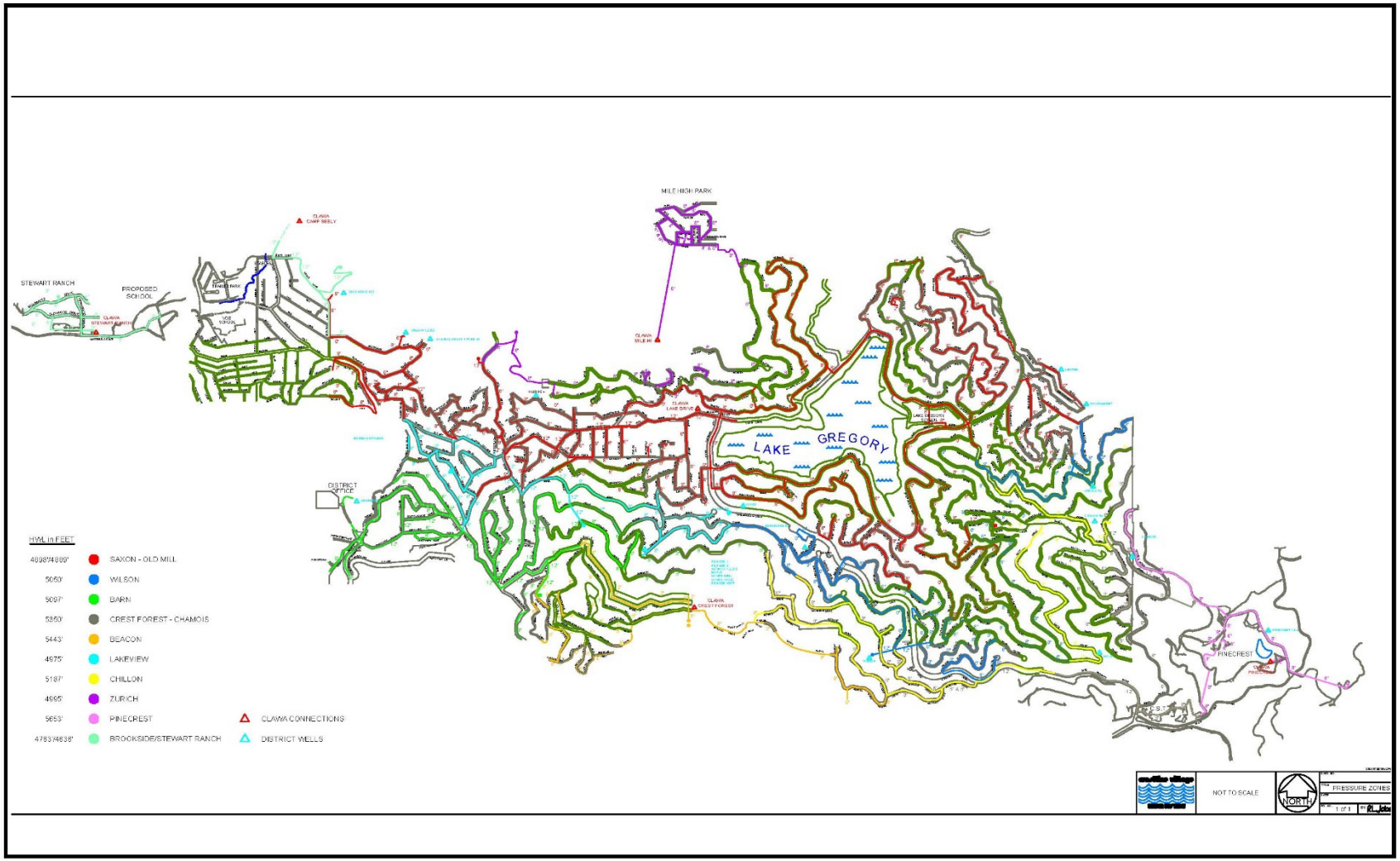


Figure 2: CVWD Distribution System



The Figure 3 provides a map of CVWD's pressure boundaries.

Figure 3 CVWD Pressure Boundaries



A map of the overall process flow through CVWD is provided in Figure 4.

Figure 4 Overall Process Flow Diagram

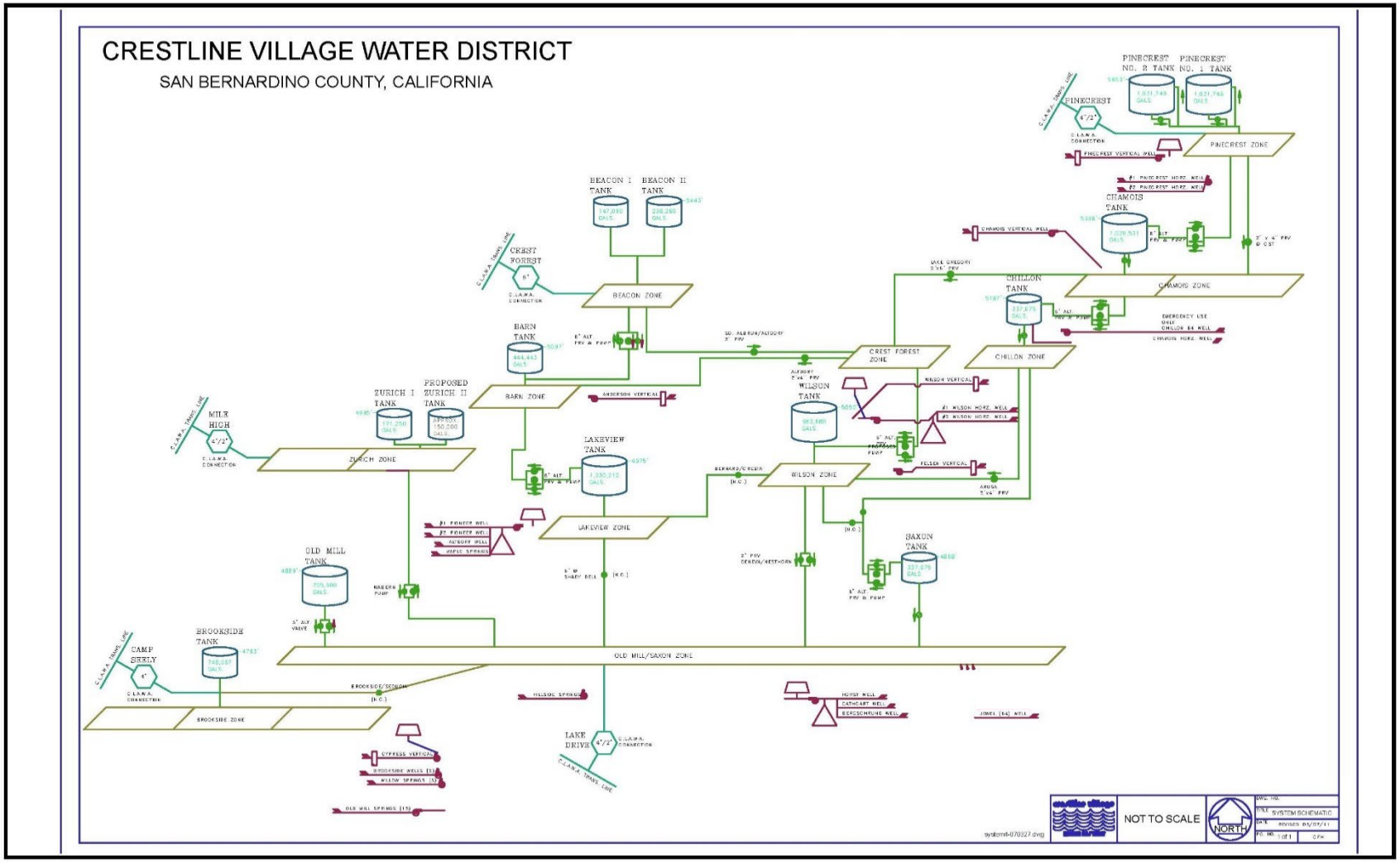
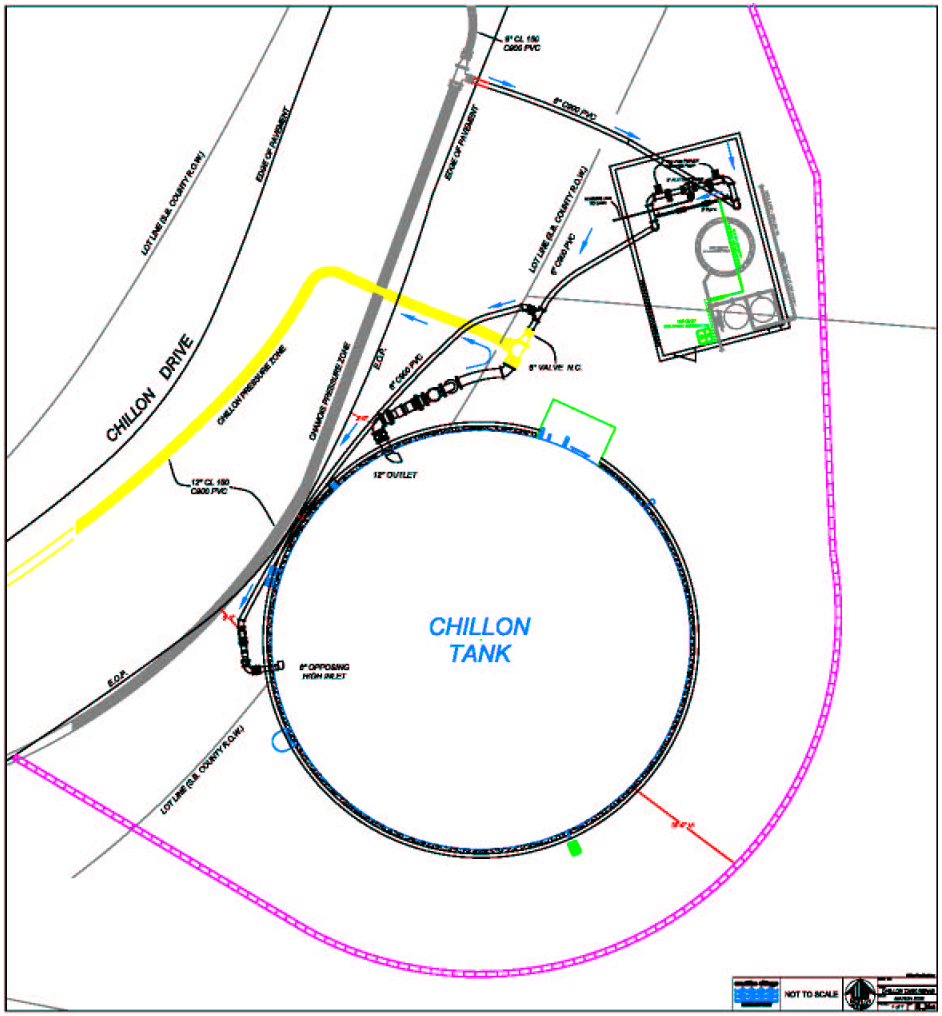


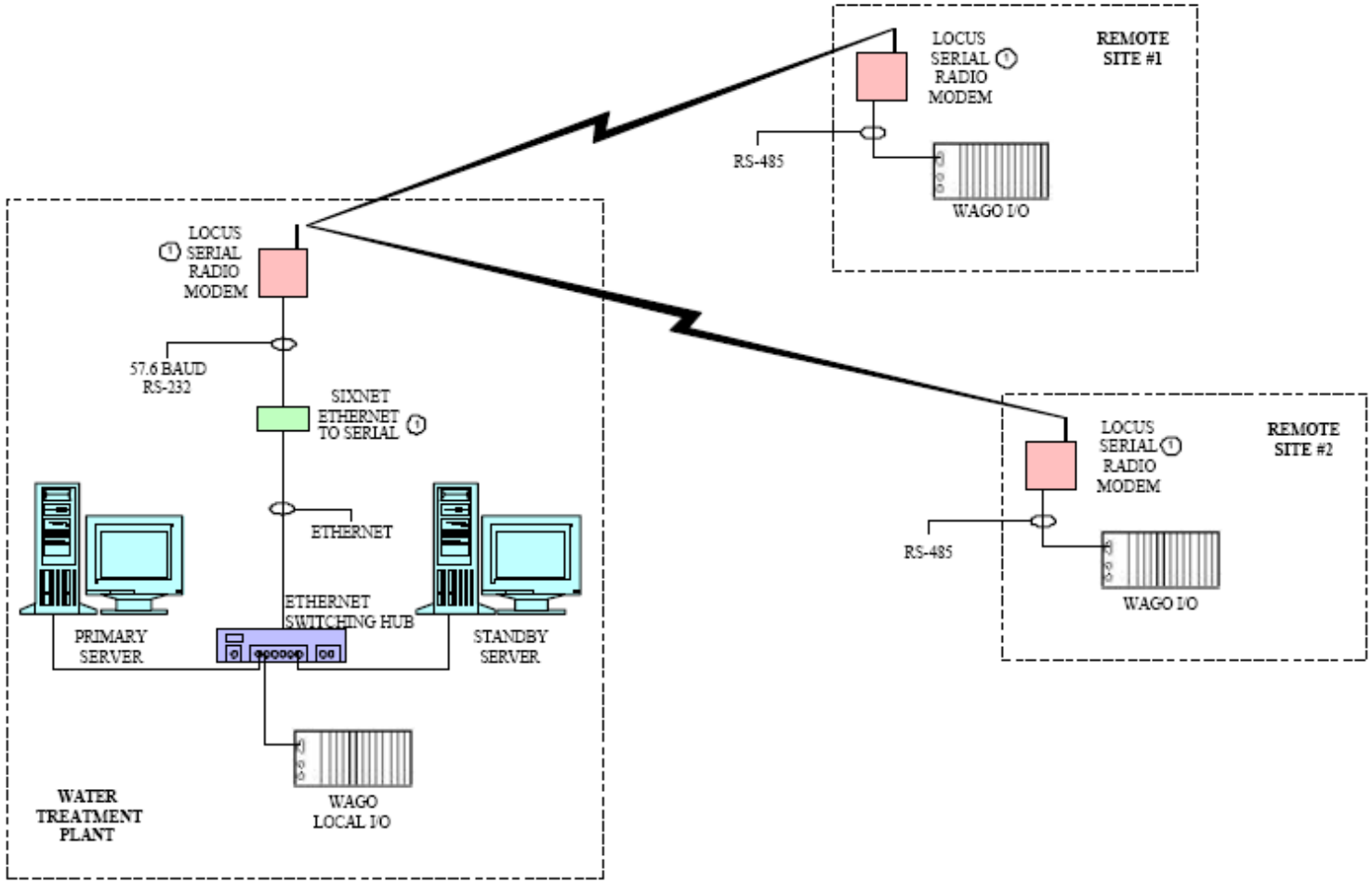
Figure 5 provides site plans and engineering drawings for Chillon storage tank.

Figure 5 Chillon Site Plan



A top level schematic of the SCADA system is provided in the Figure 6.

Figure 6 SCADA High Level Schematic



2.3 Personnel Information

The personnel roster is provided in the table below.

Personnel			
Name and Title	**Job Duties and Responsibilities**	**Contact Information**	**Emergency Information**
General Manager	Sets incident objectives and priorities. Responsible for management of incident. Coordinates all emergency response activities between agencies. Communicates with all participants including those outside water utility. Heads water utility's Emergency Operation Center (EOC). Interfaces with media and disseminates public information. Plans the information strategy. Acts as Water utility Emergency Response Manager (WUERM)	Office: 909-338-1727, ext. 224	Cell: Home:
Jeanene Weiss, Office Manager	Responsible for administrative functions in the office. Receives customer phone calls and maintains a log of complaints and calls. In an emergency, could provide a standard carefully pre-scripted message for	Office: 909-338-1727, ext. 228	Cell: 909-744-0842 Home: 909-336-3925

Personnel			
Name and Title	**Job Duties and Responsibilities**	**Contact Information**	**Emergency Information**
	customers who call with general questions.		
Steve Wood, Field Supervisor; Cross Connection Specialist	Responsible for field operations. Supervises field team.	Office: 909-338-1727 ext. 230	Cell: 909-709-5659 Home: 909-338-4673
Justin Anderson, Serviceman	Assists in field operations.		Home: 909-589-0707 Cell: 909-963-9455
Michael Casas, Serviceman	Assists in field operations.		Home: 909-338-6316 Cell: 909-744-2297
James Hinton, Serviceman	Assists in field operations		Home: 909-867-2070 Cell: 909-516-8507
Mike Lutcavish, Serviceman	Assists in field operations.		Home: 909-338-1593 Cell: 909-222-0804
Joseph Nicholson, Serviceman	Assists in the field operations.	Cell: 909-531-3723	Cell: 909-531-3723
Dave Sale, Serviceman, Water Quality Specialist	Responsible for water quality.		Home: 760-995-3150 Cell: 909-333-8722
Judith Anderson, Customer Service Representative	Assists in office operations.	Office: 909-338-1727, ext. 221	Cell: 909-744-4985
Josselyn Quine, Customer Service Representative	Assists in office operations.	Office: 909-338-1727, ext. 223	Cell: 909-534-0968
Dawn Renick, Customer Service Representative	Assists in office operations.	Office: 909-338-1727, ext. 222	Cell: 909-219-1921

2.4 Primary Utility Components

A list of all the components necessary to maintain effective operation is provided in the following pages.

2.4.1 Wells

Wells			
Well Name	**Depth/Location**	**Available Yield**	**Treatment Requirements/Associated Treatment Plant**
Anderson Vertical Well	600 feet 777 Cottonwood Drive	256 GPM	N/A
Chamois Vertical Well	600 feet 25301 North Road	8 GPM	N/A
Pinecrest Vertical Well	600 feet 1140 Pinecrest Road	20 GPM	Inject PO^4
Cypress Well Site	596 feet 468 Highway 138	17 GPM	Inject PO^4
Pioneer Well Group	23992 Cresta Drive	38 GPM	4 Horizontal collection tanks, pump station, inject Cl^2 and PO^4
Electra Vertical Well	600 feet 25172 Jewell Drive	30 GPM	Inject Cl^2
Felsen Vertical Well	570 feet 24770 Lake Gregory Drive	28 GPM	N/A
Old Mill Springs Well Group	325 Poplar Lane	10 GPM	15 Horizontal collection tank and pump station.
Willow Springs Well Group	23188 Brookside Road	8 GPM	3 Horizontal collection tanks and pump station.
Horst Well Group	24250 Lake Gregory Drive	20 GPM	3 Horizontal collection tanks, pump station, inject Cl^2 and PO^4
Brookside Well Group	60 Sequoia Lane	6 GPM	N/A
Pinecrest Well Group	1161 Pinecrest Road	15 GPM	2 Horizontal collection tank pump station.
Wilson Horizontal Well Group	600 feet 1198 Jungfrau Drive	25 GPM	N/A
Hillside Springs Horizontal Well	23666 Hillside Drive	1 GPM	N/A
Wilson Horizontal Well Group	1198 Jungfrau Drive	20 GPM	2 Horizontal collection tank pump station, Injects Cl^2 and PO^4
Jewell 64 Horizontal Well		13 GPM	Horizontal

2.4.2 Intakes

Intakes

Intake Name	Depth/Location	Capacity	Treatment Requirements/Associated Treatment Plant
Lake Drive Connection	Lake Drive Purchased Water	2-inch and 4-inch connections	N/A
Crest Forest Connection	Crest Forest Drive Purchased Water	6-inch connection	N/A
Pinecrest Connection	Pinecrest Camp Purchased Water	2-inch and 4-inch connections	N/A
Mile High Connection	Mile High Purchased Water	2-inch and 4-inch connections	N/A
Camp Seely Connection	Camp Seely Purchased Water	4-inch connection	N/A

2.4.3 Treatment Plants

Treatment Plants

Plant name	Location	Capacity	Treatment Train
N/A	N/A	N/A	N/A

2.4.4 Storage and Distribution System

Storage and Distribution System – Tanks, Primary Mains and Pumping Stations

Location	Area Served	Comments
Barn Site	Barn Zone	0.50 MG Storage tank and pumping station, telemetry, and Aclara meter reading system.
Brookside Site	Brookside Zone	0.75 MG Storage tank, telemetry, and Aclara meter reading system.
Beacon Site	Beacon Zone	Storage tanks I (0.15 MG) and II (0.23 MG) and radio repeater, telemetry and Aclara meter reading system
Chamois Site	Chamois Zone	1.0 MG Storage tank, pump station, telemetry.

Storage and Distribution System – Tanks, Primary Mains and Pumping Stations

Location	Area Served	Comments
Chillon Site	Chillon Zone	0.30 MG Storage tank, telemetry, and Aclara meter reading system.
Lakeview Site	Lakeview Zone	1.0 MG Storage tank, telemetry, and Aclara meter reading system.
Old Mill Site	Old Mill One	0.70 MG Storage tank and telemetry
Pinecrest Site	Pinecrest Zone	Storage tanks (#1 – 1MG and #2 – 1 MG) , telemetry, and Aclara meter reading system.
Saxon Site	Saxon Zone	0.30 MG Storage tank and pumping station, telemetry, and Aclara meter reading system.
Wilson Site	Wilson Zone	1.0 Storage tank, Pump Station, chlorination station, telemetry, and Aclara meter reading system.
Zurich Site	Zurich Zone	Storage tanks (#1 – 0.20 MG and #2 – 0.20 MG), Pump Station, telemetry, and Aclara meter reading system.

CVWD has estimated the amount of water storage available in the system under an emergency situation according to the following formula:

Emergency supply of water = (amount of storage + backup/emergency supply) / (system demand)

Calculations for CVWD: Amount of storage = 8,330,000 gallons
Backup/ Emergency Supply = 0 gallons

System Demand = 425 gpm Average, 560 gpm Maximum

	GPM	Per Hour	Per Day	Days of Storage
Average	425	25500	612000	13.61
peak demand	560	33600	806400	10.33

Emergency Supply = 13.61 days at Average Demand, 10.33 days at Max Demand

2.4.5 Treatment Chemical Storage Facilities

Treatment Chemical Storage Facilities

Location	Chemical(s)	Comments
23992 Cresta Drive Pioneer Pump House	Cl^2 – PO^4	These are in liquid form (Cl^2 1% and PO^4) and there is an eye wash in the pump house.
24250 Lake Gregory Drive Horst Pump House	Cl^2 – PO^4	These are in liquid form (Cl^2 1% and PO^4) and there is an eye wash in the pump house.
1198 Jungfrau Drive Wilson Pump House	Cl^2 – PO^4	These are in liquid form (Cl^2 1% and PO^4) and there is an eye wash in the pump house.
25172 Electra Electra Pump House	Cl^2	These are in liquid form (Cl^2 1%) and there is an eye wash in the pump house.

2.4.6 Other Key Facilities

Other Key Facilities

Location	Function	Comments
	Telemetry system used for monitoring of storage facilities, CF CAWA connection and CL2 Residual Water Distribution System	System Control and Monitoring. All tanks have telemetry system for water level and tank lids. Pioneer, Horst, and Wilson Pump Houses have telemetry for Cl2 residuals

A photo inventory of CVWD facilities is provided in Appendix B.

2.5 Industrial Chemical Handling and Storage Facilities

There are no chemical production, handling or storage industries that could have an impact during incidents such as accidental releases, wildfires, or earthquakes.

2.5.1 Chemical Storage Tanks

Chemical Storage Tanks

Facility Name	Location	Distance	Chemical and Exposure Pathway
Shell Gas Station	23735 Lake Dr, Crestline, CA 92325	1.2 miles east of the utility office	Underground storage tank (UST) holding gasoline. Earthquakes may cause disruption or leaking of the tank.

2.6 Safety

A list safety materials and important safety information to help protect utility personnel during an incident is provided below.

2.6.1 Safety Materials

Safety Materials

Type	Location
Toxic material detection and testing supplies	Maintenance Facility 777 Cottonwood Drive, Crestline
Emergency food and water supplies	Maintenance Facility 777 Cottonwood Drive, Crestline
Gloves, Safety glasses, face shields and MSDS	Maintenance Facility 777 Cottonwood Drive, Crestline
Eye wash stations	Maintenance Facility 777 Cottonwood Drive, Crestline, Pioneer Pump House, Horst Pump House, and Wilson Pump House.

2.6.2 Safety Information

Safety Information

Topic	Description
Wind speed	Utility personnel may not work outdoors when the sustained wind speed is 45 mph or greater.
Safety meetings	Occurs monthly
Truck Pre-Trip	Occurs daily
Equipment Pre-trip	Occurs daily
Tank Climbing	Occurs as needed by utility personnel. Harness required.

2.7 Response Resources

An inventory of available resources (e.g., equipment, supplies) either maintained on site or readily available off site (e.g., neighboring water system) is provided in the table below.

Resources

Kind	Type	Quantity	Location
Dump trucks	Dump trucks	2	Maintenance Facility

Resources

Kind	Type	Quantity	Location
			777 Cottonwood Drive, Crestline
Asphalt grinder	Asphalt grinder	1	777 Cottonwood Drive, Crestline
Asphalt paver	Asphalt paver	1	777 Cottonwood Drive, Crestline
Skip loaders	Skip loader	1	Maintenance Facility
Backhoes	Backhoes	2	777 Cottonwood Drive, Crestline
Water trucks	Water trucks	1	777 Cottonwood Drive, Crestline
Maintenance trucks	Maintenance trucks	9	Maintenance Facility
Air compressors	Air compressors	1	777 Cottonwood Drive, Crestline
Fans and blowers	Fans and blowers	2	Maintenance Facility
Generators	Generators	1	777 Cottonwood Drive, Crestline
Shop vacuums	Shop vacuums	1 portable	Maintenance Facility
Pumps	Pumps	3	777 Cottonwood Drive, Crestline
Welding equipment	Welding equipment	1 (office) 1 (portable	777 Cottonwood Drive, Crestline
Class II Base, Gravel, and asphalt	Class II Base, Gravel, and asphalt		777 Cottonwood Drive, Crestline
Class II Base and Gravel	Class II Base and Gravel		Storage Bins at 548 Springy Path
Absorbents	Absorbents	Stock supply	Maintenance Facility 777 Cottonwood Drive, Crestline
Asphalt roller	Asphalt roller	1	Maintenance Facility
Laymor broom	Laymor broom	1	Maintenance Facility
Skid steer	Skid steer	1	Maintenance Facility
Portable generator	Portable generator 5500	2	Maintenance Facility

Resources

Kind	Type	Quantity	Location
Trailer	Zieman trailer	2	Maintenance Facility
Chipper	Vermeer chipper	1	Maintenance Facility

Fleet and Gas/Diesel Resources

Truck/Equipment #	Description	Fuel Type	Tank Capacity (Gallons)
098001	2002 Ford Ranger 4X4	Gas	25
098002	2019 Ford F250	Gas	25
098003	2018 Ford F250	Gas	25
098004	2011 Ford Escape 4X4	Gas	25
098005	Unused	-	-
098006	Unused	-	-
098007	2013 Ford Explorer 4X4	Gas	25
098008	Unused	-	-
098009	2001 Ford F350	Gas	35
098010	Unused	-	-
098011	2021 Ford F150	Gas	30
098012	Unused	-	-
098013	Unused	-	-
098014	2013 Ford F150	Gas	30
098015	2006 Sterling Water Truck	Diesel	120
098016	1986 Intl. Dump Truck	Diesel	100

Fleet and Gas/Diesel Resources

Truck/Equipment #	Description	Fuel Type	Tank Capacity (Gallons)
098017	Unused	-	-
098018	1998 Dump Truck	Diesel	120
098019	2013 Ford F150	Gas	30
098020	Miscellaneous Gas Can	Gas	15
Trailer	Zieman trailer	2	Maintenance Facility
Chipper	Vermeer chipper	1	Maintenance Facility
098021	1997 John Deere Loader	Diesel	60
098022	1997 John Deer Loader 310	Diesel	35
098023	Unused	-	-
098024	1990 Case 1845	Diesel	25
098025	Miscellaneous Diesel	Diesel	100
098026	2020 John Deere 310 HL	Diesel	35
098027	Unused	-	-
098028	1998 Laymor Broom	Diesel	10
098029	Unused	-	-
098030	1998 Asphalt Grinder	Diesel	10

2.8 Key Local Services

The table below lists the closest locations of key logistical and medical services that may be needed during an incident.

Essential Services

Facility	Location/Description
Mountains Community Hospital	29101 Hospital Road, Lake Arrowhead, CA 92352
Shell Gas Station	23735 Lake Drive, Crestline, CA 92325
Lake Gregory Pharmacy	580 Forest Shade Road #7, Crestline, CA 92325
California Bank & Trust	23840 Lake Drive, Crestline, CA 92325
ATM (in Shell Station)	23735 Lake Drive, Crestline, CA 92325
Goodwin & Sons Market	24089 Lake Gregory Drive, Crestline, CA 92325

SECTION 3 - Resilience Strategies

This section contains strategies and resources to improve the resilience of the system, including the physical security and cybersecurity of the system.

3.1 Emergency Response Roles

Below is a description of the roles and responsibilities for key utility and external response partner personnel.

3.1.1 Water Utility and Partner Roles

Water Utility and Partner Roles

Name/Title	Emergency Response Role	Responsibilities
General Manager	Emergency Response (ER) Lead WUERM, PIO	Responsible for all incident response activities, including developing strategies and tactics and ordering and releasing resources.
Jeanene Weiss, Office Manager	Alternate Emergency Response Lead	Perform duties as assigned by ER Lead; assumes duties listed above when ER Lead is not available.
General Manager	Public Information	Responsible for leading the public information effort based on information supplied by either the ER or Alternate ER Lead.
Steve Wood	Field Supervisor	In charge of field distribution and treatment operations
Don Lupear, Captain, Twin Peaks Patrol Station	Security	Will provide incident security as needed once notified by ER Lead.

3.1.2 External Response Partner Role

External Response Partner Roles

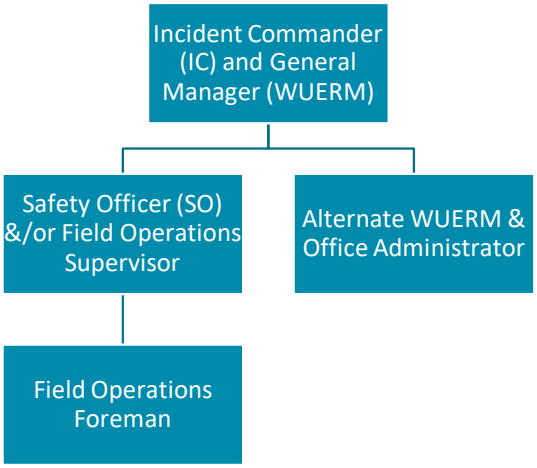
Name/Title	Organization	Responsibilities During an Incident
Local Partners		
San Bernardino County Office of Emergency Services	County Emergency Management/EOC	Local Emergency Management Agency.
911	911	For emergency response coordination with local fire, law enforcement, medical and HAZMAT.
San Bernardino County Fire Department	HAZMAT division	HAZMAT Unit.
Fire / HAZMAT	Fire / HazMat	Assist in emergency incident involving unknown substance and possible contamination of water system.
San Bernardino County Health Department	San Bernardino County Health Department	Health services.
County Board of Supervisors	Elected officials	Country representative of elected officials.
Crestline Sanitation District	Sanitation district	Sanitation services.
Crestline-Lake Arrowhead Water Agency	Water agency	Alternative water source.
Southern California Edison	Electric utility	Power service and coordination with CVWD on power restoration.
Clinical Laboratories of San Bernardino	Laboratory	Local water testing laboratory
Valley of Enchantment Mutual Water Company	Water purveyor	Water purveyor for Valley of Enchantment
State Partners		
California Department of Health Services, District Engineer	Primacy Agency	Drinking Water Primacy Agency
California Mutual Aid System	Mutual aid	Financial and technical assistance.

Federal Partners		
EPA Regional Office	EPA regional office	Coordinate with CDPH and county HAZMAT teams.
FBI	FBI field office	Assist in the event of a known terrorist incident or direct written or phone threat against the water system.
Center for Disease Control	CDC	Public health issues.

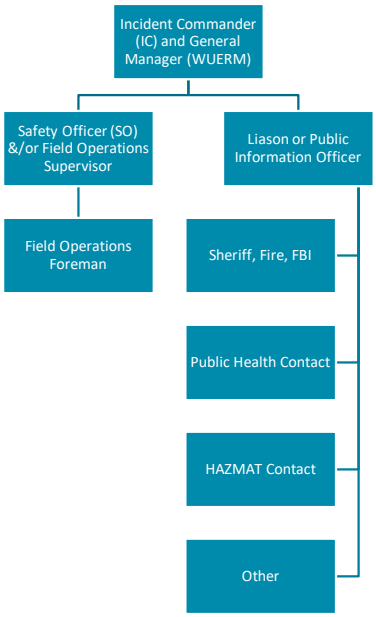
3.2 Incident Command System (ICS) Roles

ICS is used to organize both near-term and long-term field-level operations for a broad spectrum of emergencies, from small to complex incidents, both natural and manmade. An ICS Incident Organization Chart for stages of threats is provided below.

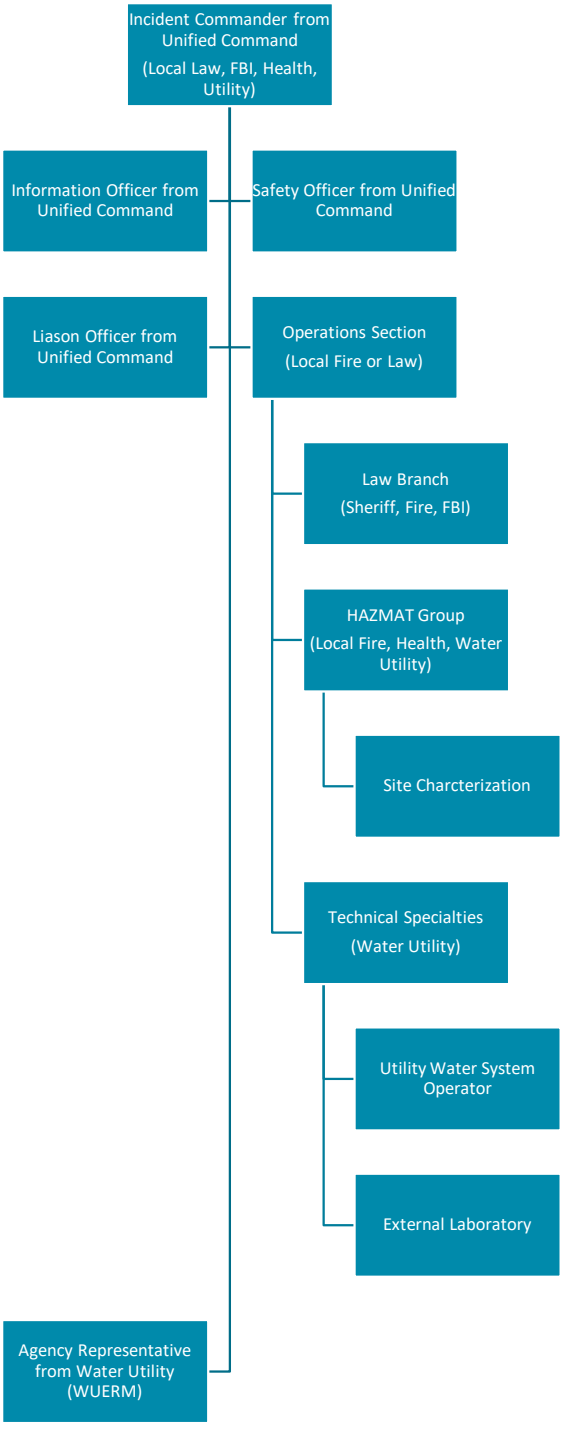
"Possible" Threat



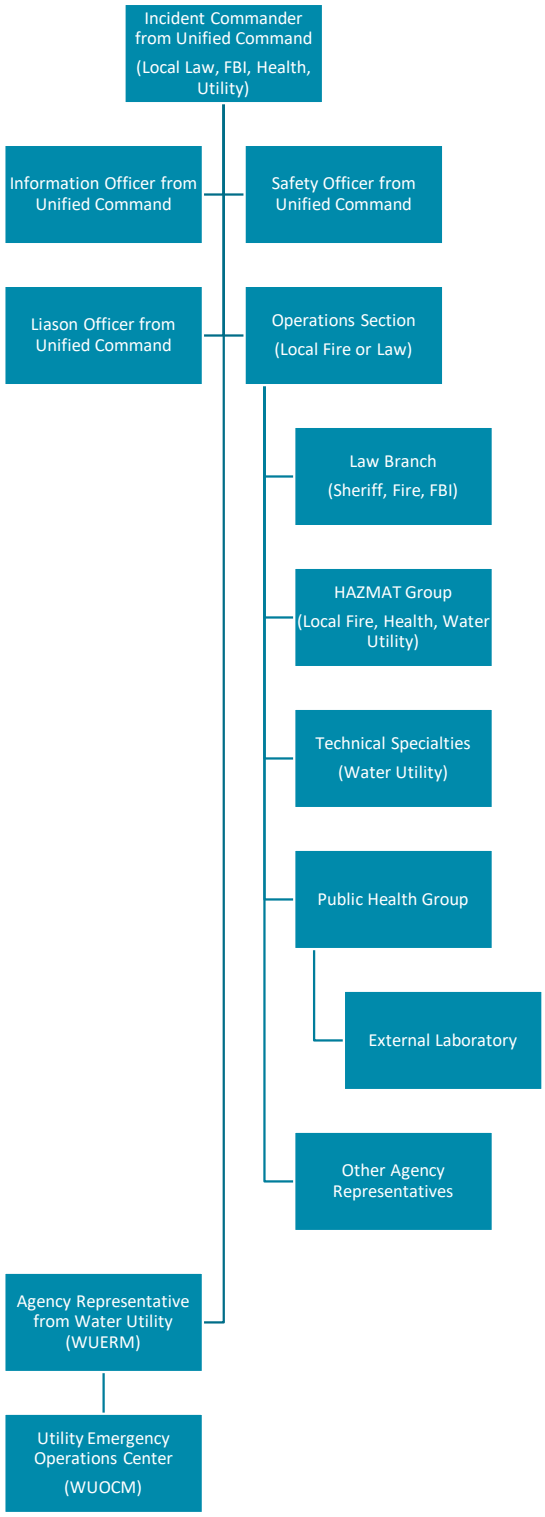
“Credible” Stage Investigation CVWD



"Credible" Threat Investigated by Unified Command



"Confirmed" Threat Investigated by Unified Staff



The Standardized Emergency Management System (SEMS) is the system required by Government Code §8607(a) for managing response to multi-agency and multi-jurisdiction emergencies in California.

3.2.1 Five Levels of SEMS

There are five designated levels in the SEMS organization, as shown below. When resources become depleted or are not available at the field or local level, requests for resources are moved up through these levels until they are filled. The type and severity of the incident determines the extent of activation for each level.

Field Response: The Field Response Level is where the ICS is applied. At this level, the emergency response personnel and resources are managed under ICS to carry out tactical decisions and activities in direct response to an incident or threat.

Local Government: Local Government includes, San Bernardino Special Districts, San Bernardino Unified School District, and the San Bernardino County.

Operational Area: The Operational Area represents the intermediate level of the state's emergency organization, consisting of county and all political subdivisions, including water districts, and other special districts, within the county area. This includes such entities as Crestline-Lake Arrowhead Water Agency, San Bernardino County, and Environmental Health Department.

Regional: Given its size and geography, the state of California has been divided into six mutual aid regions by the Governor's Office of Emergency Services (OES). In SEMS, the regional level manages and coordinates information and resources among operational areas within the mutual aid regional as well as between the operational areas and the state level.

State: The state level manages and coordinates state resources in response to the emergency needs of the other levels. This level manages and coordinates mutual aid among the mutual aid regions and between the regional and state levels. The state level also serves as the coordination and communication link between the state and federal disaster response system.

3.2.2 Five Principle Functions of SEMS

There are five principle functions within SEMS at each of the five organizational levels.

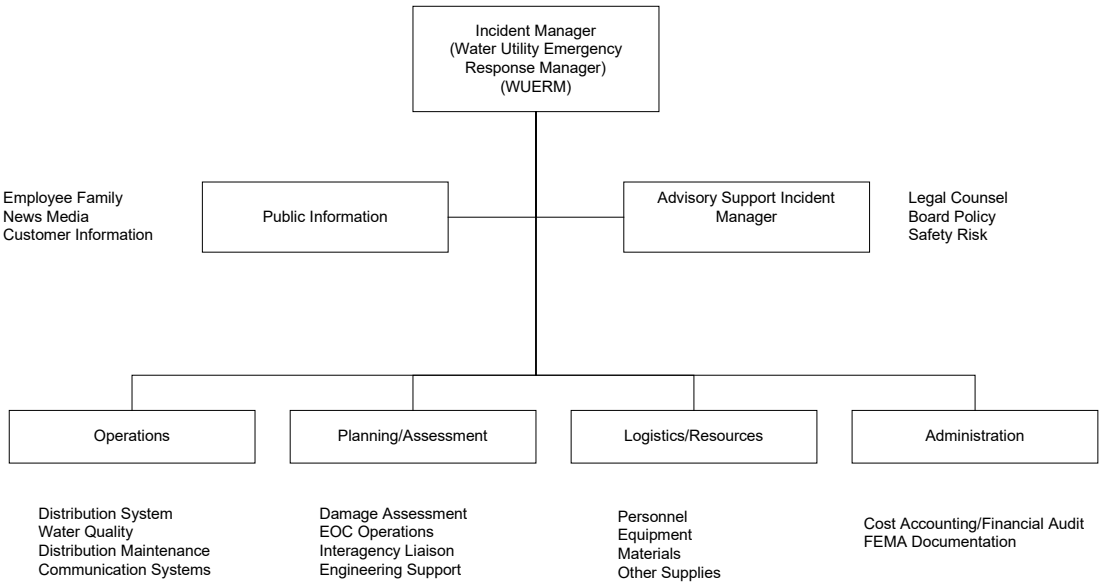
1. Management – "Command" at the Field Level
2. Operations
3. Planning/Intelligence
4. Logistics
5. Finance / Administration

These functions are modular in their design and can expand or contract depending on the needs of the incident. A summary of the functions and the responsibilities of each section, as they relate to CVWD's Operations during an emergency is provided below.

Function	Responsibilities
Management	• Serves as Command Staff and or Incident Commander at the Field Level. • Directs Water System EOC. • May serve as WUERM.
Operations	• Responsible for management of all operations directly applicable to the primary mission. • Operations Section Chief activates and supervises organizational elements in accordance with the incident Action Plan (AP) and directs execution of the AP. • Coordinates emergency response activities at the water utility EOC level. • Implements priorities established by management or Incident Command. • Field Coordinators - Operations staff who are linked to water utility personnel at other fixed facilities or who are assigned to incidents within the water utility. - Receive and pass information up the chain of command. - Receive and coordinate requests for services and support.
Planning / Intelligence	• Oversees the collection, evaluation, verification, and display of current information related to the emergency. - Understand current situation. - Predict probable course of the incident events. - Prepare alternative strategies and control operations for the incident. • Responsible for preparing action plans and maintaining documentation related to the emergency.
Logistics	• Provides facilities, services, and material in support of the incident. • Oversees the acquisition, storing, and distribution of essential resources and support services needed to manage emergency. • Tracks the status of resources. • Provides services to all field units in terms of obtaining and meeting their personnel, materials and equipment needs including communications.
Finance / Administration	• Responsible for all financial, administrative, and cost analysis aspects of the incident. • Prepares vendor contracts, maintains records for expenditures for personnel and equipment, and maintains records and processes claims. • Provides preliminary estimates of damage costs and losses.

The following figure provides a template SEMS response chart for CVWD to utilize during an emergency scenario.

Figure 7: SEMS Response Chart

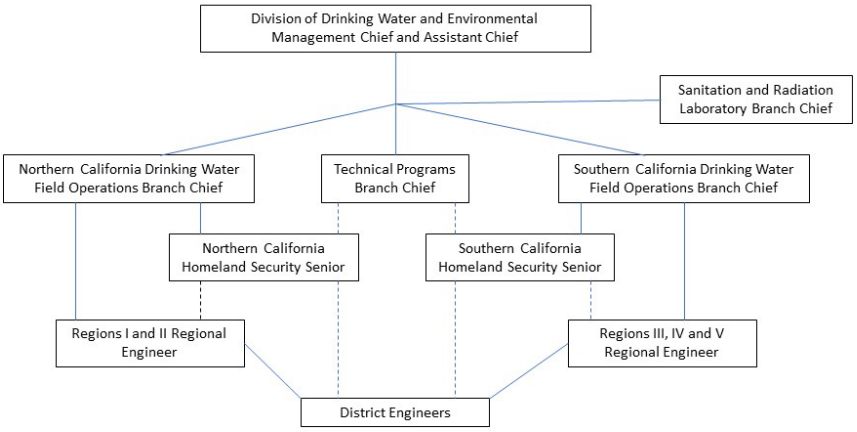


Section Leader Assignments

SECTION	PRIMARY	ALTERNATE
Incident Manager	General Manager or Water Utility Emergency Response Manager (WUERM)	Chief Engineer
Operations	Water Quality/District Superintendent or WUERM	Field Main. Superintendent
Planning/Asssessment	Head of Engineering Services	Principal Engineer
Logistics/Resources	Asst. Field Maintenance Superintendent	Field Supervisor
Administration	Admin. Manager Accounting	Personnel Administrator Human Resources
COMMAND STAFF	**PRIMARY**	**ALTERNATE**
Public Information	Public Education Coordinator	Customer Service Admin.
Advisory Support	Safety Coordinator	Assistant Safety Coordinator

The primary contact for the CVWD during any emergency is the State Water Resources Control Board Division of Drinking Water's (SWRCB DWW) District Engineer. CVWD will contact the District Engineer in the event of any emergency. From the District Engineer, authority moves up the line to the Regional Engineer, Branch Chiefs, Assistant Division Chief, to finally the Chief of the Division.

Figure 8: State Level SEMS



3.3 Communication

Communication during an incident is critical to relay information to employees, response partners and critical customers about potential risks to health, infrastructure, and the environment.

3.3.1 Internal Communication

A list of all utility emergency response team members, their response role, title, and contact information is provided below.

Contact List

Name	Role/Title	Phone	Alternate Phone	Email
	General Manager, WUERM and Public Information Officer (PIO)	909-338-1727		
Jeanene Weiss	Office Manager	909-338-1727		jweiss@cvwater.com
Steve Wood	Field Supervisor, Cross Connection Specialist	909-338-1727, ext. 230	Cell: 909-709-5659 Home: 909-338-673	swood@cvwater.com
David Sale	Serviceman, Water Quality Specialist	909-338-1727		dsale@cvwater.com

Contact List				
Name	**Role/Title**	**Phone**	**Alternate Phone**	**Email**
Michael Lutcavish	Serviceman			mlutcavish@cvwater.com
James Hinton	Serviceman	Cell:909-516-8507	Home: 909-867-2070	jhinton@cvwater.com
Justin Anderson	Serviceman	Cell: 909-963-9455	Home: 909-589-070	janderson@cvwater.com
Joseph Nicholson		Cell: 909-531-3723		jnicholson@cvwater.com
Mike Casas	Serviceman	Cell: 909-744-2297	Home: 909-338-6316	mcasas@cvwater.com

3.3.2 External Response Partner Communication

A list of all external response partners, their response role or position as well as contact information is provided below.

External Response Partner Contact List				
Organization or Department	**Point Person Name or Position**	**Phone**	**Alternate Phone**	**Email or Website**
Local Partners				
San Bernardino County Office of Emergency Services		909-356-3998		
911		911		
San Bernardino County Sheriff Twin Peaks Sheriff Station	Don Lupear, Captain	909-336-0600	911 (Emergency)	https://wp.sbcounty.gov/sheriff/patrol-stations/twin-peaks/
Crest Fire Protection District		909-338-3311	911 (Emergency)	
San Bernardino County Fire Department Hazardous		909-386-8425		https://sbcfire.org/hazmatcupa/

External Response Partner Contact List

Organization or Department	Point Person Name or Position	Phone	Alternate Phone	Email or Website
Materials Division				
County Supervisor 2nd District	Janice Rutherford	909-387-4833		supervisorrutherford@sbcounty.gov, https://www.sbcounty.gov/bosd2/
Crestline Sanitation District		909-338-1751	909-338-5306	https://crestlinesanitation.com/
Southern California Gas Company		909-336-4694	800-427-2200 (Emergency)	www.socalgas.com
Southern California Edison		909-336-4694	909-881-7867 (Emergency)	www.sce.com
San Bernardino Health Department		909-909-4666	909-356-3805 (Emergency)	
Clinical Laboratory of San Bernardino		909-825-7693		http://clinical-lab.com/
Verizon (Cell) Telephone		909-337-2941	909-881-7867 (Emergency)	
Underground Service Alert		800-227-2600		
Internet & Phone Service Provider – Frontier		877-995-8364	800-921-8101	www.frontier.com
Pipeline Materials – Inland Water Works Supply		909-883-8941		https://www.inlandwaterworks.com/
IT Support – Computer Options		909-793-6338		https://www.computeroptions.net/

External Response Partner Contact List

Organization or Department	Point Person Name or Position	Phone	Alternate Phone	Email or Website
State Partners				
Office of Emergency Services 24/7	CDHS Duty Officer	916-845-8911		https://www.caloes.ca.gov/
California Department of Health Services	District Manager	909-383-4321		DOSHSB@dir.ca.gov; https://www.dir.ca.gov/dosh/districtoffices.htm
State Water Resource Control Board Division of Drinking Water District Office	Chun Huang, District Engineer	619-525-4159		https://www.waterboards.ca.gov
California Highway Patrol		909-867-2791	909-383-4811	https://www.chp.ca.gov/home
Lahontan Regional Water Quality Control Board		760-241-6583		
Federal Partners				
EPA Southern California Field Office		213-244-1800	800-300-2193 24 hour Environmental Emergencies	https://archive.epa.gov/socal/web/html/about-us.html
FBI Los Angeles Field Office		310-477-65-65		https://www.fbi.gov/contact-us/field-offices/losangeles
Health and Human Services		202-619-0257		https://www.hhs.gov/
Department of Homeland Security		202-282-8000		https://www.dhs.gov/
CDC				https://www.cdc.gov/

External Response Partner Contact List				
Organization or Department	**Point Person Name or Position**	**Phone**	**Alternate Phone**	**Email or Website**
ATF		909-276-6031	415-744-7001 SF Field Division	https://www.atf.gov/san-francisco-field-division

Appendix C provides a summary of internal, local, state, and federal contacts for reference.

The initial notification response to any emergency should be to call 911 for the needed first responder and then to the SWRCB DDW. The SWRCB DDW is the Drinking Water Primacy Agency in California and has regulatory jurisdiction over all public water systems in the state.

Contact to the SWRCB DDW should be to their District Engineer. If CVWD is unable to contact the District Engineer (or one of their staff), CVWD will use the California OES Warning Center Phone Number: 1-800-852-7550, that is a 24/7 phone number.

A duty officer will answer the California OES Warning Center phone call and refer to statewide emergency phone numbers. In order to assist the duty officer it will expedite response if the request is to the CDHS duty officer. The CDHS duty officer will then call management staff in the DWP to respond to the emergency.

The SWRCB DDW District Engineer will be able to assist CVWD with:

- Inspections of water treatment plants, storage facilities, and watersheds (chemical contamination, sewage spills, erosion, and drainage diversions).
- Water quality sampling.
- Consulting with water system staff/operators.
- Provide technical assistance.
- Documenting the disaster's effect on the water system through photographs and reports.
- Keeping local officials advised of the current drinking water situation.
- Review plans and specifications for reconstruction projects, and issue amended permits as needed.
- Laboratory sampling analysis.

3.3.3 Communication with Critical Customers

A list of critical customers below who should be given priority notification due to their reliance on the water supply either for medical reasons, based on usage, public health mission or because they may serve customers considered to be sensitive sub-populations.

Critical Customer Contact List

Organization or Department	Point Person Name or Position	Contact Instructions	Phone	Alternate Phone	Email or Website
Mountain Nursing Care Services			909-338-0448		
Crest Lodge Historic Mountain Lodge	Mgr.		909-338-4792		
Sleepy Hollow Cabins & Hotel	Mgr.		909-338-2718		info@theplacetorelax.com, https://theplacetorelax.com/
Crestline Inn	Mgr.		866-765-1888		rjippolito@yahoo.com
The North Shore Inn	Mgr.		909-338-5230		thenorthshoreinn@gmail.com, https://www.thenorthshoreinn.com/
Mountain Transit			909-878-5200	909-338-1113	https://www.mountaintransit.org/
Mountain High School	Principal		909-336-4100	909-336-0381	https://www.rimsd.k12.ca.us/Domain/13
Village of Enchantment Elementary School	Bruce Hamilton, Principal		909-589-0396		Bruce-Hamilton@rimsd.k12.ca.gov; https://www.rimsd.k12.ca.us/Domain/11

Critical Customer Contact List					
Organization or Department	**Point Person Name or Position**	**Contact Instructions**	**Phone**	**Alternate Phone**	**Email or Website**
Crestline Head Start			909-338-1470		https://hs.sbcounty.gov/psd/Pages/default.aspx
Chamber of Commerce			909-338-2706		https://www.crestlinechamber.org/
Sycamore Ranch Vineyard Winery	Mgr.		909-338-1725		rwk@sycamoreranch.com, https://www.sycamoreranch.com/

3.3.4 Communication Equipment Inventory

An inventory of CVWD's communication equipment is provided in the following table.

Communication Equipment			
Type	**Assigned to**	**Location**	**Number/Frequency/Channel**
Portable Radios	Field Supervisor and field team	777 Cottonwood Drive, Crestline, CA 92325	1 and 2.
Radio Batteries		777 Cottonwood Drive, Crestline, CA 92325	N/A

3.3.5 Telephone Equipment

Standard land-based telephones are potentially useful for communication during an emergency.

If employees see telephones off the hook, they should hang them up. This will help the telephone company to restore service. In addition, cellphones can be utilized in emergency situations. Cellphone numbers are included in the contact information of this plan.

3.3.6 VHF Radio Communications

Specific instructions will be provided by CVWD's Command Center on the operation and prioritization of Utility radio facilities. It is important to note that radio communications are NOT

SECURE, and therefore radios must not be used to transmit sensitive messages or data that is not ready for public release or would give advantage to an attacker. For this reason, it is anticipated that radios will be of limited use during an attack on the water system, unless there is a loss of off-site power or other event affecting the land-based and cell phone service.

3.3.7 Citizen's Band Radio / Military Radios

It may be necessary to request assistance from CB radio operators or the military if other systems are not available. However, CB and most readily available military radios do not provide secure communication.

VHF Communications Channel

Channel	Use Group / Frequency
CB Channel 9 - REACT	CRESTCOMM contacted via Crest Forest Fire Department

3.4 Media Outreach and Risk Communication

Below is a list contact information for all media outlets that may be coordinated with during notification efforts.

Contact List

Organization or Department	Point Person Name & Position	Phone	Alternate phone	Email or Website
Utility social media coordinator				www.cvwater.com
Newspaper – Crestline Center Courier News & Mountain News Local		909-338-1893	909-336-3555	https://mountain-news.com/
Newspaper – Alpenhorn News		909-337-1848		
Radio station – KFRG 95.1 FM		909-825-9525		https://www.audacy.com/kfrog
TV station – Channel 6 & 10 Charter Communication Cable TV		866-499-8080		https://www.spectrum.com/cable-tv

3.5 Public Notification

3.5.1 Media Notification

Effective communication with the public as a key element of this ERP. CVWD personnel have been instructed to direct all media questions or information requests related to an emergency situation to CVWD's General Manager/Public Information Officer (PIO). The PIO is the official spokesperson for CVWD and is the only CVWD employee who is authorized to speak directly to public media representatives.

3.5.2 Public Notification

A Boil Water Order (BWO), Unsafe Water Alert (UWA), or Do Not Drink Notice can be issued by one, or a combination of the following agencies:

- SWRCB DDW. Designated personnel" District Engineer, Regional Engineer, or Branch Chief.
- Local County Health Department. Designated personnel: County Health Officer or Director Environmental Health Department for small water systems under county jurisdiction.
- Affected Water System: Designated personnel: Responsible person in charge of the affected water system (i.e., Water Quality, Specialist, Field Operations Supervisor, General Manager).

NOTE: IF the water system feels the event/circumstance requires IMMEDIATE issuance of a BWO/UWA and that public health is in serious risk, they may issue a BWO/UWA without first contacting the SWRCB DDW District Engineer. If that is the case, the water system must notify the SWRCB DDW, the County Health Officer, and the Environmental County Department immediately after issuing a BWO/UWA. Usually a water system will not issue a public notice without the approval (or advisement/guidance from SWRCB DDW) as they do not want to take on the sole responsibility for the public notice. In that sense SWRCB DDW, will partner with the water system to make the public health decisions whether to issue a BWO/UWA or not.

In the event the BWO, UWA, or Do No Drink Notice is issued by CVWD, the General Manager is the person who has the authority to issue the public notice.

If a BWO or UWA is issued, the General Manager will notify the EOC immediately.

CVWD will ensure that all public notifications (BWO, UWA, or Do Not Drink Notices) will be coordinated with the SWRCB DDW District Engineer, County Health Department, and the County Public Health Officer prior to issuing a public notice.

CVWD will notify the SWRCB DDW District Engineer, the County Environmental Health Department, and the County Public Health Officer prior to or immediately after issuing a public notice. Notice must be given to a person rather than a message left on voicemail. Appendix C

shows the primary, 1st Alternate, and 2nd Alternate contacts for the County Public Health Officer and the County Environmental Health Department.

CVWD has prepared a series of public notices and press releases for use during various emergency situations in accordance with the SWRCB DDW guidance. These notices can be found in Appendix D.

Summary of each of the notices, including guidance on when to issue each of them, is provided below.

Consumer Alert During Water Outages or Periods of Low Pressure: If the water system is experiencing power outages, water outages, or low pressure problems, a consumer alert may be issued to the public. The notice provides consumers information on conserving water and how to treat the water with household bleach if the water quality is questionable.

BWO: A BWO should be issued when minimum bacteriological water quality standards cannot be reasonably assured. To assure public health protection a BWO should be issued as soon as it is concluded by the designated personnel that the water supply is or may be biologically unsafe. Examples of these situations include:

1. Biological contamination of water supply system, including but not limited to:
    a. Positive total or fecal coliform bacteriological samples.
    b. Prolonged water outages in areas of ruptured sewer and/or water mains.
    c. Failed septic tank systems in close proximity to ruptured water mains.
    d. Ruptured water treatment, storage, and or distribution facilities in areas of known sewage spills.
    e. Known biological contamination.
    f. Cross-connection contamination problems.
    g. Illness attributed to water supply.
2. Unusual system characteristics, including but not limited to:
    a. Prolonged loss of pressure
    b. Sudden loss of chlorine or phosphate residual.
    c. Severe discoloration and odor.
    d. Inability to implement emergency chlorination or phosphate.
3. Implemented due to treatment inadequacies

UWA/Do Not Drink: In the event a water quality emergency due to known or suspected chemical (non-bacteriological) contamination to the water system, a UWA or Do Not Drink should be issued. Water should not be used for drinking and cooling but may be used for sanitation purposes. Examples of situations include:

1. Known or suspected widespread chemical or hazardous contamination in water supply distribution, including but not limited to:

   a. Ruptured water distribution system (storage tanks, mains) in area of known chemical spill coupled with loss of pressure.
   b. Severe discoloration or odor.
   c. Loss of chlorine residual.
2. Threatened or suspected acts of sabotage confirmed by analytical results, including but not limited to:
   a. Suspected contamination triggered by acts of sabotage or vandalism.
3. Emergency use of unapproved source to provide a supplemental water supply.
4. Terrorist contamination event.

3.5.3 Cancellation of Public Notification

Once a BWO/UWA is issued, the only agency that can rescind the public notice is the drinking water primacy agency.

SWRCB DDW will not lift the BWO until two rounds, collected one day apart, of coliform bacteria samples have been analyzed and the results are negative. CVWD will fax two sets of sample results to the SWRCB DDW Districts Office for final approval before rescinding the BWO.

Special chemical sampling will be required to rescind an UWA. CVWD will contact the SWRCB DDW District Office to determine required sampling.

Public notification templates can be found in Appendix D.

SECTION 4 - Emergency Plans and Procedures

This section contains plans and procedures that can be implemented in the event of a malevolent act or natural hazard that threatens CVWD's ability to deliver safe drinking water.

4.1 Core Response Procedures

Core procedures are the "building blocks" for incident specific response procedures, as they are typically implemented across a broad variety of incidents (e.g., wildfires, earthquake, flood). Below is a list all core procedures.

4.1.1 Access

Access	
Item	**Description**
Debris clearing	Dump trucks (2), backhoes (2), skip loader, portable shop vacuum, Laymor broom, skid steer, Vermeer chipper, maintenance trucks (9), boots, gloves, hardhats, googles.
Alternate routes	Hwy 18 is the main road in and out of the service area with Hwy 138 as an alternative access road
Identification badges	In addition to photo identification badges for all CVWD staff, registered emergency passes with the local Sheriff's office are provided to all field crew and managers . The registered emergency passes are renewed annually.

4.1.2 Physical Security

Physical Security	
Item	**Description**
Access control procedures	CVWD facilities have fencing and gates with lock access. This includes well sites, storage tanks and treatment facilities. Access to the office facility is controlled by keys.
Restricted areas	The main facility has an alarm system and requires key access. The General Manager, Office Manager and Field Supervisor have a key that access all areas of the facilities. Field staff have access to the first floor office facilities using a key. Customer service and administrative staff have access to the second floor using a key.
Evidence protection measures	See Appendix E for action plan in the evident of a terrorist and or physical attack. Applicable forms are found in Appendix F.
Security culture	The District carries out safety training on a regular basis with intermittent training specifically on physical security. The training is provided by the District's safety provider/workman's compensation.

4.1.3 Cybersecurity

Cybersecurity	
Item	**Description**
Disconnect procedure	If possible, disconnect compromised computers from the network to isolate breached components and prevent further damage, such as the spreading of malware.
Notification	In the event of a cyber attack the contracted IT service provider Computer Options will be contacted. In addition the Department of Homeland Security National Cybersecurity and Communications Integration Center (NCCIC) (888-282-0870 or NCCIC@hq.dhs.gov) may be contacted.
Assess procedure	Assess any damage to utility systems and equipment, along with disruptions to utility operations. Computer Options has remote access to utility systems and equipment.
Implementation processes	Implement actions to restore operations of mission critical processes (e.g., switch to manual operation if necessary) and provide public notification (if required).
Documentation	Appendix D provides forms to be used by staff to document key information on the incident, including any suspicious calls, emails, or messages before or during the incident, damage to utility systems, and steps taken in response to the incident (including dates and times)(Appendix A).

4.1.4 Power Loss

Power Loss	
Item	**Description**
Backup power systems	Generators located at the main facility and the Beacon Facility.
Power utility	To coordinate with SoCal Gas and SoCal Edison for expected restoration priorities and timing. Power utility contact information is listed in Section 3.3.2.
Fuel plan	Generator located at main office. Portable size generators can be transported on District trucks. Fuel is sourced through a Fleet account with the County Yard.
Maintenance plan	Maintaining generators during extended outages is critical. Monthly maintenance of generators occurs with yearly service checks. The Field Supervisor oversees the maintenance of generators.

4.1.5 Emergency Alternate Drinking Water Supplies

Emergency Alternate Drinking Water Supplies*	
Item	**Description**

Bottled or bulk water	Provider name: Crestline-Lake Arrowhead Water Agency Phone: 909-338-1779 Contact: Jennifer Spindler Cell: 909 222-3937
Bottled or bulk water	Provider name: Village of Enchantment Mutual Water Company Phone: 909-338-2310 Emergency: 909-432-2125

4.1.6 Sampling and Analysis

Sampling and Analysis

Item	Description
Sampling procedures	See Appendix A.
Pre-identified sampling locations	Potential sampling locations included but are not limited to tanks and reservoirs or entry and exit points from pressure zones.
Sampling containers and preservatives	See Appendix A.
Sample collection	CVWD will have the primary responsibility for all water sampling and monitoring activities during an actual or potential contamination event.
Sample transportation	Sample transportation during an emergency would be handled by the Field Supervisor (Steve Wood).
Laboratory capabilities	Clinical Lab of San Bernardino in Grand Terrace would handle all laboratory testing. Specialty testing for potential contamination such as in terrorist acts will be sent to the state laboratory.
Interpreting results	Water Quality Specialist (David Sale) would be responsible for interpreting sample results. Samples taken to the state laboratory would be analyzed and interpreted by state laboratory staff.

Local Contract/State/Federal Laboratory Contact List

Name	Address	Analytes/Methods	Phone	*Email or Website*
Clinical Laboratory of San Bernardino	21881 Barton Rd, Grand Terrace, CA 92313	Water quality sampling	909-825-7693	http://clinical-lab.com/
State Department of Health Services Sanitation and Radiation Laboratories Branch			909-383-4328 (DHS DWFO)	

4.1.7 Family and Utility Personnel Well Being

Family and Utility Personnel Well Being	
Item	**Description**
Family disaster plan	See description in the following section.
Assembly area	County Yard parking lot.
Supplies	Currently CVWD keeps in supply first aid kits, sanitary products, a water supply, and a cot. The District is in the process of added additional supplies to provide to personnel during an emergency scenario.
Extreme temperatures	Cold weather items (e.g., sand, salt, ice melt, tire chains, snowshoes) and hot weather items (e.g., pop-up shade canopies, water coolers, broad-brimmed hats).

Personnel Safety

The safety of CVWD staff, emergency responders, and the public is paramount during an emergency. This section provides basic safety information and procedures to be followed in an emergency, including a toxic or potentially toxic release of chlorine or other chemical agents from a water treatment plant. Additional information regarding proper procedures during and after a chemical release can be found in the associated AP. This section will cover Facility Protective Actions, Personnel Accountability, Public Notification for Protective Actions, and Emergency First Aid procedures.

Facility Protective Actions

Facility protective actions include sheltering-in-place, evacuation, and a combination of the two. The CVWD General Manager or their designee will carefully consider at least the following items when determining the appropriate protective action decision:

- If a hazardous material is involved, its characteristics, amount, release rate, physical state, ambient temperature, and location
- The employees at risk, the capability, and resources to recommend a protective action.
- The time factors involved in the emergency and their effect on the selected protective action.
- The effect of the present and predicted meteorological conditions (on the control of the hazardous material, storm warnings, etc.) and the feasibility of the protective actions.
- The capability to communicate with both the employees at risk and emergency response personnel before, during and after the emergency.
- The capabilities and resources of the facility to implement, control, monitor and terminate the protective action.

Evacuations

- Facility evacuation should follow the pre-designated evacuation routes from buildings and plant grounds.

- These evacuation routes are posted at ***the entrance to all buildings and within employee break areas.***
- If an evacuation is ordered by the General Manager / Security Director all employees shall report to the pre-designated assembly areas shown on the evacuation plans to be accounted for by their ***supervisor, assembly area coordinator or other pre-designated individual.***
- Supervisors are responsible to assure their disabled employees are provided with adequate assistance during the evacuation.

Shelter-in-place

- Sheltering in place should occur in the pre-designated facilities and locations.
- Locations should be equipped with emergency medical supplies and provisions.

Personnel Accountability

- All designated assembly areas are indicated on the facility evacuation plans.
- All personnel are responsible to report to their designated assembly area.
- ***Supervisors*** are responsible to assure all their personnel have reported after an ordered evacuation.
- Personnel who are not accounted for at the assembly area must be reported to the General Manager to assure a proper response is coordinated. This response may include checking with other assembly areas, radio communication, or organization of a formal search.
- No search of a contaminated area should be performed unless all rescue personnel are fully equipped and trained for the expected hazards.

Off-site Protective Actions

Some hazardous materials hazards have the potential to affect off-site personnel and the local response agency may request support in making protective action decisions for the general public surrounding your facility.

CVWD will respond to requests from the local agencies for recommendations, or protective actions for the general population surrounding the facility.

First Aid and Emergency Medical Treatment

- Call (911) for medical assistance
- Assure emergency medical care is provided to injured persons, as necessary until off-site medical personnel arrive.
- If trained, provide emergency first aid for victims of heart attack, strokes, severe bleeding, and shock.
- General Manager should designate a supervisor to coordinate off-site ambulance and medical assistance.

- Victims may need to be decontaminated if the emergency involves hazardous material.
- Control the scene to avoid further spread of contamination.
- Obtain accurate information on the health hazards of the material from Local Emergency Response Team, Safety Officer, Material Safety Data Sheets, or the Poison Control Center.
- Determine if there is a risk of secondary contamination to personnel or emergency transport vehicles/hospitals.
- If needed, follow your pre-determined decontamination protocol which should include removing wet or exposed clothing, flushing affected skin and hair with water, and using soap or shampoo for oily substances.
- Provide post-emergency medical evaluation as required by OSHA.

Protective Actions Protocol

The protocols that CVWD uses for sheltering-in-place and for evacuation are described below.

Shelter-in-Place Protocol

Evacuation during emergency incidents is sometimes, but by no means always, necessary. The emergency situation can escalate so rapidly that there would be no time to evacuate personnel. For hazardous weather conditions, a prudent course of action, for the protection of the potentially affected employees/personnel, would be to remain inside with the doors and windows closed. The responsible for determining whether sheltering-in-place is the most appropriate response to protect the vulnerable employees. If the decision is to shelter-in-place, then the affected employees will be advised to follow these guidelines to reduce the chance of being injured:

- Provide Information on the procedure to employees and visitors on the facility public address system. If the information is provided to a local agency at their request, it should be coordinated through the Facility EOC.
- Close all doors to the outside and close and lock the windows
- Inform staff to assemble at the specify location (preferred locations are windowless rooms)
- Close as many internal doors as possible.
- If an outdoor explosion is possible, close drapes, curtains, and shades over windows, stay away from windows to prevent potential injury from flying glass.

Evacuation Procedures

This evacuation procedure identifies the areas to be evacuated, as well as the warnings and instructions to personnel that must be provided. The assembly and shelter locations are identified in the posted facility evacuation plan.

Evacuation Areas

The evacuated areas may be expanded by the on-site or off-site Incident Commander. An incident resulting in off-site consequences (hazardous materials incident) shall determine evacuation requirements in conjunction with appropriate external agencies.

Decisions on evacuation are incident-specific and must be made at the time of incident. Estimated vulnerable zones that may be provided with the incident specific checklists should be used for planning purposes only and should not be used peremptorily in an emergency response situation.

Evacuation Warning and Instruction

Once the area to be evacuated has been identified, it is necessary to inform employees that they must evacuate:

- **Facility Personnel**

- Public address system - Using either voice and/or tones, that are pre-established and exercised evacuation routes and procedures.
- Person-to-person -not very rapid but can be very thorough.
- Combination of both public address and person-to-person

- General Public (Responsibility of Local Public Responders)

Although protective actions for the general public are not the responsibility of the Crestline Village Water District this information may be helpful if CVWD is requested to provide recommendations to the local Incident Commander:

- Door-to-door -Requires significant personnel and is a slow process, but is very thorough
- Public address system (from a mobile unit or within a building) - Requires less personnel than door-to-door and is quicker to accomplish, but is not as thorough
- Combination of Door-to Door and Public Address system - Dependent on the area to be evacuated a combination of methods of instruction may be warranted.

The method used to accomplish the evacuation will be determined by the Incident Commander and will be incident and site specific. The evacuees should be told to report to their designated assembly areas and wait for further instructions.

Evacuee Assembly Areas

Evacuee assembly areas must be pre-designated for each area of the facility. Depending upon the conditions and requirements for the particular emergency, the Incident Commander may move or modify assembly area locations. The location of the Evacuee Assembly Areas is:

Office/Maintenance Facility: Assembly area is located in the County Yard adjacent to the office facility.

Each manager/supervisor shall be responsible for head counts, assembly security and safety, and will communicate with the Incident Commander to obtain support for various needs, such as food, water, medical aid, or transportation.

Shelter Locations

As necessary, the Incident Commander will select the most appropriate shelter from pre-identified shelter locations from the following list:

Office/Maintenance Facility

Once the shelter location has been determined, the shelter information will be disseminated to the following:

- Incident site personnel
- Assembly area personnel
- EOC, if activated
- Responders on-site: for example, the communications coordinator and the Medical Unit.

Once the facility employees are notified to evacuate, they will proceed to their designated shelter.

The medical unit will be notified of the shelter locations and be provided with information on any injuries or the type of hazardous material and any known exposures.

Once an area is evacuated, the General Manager / Security Director or their designee must secure the area. Personnel operating in or around an evacuated area must not be located in a hazardous or potentially hazardous area that would necessitate the use of personnel protective clothing or place them in an unsafe condition.

4.2 Incident-Specific Response Procedures

Applicable Incident-Specific Response Procedures (ISRPs) or Action Plans, are provided in Appendix E. This includes specialized procedures tailored to an incident type. Incidents may include the following:

- Cybersecurity
- Power Outage
- Earthquake
- Extreme Cold and Winter Storms
- Water Supply Interruption
- Employee Assaulted with Weapon
- Wildfire
- Source Water Contamination
- Distribution System Contamination
- Bomb Threat
- Structural Damage from Explosive Device
- Chemical Release

SECTION 5 - Water Quality Sampling

During an emergency there are several types of water quality sampling that may need to be analyzed depending on the actual event. If it is a natural disaster, earthquake, or power outage, sampling will likely only include bacteriological samples, turbidity, and chlorine residual samples if the system is chlorinated. If the event is a terrorist act or contamination event, the sampling will include a full scan of Weapons of Mass Destruction (WMD) chemical, radiological, and microbiological, unless the actual contaminant used is known.

5.1 Laboratory Results

In general there are four different types of ownership of laboratory facilities in California that can analyze drinking water samples.

This includes:

1. Commercial/privately owned laboratories
2. County Public Health Laboratories
3. State Department of Health Services Laboratories
4. Research Facility/Specialty Laboratories

In general laboratories are grouped into two broad categories: chemical or biological. Chemical laboratories include general environmental chemistry laboratories, radiological laboratories, and specialty laboratories that may be able to handle and analyze exotic contaminants, including chemical weapons and radionuclides. Biological laboratories include environmental microbiology laboratories and the Laboratory Response Network (LRN) that typically analyzes clinical samples for pathogens and select biotoxins. LRN reference laboratories are responsible for investigating, testing and/or referring suspect specimens. There are three levels of laboratories under LRN.[1]

Level 3 Laboratories: Nine laboratories are designated as Level 3 laboratories. All 53 laboratories have Level 3 capacity. These laboratories work with hospitals and other first responders within their jurisdiction to maintain competency in clinical specimen collection, storage, and shipment.

Level 2 Laboratories: Thirty-four labs are designated as Level 2 laboratories. Chemists in these laboratories are trained to detect exposure to a number of toxic chemical agents. Analysis of cyanide, nerve agents, and toxic metals in human samples are examples of Level 2 activities.

Level 1 Laboratories: Ten laboratories currently participate in Level 1 activities. These laboratories, which serve as surge-capacity laboratories for the CDC, are able to detect the toxic chemical agents that Level 2 laboratories can detect plus exposure to an expanded number of chemicals, including mustard agents, nerve agents, and other toxic industrial

[1] https://www.aphl.org/aboutAPHL/publications/Documents/WORK_BlueBook.pdf

chemicals. Using unique high-throughput analysis capabilities, they expand CDC's ability to analyze large number of patient samples when responding to large-scale exposure incidents.

5.2 California Department of Health Service (CDHS) Laboratory

The CDHS Sanitation and Radiation Laboratories (SRLB) is organized within the Division of Drinking Water and Environmental Management. SRLB is the State's primary drinking water quality testing laboratory and is the only State laboratory capable of measuring environmental radiation. Its primary mission is to provide analytical services, reference measurements, and technical support pertaining to the State's Drinking Water and Radiological Health Programs. SRLB has two laboratories. The Southern California Section is located in Los Angeles and performs microbiological, inorganic, and organic testing in various water matrices. The Northern California Section laboratory is located in Richmond and performs inorganic and organic analyses in water, and radiochemical testing in various environmental matrices in addition to water. The SRLB in conjunction with the CDHS Microbial Disease Laboratory (MDL) does microbiological analyses including biotoxins.

5.3 California Mutual Aid Laboratory Network

The CDHS SRLB in conjunction with the water utilities, USEPA Region 9 laboratory in Richmond, Lawrence Livermore National Laboratory, and the California Department of Water Resources (DWR) have formed a laboratory network known as the California Mutual Aid Laboratory Network (CAMAL Net). The CAMAL Net addresses laboratory capacity issues associated with possible drinking water-related contamination events. CAMAL Net establishes a triage system to process samples when water systems or commercial laboratory methods are not available, or the water system lacks capacity within their own lab. The CAMAL Net system will not handle any samples where field screening indicates the sample may contain a Center for Disease Control (CDC)-listed WMD agent. The list of WMD agents can be found on the CDC website at https://emergency.cdc.gov/bioterrorism/. Any request for analysis through the CAMAL Net systems needs to be approved by the SWRCB DDW District Engineer in CVWD's jurisdiction prior to collection of water quality samples to be processed.

5.4 Biological Analysis

The LRN for Bioterrorism has ranked laboratories has ranked laboratories (Level a, B, C, or D) based on the type of safety procedures practiced.

- Level A Lab uses a Class II biosafety lab (BSL) cabinet.
    - Level A Labs are used to rule out and forward organisms.
- Level B Lab is a BSL-2 facility + BSL-3 safety practices.
    - Level B Labs are used for limited confirmation and transport.
- Level C Lab is a BSL-3 facility.
    - Level C Labs are used for molecular assays and reference capacity.

- Level D Lab is a BSL-4 facility.
    - Level D Labs are used for the highest level of characterization.

Currently in California, there are 28 Level A Labs, 10 Level B Labs, and two Level C Labs. The Los Angeles County Public Health Laboratory in Los Angeles and the CDHS MDL in Richmond are the two level C laboratories. The Lawrence Livermore National Laboratory is also a Level C laboratory, but access to the lab is restricted. The only Level D laboratories available in the LRN are the national laboratories including the CDC and the Department of Defense. These laboratories test and characterize samples that pose challenges beyond the capabilities of the Level A, B and C reference labs. They also provide support for other LRN members during a serious outbreak or terrorist event. The most dangerous and or perplexing pathogens are handled only at the Bio-Safety Level 4 laboratories at the CDC and the United States Army Medical Research Institute of Infectious Diseases.

5.5 Natural Disaster

During a natural disaster, winter storm, earthquake, fire, etc. sample collection, and analysis will be available to CVWD by the normal laboratory resources. Sampling will primarily consist of regulatory bacteriological samples and turbidity to show that the system has been flushed out. CVWD may also collect chlorine residual samples throughout the system with a field chlorine test kit.

5.6 Terrorist Event/Contamination Event

Once a threat warning has occurred and CVWD has deemed the threat confirmed, it will be necessary to collect water quality samples. The decisions made from the time of the threat warning to the time the threat is confirmed is specific to each individual event. This “credibility stage” may take between 2 and 8 hours and should involve consultation with local first responders, SWRCB DDW, local Health Department, and the regional Federal Bureau of Investigation (FBI) office. For more detail on sampling during various stages of threat confirmation, see Action Plans 1A, 1B, 1C (Appendix E).

Assuming the threat is credible enough to warrant water quality sampling, several state and federal agencies are involved to collect samples, transport the samples to appropriate laboratories, and to analyze the samples.

CVWD’s first step in this process is to contact the SWRCB DDW District Engineer so the utility can notify the CDHS-SRLB of the incoming samples. The following steps are described in more detail below:

- Emergency Water Quality Sampling Kit (EWQSK)
- Sample Collection
- Laboratory Required for Analysis
- Sample Transport

- Sample Analysis

The original sample kit was developed by the Metropolitan Water District of Southern California to be used during a terrorist or contamination event. USEPA reviewed the sample kit and provided a list of the sample bottles in the USEPA Toolbox. The CAMAL Net has also reviewed this kit and made some minor changes that will allow water quality samples to be collected under all conditions. The CAMAL Net version of the sample kit has been finalized for deployment. This kit will continue to evolve as the USEPA develops sampling protocols for these new constituents in drinking water. The estimated cost of a kit is approximately $200.
CDHS will purchase the supplies to create enough EWQSK to supply 2-3 in each DWP District Office. If the water systems do not want to purchase and maintain their own kits, then the CDHS will provide one of these kits in the event of an emergency. Requests for these kits should be made to the District Engineer when the water system reports the incident. Travel time from the District Office to the water system should be incorporated in the water system's emergency response plan.

5.6.1 Emergency Water Quality Sampling Kit

EWQSK contain sample bottles needed for chemical, radiological, and microbiological analysis that can be split into three complete sample sets. The EWQSK should remain sealed before the sample is collected. Since some of the sample bottles contain reagents that expire, the bottles in each kit are replaced annually.

5.6.2 Sample Collection

Several types of samples may need to be collected depending on the event. Sampling protocol includes:

- CVWD will collect samples for public health to determine if the water is safe for consumption using the EWQSK for public health.
- CVWD will assist the FBI as requested to collect samples for the crime scene investigation.
- CVWD will also aid, as requested, to responding agencies such as local HAZMAT, FBI, California National Guard Civilian Support Team (CST), or USEPA.
- Proper personal protection material will be used at all times to minimize exposure to any possible agent, and all personnel involved in sampling activities will be properly trained.

5.6.3 Laboratory

Depending on the results of the filed screening and actual event, the required laboratories will be notified and prepared to accept samples. If an EWQSK (supplied by CVWD or SWRCB DDW) is used, the CAMAL Net and the Laboratory Response Network (LRN) will be notified and involved in the process of laboratory selection. The first step in this process is for the District Engineer working with CVWD to contact SRLB.

5.6.4 Sample Transport

Depending on the field screening results and the responding agencies, the ICS will decide how the samples will be transported to the appropriate laboratory. As samples may be used for crime investigation, proper chain-of-custody must be maintained. The possible agencies, depending on the event, are HAZMAT teams, CHP, FBI, CST, or USEPA.

5.6.5 Sample Analysis

Once the samples are delivered to the appropriate laboratory, they may be split for analysis to different laboratories. The CDHS SRLB laboratory will handle the transport and laboratory testing protocols. Sample results will be shared through the ICS. Sample analysis may take days to weeks to complete depending on the complexity of the analysis.

5.7 CVWD Water Sampling and Monitoring Procedures

CVWD will have the primary responsibility for all water sampling and monitoring activities during an actual or potential contamination event. CVWD's Water Quality Sampling guidelines and protocols are provided in Appendix A.

If outside laboratory assistance is needed, CVWD will contact the following laboratory facility:

Outside Laboratory Name	Contact Number	Capabilities
Clinical Laboratory	Regular hrs.: (909) 825-7693 After hours: (909) 825-7693	All Necessary Tests

SECTION 6 - Mitigation

6.1 Alternative Source Water Options and Interconnected Utilities

A list of information on alternative source water options and interconnected utilities to mitigate impacts during incidents is provided below.

6.1.1 Alternative Source Water Options

Alternative Source Water Options

Type	Location	Comments
Crestline-Lake Arrowhead Water Agency	24116 Crest Forest Drive, Crestline, CA 92325	Regional Wholesale supplier
Valley of Enchantment Mutual Water Company	22999 Waters Drive, Crestline, CA 92325	Currently no connection.
Lake Gregory	Crestline, CA 92325	Draft from Lake

6.1.2 Interconnected Utilities

Interconnected Utilities

Utility Name	Location	Contact Information	Comments
Crestline-Lake Arrowhead Water Agency	Crestline	909-338-1779	Wholesaler supply of approximately 220 AFY.

Alternate water sources are described in this section.

6.1.3 Alternate Raw Water Sources

CVWD has 1 alternate and independent raw water sources:

- ***Water Well - Chillon 64***

· Each of these raw water services can supplement the water supply if the other sources are compromised.

6.1.4 Interconnects and Agreements with Other Utilities

There are 3 other water utilities within the regional area, Crestline-Lake Arrowhead Water Agency, Valley of Enchantment Mutual Water Company, and Cedarpines Park Mutual Water Company. These water utilities have their own water supply and treatment systems. To enable CVWD to have uninterruptible water service capability, bypass turnout valve connections from CVWD's water distribution system to Crestline-Lake Arrowhead Water Agency are in place and are currently maintained by Crestline-Lake Arrowhead Water Agency.

6.1.5 Water Sources for Short-Term Outages

Possible alternate water supply options for short-term outages include the following:

- Crestline-Lake Arrowhead Water Agency
- Local supermarket

6.1.6 Amount of Water Needed for Various Durations

Typical residential water usage in the United States is on the order of 300 to 500 gallons per day. Although these can typically be significantly reduced during crisis situations, CVWD has found it useful to develop an estimate for the quantity of supplemental water required for a number of potential outage scenarios.

These estimates are as follows:

Outage Period	Number of customers affected	Quantity Needed
1 hour	600	(600 customers) * (300 gallons / day / 24 hours) = 7,500 gallons
12 hours	1,200	(1,200 customers) * (300 gallons / day / 2) = 180,000 gallons
1 day	4,850	(4,850 customers) * (300 gallons / day) = 1,455,000 gallons
2 days	2,400	(2,400 customers) * (300 gallons / day * 2 days) = 1,440,000 gallons
1 week	1,200	(1,200 customers) * (300 gallons / day * 7 days) = 2,520,000 gallons

6.2 Other Mitigation Actions

Below is a list of other mitigation procedures or projects implemented or considered at CVWD.

Mitigation Actions

Type	Location	Comments
Drought – outreach education	District website	Conservation resources available to customer to encourage water conservation during times of drought.
Earthquake	All facilities	Anchored equipment (e.g., computers, bookshelves) as well as laboratory equipment and chemical and fuel tanks.
Wildfire	All facilities	Removal of debris, dead trees, and other fire hazard materials. Fire protective measure taken for the protection of storage tanks and treatment facilities.
Physical intrusion	All applicable facilities	Security fencing and locks at facilities.
Cyber attack		Train and drill employees on cybersecurity, including cyber incident response. Segregate process control networks and applied firewalls. Use of strong passwords and monitoring network intrusions.
Power outage	All applicable facilities	Coordination with SoCal Edison to prioritize restoration of key facilities. Use backup generators at key facilities to prevent service interruption. Maintain fuel on-site and or have County Yard to provide fuel.
Contamination	Treatment sites	Train servicemen and specialists to prevent contamination. Install backflow prevention.

SECTION 7 - Detection Strategies

This section contains strategies that can be used to aid in the detection of malevolent acts or natural hazards that threaten the security or resilience of the system.

The list below provides the detection strategies and methods used to aid in the detection of malevolent acts or natural hazards. Also included is the corresponding procedure to be used if the threat is detected.

Detection Strategies

Threat	Detection Method	Procedure
Unauthorized entry	• Alarm from intrusion detection system	Call 911
Source water contamination	• National Response Center notifications • Notification from 911 for releases resulting from transportation accidents	Source Water Contamination Incident Action Plan
Distribution system contamination	• Customer complaint surveillance • Public health surveillance	Distribution System Contamination Response Action Procedure
Cyber intrusion	• Automated IT and operation technology (OT) system intrusion detection monitoring • Notification from utility staff	Cyber Incident Action Plan
Hazardous chemical release	• Chlorine gas in air monitors	Call fire department
Power outage	• Notification from energy provider • Alarm from line power sensor, email notification	Generator Start-up Checklist
Wildfire	• Notification by USDSA Forest Service. • Customer or personnel • Fire Department	Call fire department.

SECTION 8 - Emergency Response, Recovery, and Termination

8.1 Response Phase

8.1.1 Initial Response

When a situation occurs that is judged to be an emergency, "out of the ordinary," or of a suspicious nature, the person who first notices the situation should determine whether an immediate response by police, fire, or emergency medical services is necessary. If so, immediately call 911 to report the incident. Next report the incident to your supervisor.
General information to be reported from CVWD facilities (or incident sites) includes:

- What has happened?
- What can be done about it?
- What is needed?
- An assessment of whether the situation calls for activation of the CVWD EOC.

Additionally, immediate specific information should include the status of CVWD's:

- Personnel
- Equipment
- Vehicles
- Communications capabilities
- Facilities

The employee who first noticed the incident and the Supervisor that has responded should:

1. Notify the WUERM or the Alternative WUERM as soon as possible.
2. Remain in a safe location in the vicinity to meet and assist medical, fire, and police personnel and other first responders as necessary.

8.1.2 Damage Assessment

Damage assessment is used to determine the extent of damage, estimate repair or replacement costs, and identifies the resources needed to return the damaged system to full operation. This assessment is accomplished during the emergency response phase of the event before the recovery phase is implemented.

The General Manager or WUERM is responsible for the establishment of a Damage Assessment Team. The CVWD Damage Assessment Team will be led by an operations supervisor, with representatives from engineering, management, and procurement. Team composition may vary, however, depending upon the nature and extent of the emergency.

Damage assessment procedures should follow the guidelines established for system operability checks and determination of operability/serviceability. At a minimum, the damage assessment team will:

1. Conduct an initial analysis of the extent of damage to the system or facility.
2. Estimate the repairs required to restore the system or facility. The estimate should consider supplies, equipment, rental of specialized equipment (e.g. cranes), and additional staffing needs.
3. Provide this estimate to the procurement representative for a cost estimate to conduct repairs.

Appendix F contains a damage assessment form and incident reports that can be used for all CVWD facilities.

8.2 Recovery Phase

8.2.1 Recovery Plan

During emergency response operations, the Incident Commander or WUERM will appoint a Recovery Manager. The Recovery Manager is responsible for selecting a recovery team and developing a recovery strategy prior to emergency termination.

The CVWD Recovery Manager will be a senior operation representative familiar with the systems that may be affected by the emergency. He/she will have the responsibility and authority to coordinate recovery planning; authorize recovery activities; protect the health and safety of workers and the public; and initiate, change, or recommend protective actions.

Additional responsibilities of the CVWD Recovery Manager include:

- Facilitate the transition from emergency to recovery operations.
- Develop, implement, and maintain the Recovery Plan.
- Coordinate all vendor and contractor activities that occur on-site.
- Ensure that the appropriate safety inspections have been completed.
- Coordinate the completion of emergency repairs and schedule permanent repairs.
- Notify key agencies of emergency repair status and the scheduled completion of system repairs.
- Complete permanent repair and or replacement of system facilities.
- Review press releases prior to distribution.
- Release repaired facilities and equipment for normal use.
- Replace, or authorize the replacement of, materials and supplies used in the emergency.
- Document all recovery activities.

The Recovery Manager determines the expertise and selects the personnel necessary for the recovery team. In general, the composition of the recovery team is based on the nature and extent of the emergency. This may include:

- Technical advisors to the Recovery Manager, which may include external experts such as industrial hygienists or fire protection specialists.
- Utility personnel with the technical expertise to direct post-incident assessment activities and to analyze the results. Maintenance, operations, and engineering staff are expected to fill these positions.
- The General Manager will respond to inquiries or concerns from employees, the public, the news media, and outside agencies. The General Manager should be prepared to provide information regarding the results of the incident investigation, the extent of on-site and off-site impacts, and the status of recovery operations.

8.2.2 Recovery Activities

The following activities will be directed by the Recovery Manager and will be executed by the recovery team as required following an incident or emergency situation.

- Notify all appropriate regulatory agencies that the recovery phase is underway.
- Install warning signs, barriers, and shielding as needed.
- Take measure to protect workers and the public from hazardous exposures.
- Complete detailed evaluations of all affected water utility facilities and determine priorities for permanent repairs to the system and un-tag repaired facilities and equipment.
- Restore all telecommunications, data processing, and similar services to full operation.
- Complete assessment of loss and costs for repair and replacement. Determine approximate reimbursement from insurance and other sources of financial assistance and determine how residual costs will be financed by the water utility.
- Define needs for additional staff, initiate recruitment process, and adopt temporary emergency employment policies as necessary.
- Execute agreements with vendors to meet service and supply needs.
- Address needs for handling and disposing of any hazardous waste generated during recovery activities.
- Control discharge as a result of recovery activities within regulatory and environmental compliance limits.
- Reevaluate need for maintaining the emergency management organization; consider returning to the normal organizational structure, roles, and responsibilities when feasible.
- Collect cost accounting information gathered during the emergency and prepare request for Emergency Disaster Funds (following Federal Emergency Management Agency (FEMA) and State OES requirements).
- Debrief staff to enhance response and recovery efforts in the future by identifying lessons learned, developing action plans and follow up mechanisms, and provide employee assistance programs as needed.
- Prepare After-Action Reports as required. Complete reports within 6 months of the event.

8.3 Termination and Review Phase

The Recovery Manager will officially terminate the recovery phase when normal operations are resumed at all facilities affected by the emergency. Termination and review actions include the following:

- Initiate permanent reconstruction of damaged water utility facilities and systems.
- Obtain inspections and or certifications that may be required before facilities can be returned to service.
- Restore water utility operations and services to full pre-event levels.
- Determine how emergency equipment and consumable materials should be replenished, decontaminated, repaired, or replaced.
- Identify operational changes that have occurred as a result of repair, restoration, or incident investigation.
- Document the recovery phase and compile applicable records for permanent storage.
- Continue to maintain liaison as needed with external agencies.
- Update training programs, the CVWD ERP, and standard operating procedures, as needed based upon lessons learned during the emergency response and recovery phase of the event.

SECTION 9 - Emergency Plan Approval, Update, Training, and Exercises

This section of the ERP describes the plan review and approval process, the practice and update schedule, plan for assessment of the ERP effectiveness and training, exercises, and drills of the ERP.

9.1 Plan Review and Approval

The CVWD process for review and approval of the ERP is described in the sections below.

9.1.1 CVWD Approval Authority

This plan is intended to be a living document that is reviewed regularly and updated as needed to ensure that the information it contains is correct. The ERP will be reviewed and approved by the General Manager and other approval personnel. The plan will undergo an initial review and approval process and will be reviewed and signed off by the General Manager after each revision. A revisions log is found in the front of this ERP.

9.1.2 Local Government Approval

CVWD will review this plan annually for coordination and consistency with the City's emergency planning programs.

9.2 Practice and Update of Schedule

The schedule for training, updating and review of the ERP is discussed below.

9.2.1 Schedule and Responsibility for Training and Exercises

A schedule for general security training and incident-specific exercises/drills for testing of the emergency response plan will be developed and reviewed annually.

The exercises, drills and training sessions will be conducted annually or more frequently if the General Manager deems it necessary.

The General Manager the contracted IT and workmen's compensation firms will be responsible for the organization and management of the security training program.

9.2.2 Schedule for ERP Review and Update

The General Manager will review and update the ERP and APs as follows:

- Annually prior to the annual ERP/AP training sessions,
- Upon update of the Risk and Resilience Assessment,
- Following the ERP exercises, or
- Within 2 months of any significant plan modification or water system change.

- Immediately when there is a utility staff change where the staff member was named in the ERP.
- Immediately when there is a change in the roles and responsibilities of anyone involved in response activities.
- Immediately upon changes in internal and external contact information.

9.3 Assessment of ERP Effectiveness

The CVWD staff will perform audits of the program on a periodic basis to ensure that procedures and practices developed under the ERP are adequate and being implemented properly.

One method of audit will be through exercises and drills. Member of CVWD management will act as observers during exercises and will evaluate the staff's performance in responding to emergency incidents as well as the overall effectiveness of the ERP in accomplishing the goals. CVWD management will review the results of the evaluation, and the ERP and APs will be updated as appropriate to incorporate any lessons learned from the exercises.

The ERP Program will also be discussed as an agenda item during a General Manager's meeting each time the risk and resilience assessment is updated. At this time, CVWD management and staff will discuss the need to update or augment the ERP based on new information regarding threats or critical asset vulnerability.

The General Manager will maintain a file of ERP assessment and after action reports.

9.4 Training, Exercises, and Drills

All CVWD personnel that may be required to respond to emergencies will receive initial and refresher training classes on the ERP. The training will be conducted annually or when any of the following occurs:

- New employees are hired.
- Special emergency assignments are designated to operations staff.
- New equipment or materials are introduced.
- Procedures are updated or revised.

The training may consist of the following programs described below.

Orientation Sessions
The orientation sessions will include basic instruction and explanation of the ERP and AP procedures. Written tests may be used to ensure some level of comprehension by the attendees.

Tabletop Workshop
Tabletop workshops involve developing scenarios that describe potential problems and providing certain information necessary to address the problems. Employees will be presented with a

fabricated major event. They will then verbally respond to a series of questions and then evaluate whether their responses match what is written in the ERP.

Functional Exercises

The function exercises are designed to simulate a real major event. A team of simulators are trained to develop realistic situations. By using a series of pre-scripted messages, the simulation team will send information to personnel assigned to carry out the ERP procedures. Both the simulators and personnel responding to the simulation are to focus on carrying out the procedures to test validity of the ERP.

Full-scale Drills

Emergency response personnel and equipment are actually mobilized and moved to a scene. A problem is presented to the response personnel, and then they respond as directed by the ERP and the General Manager or Alternative WUERM at the scene.

Water Quality Emergency Notification form is provided in Appendix G.

SECTION 10 - References and Resources

The following list of references and internet links were utilized to provide additional water system security and ERP information.

Agency for Toxic Substances and Disease Registry (ATSDR): ATSDR is directed by congressional mandate to perform specific functions concerning the effect on public health of hazardous substances in the environment. These functions include public health assessments of waste sites, health consultations concerning specific hazardous substances, health surveillance and registries, response to emergency releases of hazardous substances, applied research in support of public health assessments, information development and dissemination, and education and training concerning hazardous substances. http://www.atsdr.cdc.gov/. Accessed on March 28, 2022.

American Water Works Association (AWWA): USEPA training developed through partnership with AWWA covers the entire spectrum of security issues including assessing vulnerabilities, emergency response plans, and risk communication. https://www.awwa.org/Resources-Tools/Resource-Topics/Risk-Resilience. Accessed on March 28, 2022.

California Department of Health Services Drinking Water Programs: The SWRCB DDW is the drinking Water Primacy Agency for all California public water systems serving over 200 service connections. CDHS has published a guidance document to assist California public water systems in developing or revising their emergency response plan. https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/security/0315_ca_erp_template.doc. Accessed on March 28, 2022.

Department of Homeland Security (DHS): The DHS is the overall lead agency for homeland security issues. DHS will become involved in incident response if needed. http://www.dhs.gov/dhspublic. Accessed on March 28, 2022.

Federal Emergency Management Agency (FEMA): FEMA's mission is to reduce loss of life and property and protect our nation's critical infrastructure from all types of hazards through a comprehensive, risk-based, emergency management program of mitigation, preparedness, response, and recovery. FEME takes the lead if an incident is assigned to DHS. http://training.fema.gov/EMIWeb/IS/crslist.asp. Accessed on March 28, 2022.

National Rural Water Association (NRWA): NRWA developed the SEMS Software Program, that can be loaded on a personal computer. It is based on NRWA/ASDWA's *Security Vulnerability Self-Assessment Guide for Small Drinking Water Systems Serving Populations Between 3,000 and 10,000.* http://www.nrwa.org/. Accessed on March 28, 2022.

The Association of State Drinking Water Administrators (ASDWA): ASDWA has information on water security planning, training, and links to state programs and other information sources. http://www.asdwa.org. Accessed on March 28, 2022.

The Center for Disease Control and Prevention (CDC): The CDC develops resources to assist hospital staff, clinics, and physicians in diagnosing diseases related to terrorism, reporting incidences of disease, and controlling the spread of infection. Centers for Disease Control and Prevention (cdc.gov). Accessed March 28, 2022.

- To assist in the development of Public Health Response Plan, the CDC published a planning guidance document entitled *The Public Health Response to Biological and Chemical Terrorism: Interim Planning Guidance for State Public Health Officials* (July 2011), which can be found at: https://emergency.cdc.gov/documents/planning/PlanningGuidance.pdf. Accessed March 22, 2022

United States Environmental Protection Agency (USEPA): USEPA has numerous resources available. The following key resources:

- Drinking Water Utility ERP Template and Instructions at https://www.epa.gov/waterutilityresponse/develop-or-update-emergency-response-plan#DW. Accessed March 28, 2022
- Water Infrastructure Security information, guidance, and training information can be found at https://www.epa.gov/waterriskassessment/epa-cybersecurity-best-practices-water-sector. Accessed March 28, 2022.
- Information on Local Emergency Planning Committees (LEPCs) can be found at: Fire & Rescue Local Emergency Planning Committee. Accessed March 28, 2022

Appendix A Water Quality Sampling

APPENDIX A WATER QUALITY SAMPLING GUIDELINES

- Appendix 20 - Sampling Guidelines

Emergency Water Sample Collection Kit

Item	Quantity	Notes
Field Resources and Documentation		
Field guide	2	Resource for field personnel
Health and safety plan	2	If required for the site
Sample labels	48	Waterproof (filled out in advance, if possible)
Sample documentation forms	24	For recording sample information
Custody tape (or seals)	2 rolls	Used on sample or shipping containers
Chain of custody forms	24	For documenting sample custody
Lab marker	2	Waterproof, 1 red, 1 black
General Sampling Supplies		
Sample containers	Table 3-2	For collecting samples
Device for grab sampling	1	For sampling large water bodies
10 liter HDPE container	4	For collection of large volume water samples
Lab grade tape	3 rolls	For temporary labeling in the field
Miscellaneous glassware	N/A	Beakers, graduated cylinders, spatula, etc.
Collapsible cooler	1	For sample storage
Rigid shipping container	1	For shipping by overnight service if needed.
1 qt. zippered freezer bags	1 pack100	For double bagging ice and sample containers
Thermometer	2	For checking water temperature
Paper towels	2 rolls	Wiping wet containers and containing spills
Pathogen Sampling Supplies		
Tubing and clamp	1	For sample tap flushing, etc.
Stopwatch & graduated cylinder	1	For measuring flow rate
Ultrafiltration apparatus	1	For concentrating pathogen samples
Reagents (may need to be kept separate from the rest of the kit)		
Laboratory grade water	5 liters	For sample dilution in the field
Sodium thiosulfate crystals	100 grams	For water sample dechlorination
Ascorbic acid	100 grams	For water sample dechlorination
Sodium sulfite crystals	100 grams	For water sample dechlorination
Potassium dihydrogen citrate	100 grams	For carbamate preservation
6 Molar ACS grade hydrochloric acid (HCl)	25 mL	In dropper bottle for preservation of samples for organic analyses
6 Molar trace metal-grade nitric acid (HNO_3)	25 mL	In dropper bottle for preservation of samples for trace metals analysis
10 Normal Sodium hydroxide (NaOH)	25 mL	In dropper bottle for preservation of samples for cyanide analyses
pH paper in ranges from 0 - 4 and 10 - 14	50 strips	For checking the pH of samples preserved with acid or base (sensitive to 0.5 pH units)
Safety Supplies		

Item	Quantity	Notes
Splash resistant goggles	2	One per individual (minimum)
Disposable gloves	6 pairs	Nitrile or polyethylene, powder-free
Disposable shoe covers	2 pairs	One pair per individual (minimum)
Disposable laboratory coats	2	One per individual (minimum)
Clear, heavy duty plastic trash bags	4	For disposal of lab coat, gloves, etc.
Rinse water	20 liters	For general use and first aid
Antiseptic wipes	1 container	For cleaning hands, sample containers, etc.
Bleach solution (at least 5%)	1 gallon	For decontamination if necessary
Squirt bottle	2	For use with rinse water or lab grade water
First aid kit	1	For general first aid
Flashlight/headlamp	3	For working at night or in dark locations

APPENDIX A WATER QUALITY SAMPLING GUIDELINES

Sample Containers

Sample Type	Container Size	Container Type	No.	Dechlorinating Agent	Preservative	Analytical Technique	Reference Methods
CHEMISTRY - BASIC SCREEN (Established Techniques)							
Organic Analytes							
Volatiles	40 mL	Glass w / Teflon faced septa	5	Ascorbic acid	1:1 HCl to pH < 2 See method.	P&T – GC/MS	EPA 524.2, 8260B
						P&T – GC/PID/ELCD	EPA 502.2, 8021B
Semi-volatiles	1 L	Amber w / Teflon-lined screw caps	4	Sodium sulfite	6M HCl. See method.	SPE GC/MS	525.2, 8270D/3535
Quarternary nitrogen compounds	1 L	Amber PVC or silanized glass	4	Sodium thiosulfate	Sulfuric acid to pH 2	SPE HPLC - UV	549.2
Carbamate Pesticides	40 mL	Glass w / Teflon faced septa	4	Sodium thiosulfate	Potassium dihydrogen citrate sample pH to ~3.8	HPLC-fluorescence	531.2
Inorganic Analytes							
Metals/Elements	125 mL	Plastic (i.e. HPDE)	2	None	Trace metal grade nitric acid. See method.	ICP-MS	200.8
						ICP-AES	200.7
						AA	200.9
Organometallic compounds	125 mL	Plastic (i.e. HPDE)	2	None	Nitric acid to pH ≤2. See method.	AA – cold vapor manual	245.1
						AA – cold vapor automater	245.2
Cyanide	1 L	Plastic	2	Ascorbic acid	Sodium hydroxide to pH 12. See method.	Titrimetric Spectrophotometric	335.2
						Colorimetric UV	335.3

Sample Type	Container Size	Container Type	No.	Dechlorinating Agent	Preservative	Analytical Technique	Reference Methods
Radiological	2 L	Plastic	2	None	None - mark samples not preserved	Gross alpha, gross beta, gamma isotopes, specific radionuclides	900 Series
CHEMISTRY - EXPANDED SCREEN (Exploratory Techniques)							
Unknown organics (volatile)	40 mL	Glass w / Teflon faced septa	5	None	None - mark samples not preserved	P&T-GC/MS	See Module 4
Unknown organics (general)	1 L	Amber Glass	4	None	None - mark samples not preserved	**Prep**: SPE, SPME, micro LLE, direct aqueous injection, headspace **Analysis**: GC/MS, GC, HPLC, LC-MS	See Module 4
Unknown inorganics	1 L	Plastic	2	None	None - mark samples not preserved	ICP-MS	See Module 4
Immunoassays	1 L	Amber Glass	2	Consult manufacturers instructions	Consult manufacturers instructions	Consult manufacturers instructions	None
PATHOGENS - EXPANDED SCREEN (Established and Exploratory Techniques)							
Pathogens - culture	100 mL	HDPE (plastic)	2	Thiosulfate	TBD	Per target pathogens	See Module 4
Pathogens - PCR	100 mL	HDPE (plastic)	2	Thiosulfate	TBD	Per target pathogens	See Module 4
BASELINE WATER QUALITY PARAMETERS (See Section 3.4)							
Water quality: bacteria	250 mL	Plastic	1	Thiosulfate	None	Fecal coliforms, E-coli,	Standard methods
Water quality: chemistry	1 L	Plastic	1	None	None - mark samples not preserved	Conductivity, pH, alkalinity, hardness, turbidity	Standard methods

Sample Type	Container Size	Container Type	No.	Dechlorinating Agent	Preservative	Analytical Technique	Reference Methods
Surrogates	1 L	Amber glass	2	None	None - mark samples not preserved	Total organic carbon, ultraviolet absorbance, color, chlorine demand	Standard methods
Toxicity	125 mL	Glass	2	Consult manufacturers instructions	Consult manufacturers instructions.	Rapid toxicity assay (several vendors)	None

Sample Collection Guidelines

Safety Guidelines

1. **Do not** enter the site to perform sampling until cleared. Hazardous materials response units may perform safety screening before allowing other responders to enter the site. *Note that field safety screening does **not** generally include testing for pathogens.*
2. **Do not** eat, drink, or smoke at the site.
3. **Do not** taste or smell the water samples.
4. **Do** use general personal protective equipment (PPE) such as splash-proof goggles, disposable gloves, proper footwear (i.e., no open toe or open heel shoes), a chemical resistant, disposable lab coat, and long pants. (*Note that this level of PPE is only intended to minimize incidental contact with the water or chemical reagents used during sample collection or field testing.*)
5. **Avoid** all skin contact with the water, and if incidental contact does occur, immediately flush the affected area with clean water brought to the site for that purpose.
6. Fill sampling containers **slowly** to avoid volatilization or aerosolization of contaminants.
7. **Minimize** the time that personnel are on the site and collecting samples.

Sampling Procedures

1. Pre-label sample containers with a waterproof marker. Information should include: analyte class (pathogen, chemical, or radionuclide), specific analyte (if sample is being collected for a specific target), sample identification number, utility name, location of sample collection, sample collection date and time, and sampler's initials.
2. Check for the presence of any in-line filters (e.g., home treatment devices) that might interfere with sampling. Remove such devices if present.
3. If the sample tap is the suspected point of contaminant introduction, collect swab samples from the tap ***before*** flushing the tap and collecting water samples.
4. Flush sample taps for a time sufficient to displace the water in connecting lines in order to obtain a sample that is representative of the water of interest. Keep the flow rate from the sample tap sufficiently low in order to avoid splashing and aerosolizing water droplets. Divert water to a drain if possible.
5. Carefully collect samples in the specified containers (see Section 3.3). If a reagent needs to be added to the sample, allow enough headspace in the container to add the proper amount of preservative. Cap then gently mix the contents to ensure that the reagent is properly mixed with the sample. Test the sample with a strip of pH paper to ensure preservation to the proper pH. Do not insert the pH paper into the sample container. Pour a small portion of the mixed sample into the container cap then pour from the cap onto the pH paper to verify
6. For chlorinated samples, VOCs should be collected into a secondary 8-oz. glass container (prepared with ascorbic acid - see footnote 1, Table 3.3). Gently mix the sample and transfer to 3, 40-ml VOA containers (triplicate). Fill the 40-ml container above the top to form a meniscus. Close the container with the Teflon side of the septa facing the water sample, gently invert the sample container several times, and verify that there are no air bubbles in the container. Once each container is tagged, the three 40-ml containers should be inserted into a plastic whirlpack bag (provided) and sealed prior to sample storage.
7. Wipe the outside of the sealed containers with paper towel.
8. Attach custody seal to the sample container.
9. Place the sealed container into a rigid cooler and pack with frozen ice packs (preferred) or sealable freezer bags filled with ice.

10. Tag each sample and record all necessary information on “Sample Documentation” and “Chain of Custody” forms.
11. After all samples have been collected, preservative blanks and temperature blanks should be prepared and tagged. A preservative blank should be prepared for each preservative used during the sampling event. The preservative blank can be prepared by adding the appropriate amount of preservative to the preservative blank containers, and tagging the sample for the appropriate analysis (i.e., HNO3 preservative blank should be analyzed for metals). Additionally, a temperature blank container should be placed in each cooler containing samples.

Sample Holding

1. When samples are not in the possession of designated personnel, they should be secured (e.g., locked in a *secure area*) and only accessible by designated personnel. In the field, samples may need to be locked in a vehicle.
2. Samples should be chilled, but protected from freezing.
3. Samples should be held at the drinking water utility lab until shipped to a lab for analysis or until it is determined that they are not needed.
4. Samples that are held longer than the approved holding times for contaminant analysis may no longer be useful.

Sample Transport

1. Sample integrity and chain of custody must be maintained. All factors that might compromise sample integrity (e.g., storage containers, excessive transit time, temperature, pressure, physical disturbance, etc.) should be considered and appropriate measures taken to avoid compromising samples.
2. Sample packaging must be in compliance with shipping regulations.
3. Samples may be screened by law enforcement and/or ICs prior to sample transport to the laboratory.
4. Samples will be transported to the appropriate laboratory in coordination with law enforcement using appropriate air and ground assets.

Field Testing Results Form

Date of Field Testing:		Site Name:			Field Tester:		Phone No.
Parameter	**Units**	**Screen[1]**	**Meter/Kit ID[2]**	**Testing Location[3]**	**Testing Time[4]**	**Results[5]**	**Ref. Value[6]**

1: Screening may be conducted for safety, rapid water testing, or both.
2: Report the unique identifier for the meter or kit used during screening.
3: Report the specific location where the field testing was conducted.
4: Report the specific time at which the test was performed.
5: Results of field testing should include replicate analysis where appropriate.
6. Results should be compared with a reference value, if available, to determine whether or not the levels detected pose a hazard.

Sample Documentation Form

Collection Date:		Site Name:		Sampler:	Phone No.	
Sample ID	**No. Bottles**	**Sampling Time**	**Sampling Location**	**Sample Description**	**Analysis**	**Sample Additives[1]**

1: Report preservatives, dechlorinating agents, acid/base for pH adjustment, and any other sample additives.

Chain of Custody Form

Site Name:		Sampler:	
Sampler Phone No.:		Signature:	
Sample ID	**Collection Date**	**No. Bottles**	**Analysis**

Relinquished by:	Received by:	Date/time:
Relinquished by:	Received by:	Date/time:
Relinquished by:	Received by:	Date/time:
Relinquished by:	Received by:	Date/time:
Relinquished by:	Received by:	Date/time:

Dispatched by:	Date/time:	Received for Laboratory by:	Date/time:

Method of Sample Transport:		
Shipper:	Phone No.:	Tracking No.:

Appendix B Facility Photo Inventory

Site Visit Summary

To:	Crestline Village Water District
From:	Brad Sackett, Albert A. WEBB Associates
Date:	3/10/2022
Subject:	AWIA Compliance – CLAWA Site Visit Summary

A site visit was conducted on March 20, 2022, to each of Crestline Village Water District's sites. The following are notes and photographs from that site visit. A total of 32 sites were visited.

APPENDIX B FACILITY PHOTO INVENTORY

Wilson Tank

- SCADA, pump house, 1 vertical well, 2 horizontal wells and chlorine station

Figure 1 – Tank

Figure 2 – vertical well and chlorine station

Figure 3 – Tank

APPENDIX B FACILITY PHOTO INVENTORY

Figure 4 – horizontal wells

Figure 5 – horizontal well

Pinecrest

Figure 1 - 2 tanks SCADA and Data Collector

Figure 1 - 2 tanks SCADA and Data Collector

APPENDIX B FACILITY PHOTO INVENTORY

Figure 3 - 2 tanks SCADA and Data Collector

Figure 2 - CLAWA intertie 2”

Figure 5 - CLAWA intertie 4”

Figure 6 - 1 vertical well – Phosphate injection

APPENDIX B FACILITY PHOTO INVENTORY

Figure 7 - Pinecrest well – 3 horizontal wells

Chamois

Figure 1 – Chamois Tank Site

Figure 2 - Chamois Tank

APPENDIX B FACILITY PHOTO INVENTORY

Figure 3 – 1 vertical well

Chelan Tank

Figure 1 - CLAVAL PRV station (Hydraulically controlled), SCADA and data collection

Figure 2 - CLAVAL PRV station (Hydraulically controlled), SCADA and data collection

APPENDIX B FACILITY PHOTO INVENTORY

Figure 3 – Chelan Tank

Figure 4 – Chelan Tank

Saxon Tank

Figure 1 - CLAVAL PRV station (Hydraulically controlled), SCADA and data collection

Figure 2 - CLAVAL PRV station (Hydraulically controlled), SCADA and data collection

APPENDIX B FACILITY PHOTO INVENTORY

Figure 3 - CLAVAL PRV station (Hydraulically controlled), SCADA and data collection

Jewel Well

Figure 1 – Jewel Well - 1 horizontal

Electra Well

Figure 1 – Electra Well - Vertical – Uranium Treatment (Ion Exchange Resins) (9994)

APPENDIX B FACILITY PHOTO INVENTORY

Felson Well

Figure 1 – Well site

Figure 2 – vertical well

Horst Well Site

Horst – 3 horizontal Wells Chlorine and Phosphate

Wabern Pump House

Wabern Pump House – Transfer Only

Mile High Interconnect

Figure 1 - CLAWA Intertie 2" & 4"

Figure 2 - CLAWA Intertie 2" & 4"

Hillside Well

Hillside – 1 Horizontal Well

APPENDIX B FACILITY PHOTO INVENTORY

Old Mill Tank

Figure 1 – Old Mill Tank - Just SCADA – some outside coating failures

Figure 2 – Old Mill Tank - Just SCADA – some outside coating failures

Figure 3 – Old Mill Spring – 15 horizontal wells in various locations

Figure 4 – Old Mill Spring – 15 horizontal wells in various locations

APPENDIX B FACILITY PHOTO INVENTORY

Figure 5– Old Mill Spring – 15 horizontal wells in various locations

Zurich I and II

Figure 1 - two tanks, SCADA and data collector

Figure 2 - two tanks, SCADA and data collector

Figure 3 - two tanks, SCADA and data collector

Pioneer Well

Pioneer Well – 4 horizontal wells, chlorine, phosphate

Lakeview Tank

Figure 1 – Lakeview Tank

Figure 2 – Lakeview Tank

Figure 3 – Lakeview Tank

Figure 4 - CLAVAL PRV station (Hydraulically controlled), SCADA and data collection

Figure 5 – Lakeview Tank

APPENDIX B FACILITY PHOTO INVENTORY

Barn Tank

Figure 1 – Barn Tank

Figure 2 – Barn Tank

Figure 3 - CLAVAL PRV station (Hydraulically controlled) with Pump

Beacon I and II Tanks

SCADA, Data Collector, Radio Communication Center, Propane GENSET, fence not completely secure

Figure 1 – Beacon II

Figure 2 – Beacon I

Figure 5 – Adjacent Fencing at Beacon I site

Figure 4 – Beacon SCADA and Com. Center

APPENDIX B FACILITY PHOTO INVENTORY

Figure 5 – Beacon I & II

Figure 6 – Beacon I & II

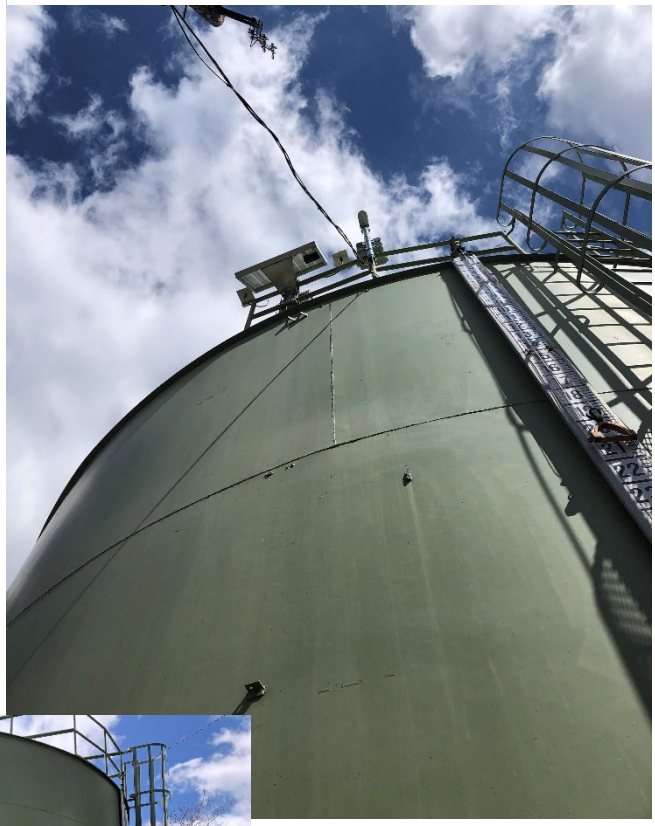


Figure 7 – Beacon I & II

Figure 8 – Beacon I & II

Figure 9 - Beacon I & II

APPENDIX B FACILITY PHOTO INVENTORY

Cypress Well

Cypress Well – 1 vertical with Phosphate

Willow Well

Figure 1 - 4 horizontal wells

Figure 2 - 4 horizontal wells

APPENDIX B FACILITY PHOTO INVENTORY

Brookside

Brookside Wells Figure 1 – 3 horizontal wells

Brookside Wells Figure 2 – 3 horizontal wells

Brookside Tank Figure 1 – SCADA & Data Collection

Brookside Tank Figure 2 – SCADA & Data Collection

APPENDIX B FACILITY PHOTO INVENTORY

Brookside Tank Figure 3 – SCADA & Data Collection, outside coating should be evaluated

Brookside Tank Figure 4 – SCADA & Data Collection

Brookside Tank Figure 5 – SCADA & Data Collection

APPENDIX B FACILITY PHOTO INVENTORY

Camp Seeley Intertie

Figure 1 – CLAWA intertie

Figure 2 – CLAWA intertie

Lake Drive Intertie

Figure 1 – CLAWA intertie

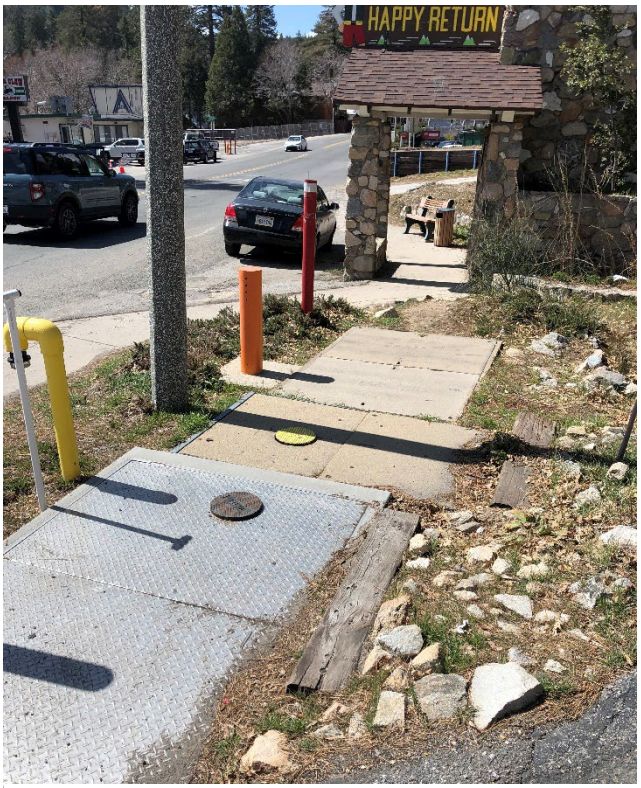


Figure 2 – CLAWA intertie

APPENDIX B FACILITY PHOTO INVENTORY

Crest Forest Intertie

Figure 1 - CLAWA intertie, SCADA flow capability

Figure 2 - CLAWA intertie, SCADA flow capability

Figure 3 - CLAWA intertie, SCADA flow capability

ANDERSON WELL

1 vertical well at HQ

APPENDIX B FACILITY PHOTO INVENTORY

Head Quarters

HQ – Rear of Ops Center Figure1

HQ – Emergency Genset Figure 2

Appendix C Emergency Contact Information

APPENDIX C – CONTACT INFORMATION

Name and Title	Responsibilities during an Emergency	Contact Numbers
General Manager Incident Commander IC and Public Information Office (PIO)	Sets incident objectives and priorities. Responsible for management of incident. Coordinates all emergency response activities between agencies. Communicates with all participants including those outside water utility.	Office: 909-338-1727 ext. 226 Cell: ###-###-#### Home: ###-###-####
Water Utility Emergency Response Manager WUERM	Overall management and decision making for the water system. WUERM is lead for managing the emergency and contacting the regulatory agencies. All communications to external parties are approved by the WUERM.	
Water Utility Emergency Operations Center Manager WUOCM	Heads water utility's EOC. Provides operational and resource management during an emergency. Member of the command staff and reports directly to the IC. Interfaces with media and disseminates public information. Plans the information strategy.	
Jeanene Weiss Office Manager Alternate WUERM Alternate WUOCM	Takes over for primary WUERM if primary WUERM is unavailable. Takes over for primary WUOCM if primary WUOCM is unavailable.	Office: 909-338-1727 ext. 228 Cell: 909-744-0842 Home: 909-336-3925
Security Director SD	Responsible for security of facilities.	
Liaison Officer	Member of the command staff	

APPENDIX C – CONTACT INFORMATION

Name and Title	Responsibilities during an Emergency	Contact Numbers
(LO)	On-scene contact for representatives from other agencies.	
Office Administrator	Responsible for administrative functions in the office. Receives customer phone calls and maintains a log of complaints and calls. In an emergency, could provide a standard carefully pre-scripted message for customers who call with general questions.	
Steve D. Wood Field Supervisor Safety Officer SO	Develops and recommends measures for assuring personnel safety. Assess and anticipates hazardous and unsafe conditions.	Office: 909-338-1727 ext. 231 Cell: 909-709-5659 Home: 909-338-4673
Water Treatment Plant Operation	In charge of running water treatment plant. Performs inspections, maintenance, sampling of the WTP and relaying critical information to the WUERM. Assess WTP facilities and treatment provided and provides recommendations to the WUERM.	
Technical Specialist Water System Operator	In charge of operating the water system. Performs inspections, maintenance, sampling of the system and relaying critical information to the WUERM. Assess facilities and provides recommendations to the WUERM.	

APPENDIX C – CONTACT INFORMATION

Name and Title	Responsibilities during an Emergency	Contact Numbers
David Sale Water Quality Specialist	In charge of collecting samples, having samples analyzed by certified labs, receiving the results. Determines the quality of the water being served meets all drinking water and public health requirements.	
Judith Anderson Customer Service Representative	Assists in office operations.	Office: 909-338-1727 ext. 221 Home: N/A Cell: 909-744-4985
Josselyn Quine Customer Service Representative	Assists in office operations.	Office: 909-338-1727 ext. 222 Home: N/A Cell: 909-534-0968
Dawn Renick Customer Service Representative	Assists in office operations.	Office: 909-338-1727 ext. 223 Home: N/A Cell: 909-219-1921
Mike Lutcavish Serviceman	Assists in field operations.	Home: 909-338-1593 Cell: 909-222-0804
Dave Sale Serviceman	Assists in field operations.	Home: 760-995-3150 Cell: 909-333-8722
James Hinton Serviceman	Assists in field operations.	Home: 909-867-2070 Cell: 909-518-8507
Mike Casas Serviceman	Assists in field operations.	Home: 909-338-6316 Cell: 909-744-2297
Justin Anderson Serviceman	Assists in field operations.	Home: 909-589-0707 Cell: 909-963-9455
Joseph Nicholson Serviceman	Assists in field operations.	Home: Cell: 909-531-3723

APPENDIX C – CONTACT INFORMATION

Local Agencies	Contact Information
San Bernardino County Sheriff	Twin Peaks: 909-336-0600 Emergency: 911
Crest Forest Fire Protection District	Office: 909-338-3311 Emergency: 911
San Bernardino County Health Department	Office: 909-4666 Emergency: 909-356-3805 (Comm Center)
San Bernardino County Fire Department Hazardous Materials Division	909-386-8425
San Bernardino County Office of Emergency Services	909-356-3998
Clinical Laboratory of San Bernardino	909-825-7693
Southern California Edison	Rim Forest: 909-337-1050 Emergency: 800-611-1911
Southern California Gas Company	Rim Forest: 909-336-4694 Emergency: 800-427-2200
Verizon Telephone	Rim Forest: 909-337-2941 Emergency: 909-881-7867
County Supervisor - 2nd District	Paul Biane: 909-387-4833
Underground Service Alert	800-227-2600

State Agencies	Contact Information
California Department of Health Services, District Engineer	Amanda Chapman, Water Resource Control Engineer Day: 909-383-4329 Night: 951-202-0717 Jarrett Hamud, Water Resource Engineer Day: 909-383-4329 Night: 562-713-2348 General Day: 800-442-2283 Night: 909-677-7168
Office of Emergency Services 24/7	If unable to contact local State of County Health Department personnel: 916-845-8911 (Ask for CDHS Duty Officer.)
California Highway Patrol	Arrowhead Office: 909-867-2791 Division Headquarters: 909-383-4811
Lahontan Regional Water Quality Control Board	Victorville: 760-241-6583

APPENDIX C – CONTACT INFORMATION

State Agencies	Contact Information
	So. Lake Tahoe: 530-542-5400

Federal Agencies	Contact Information
FBI	Los Angeles Field Office: 310-477-6565
Department of Homeland Security (DHS)	202-282-8000
EPA	Southern California Field Office: 213-244-1800 Region 9 - San Francisco: 800-300-2193 (24 hour Environmental Emergencies)
Health and Human Services (HHS)	202-619-0257
ATF	Resident Agent in Charge: 909-276-6031 San Francisco Field Division: 415-744-7001

Vendors / Contractors	Contact Information
Internet Service Provider	Ultimate Internet Access: 800-982-6898 or 909-605-2000
Fuel Supplier (backup generator)	Southern California Gas Company: 909-336-4694
Pipeline Materials Supplier	Inland Water Works Supply: 909-883-8941
Communications Equipment	Vision Communication: 800-778-2275

Customer Name	Critical Care Customers	Large Water Users	Primary Contact Information	Secondary Contact Information
Rim of the World School District	No	Yes	909-336-4100	Mountain High School 909-336-0381 Lake Gregory Elementary 909-336-3474 Valley of Enchantment Elementary 909-336-0375

Firefighting Water Source	Contact Information	Quantity Available
Crestline-Lake Arrowhead Water Agency	Office: 909-338-1779 Harold Marshall: 909-844-2862 (C)	Regional Wholesale Supplier

APPENDIX C – CONTACT INFORMATION

Customer Name	Critical Care Customers	Large Water Users	Primary Contact Information	Secondary Contact Information
Valley of Enchantment Mutual Water Company	Office: 909-338-2310 Emergency: 909-432-2125			
Lake Gregory	Draft from Lake			

Supplier	Contact Information
Crestline-Lake Arrowhead Water Agency	Office: 909-338-1779
Valley of Enchantment Mutual Water Company	Office: 909-338-2310

Media Type	Contact Information
Crestline Courier News	909-338-1893
Mountain News	909-336-3555
Alpenhorn News	909-337-1848
Internet Web Page	www.cvwater.com
Local Radio Station KFRG 95.1 FM	909-825-9525
Channel 6,10 - Charter Communications Cable TV	866-499-8080

Appendix D Public Notices and Press Releases

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Este aviso contiene información muy importante sobre su agua potable. Para una copia en español, favor de llamar al sistema de agua 909-338-1727.

Crestline Village Water District [Month/Day/Year]

BOIL WATER NOTICE

Boil Your Water Before Drinking or Food Preparation to Avoid Illness

Due to the recent [event (e.g., water outage, power outage, flood, fire, earthquake or other emergency)], which occurred on [date], the State Water Resources Control Board, Division of Drinking Water, the San Bernardino County Health Department, and the Crestline Village Water District are advising residents of Crestline to only use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution to avoid stomach or intestinal illness. The affected area includes: [INSERT GEOGRAPHICAL DESCRIPTION, STREET BOUNDARIES, ETC.]

We will inform you when tests show that water is safe to drink, and you no longer need to boil your water. We anticipate resolving the problem within [estimated time frame].

If you have questions about other uses of tap water, such as bathing and dish washing, please call your water system or read this guidance: https://www.cdc.gov/healthywater/emergency/dwa-comm-toolbox/before/tools/What-to-Do-During-a-Boil-Water-Advisory.docx

Optional: Potable water is available at the following locations: [List locations]

Please bring a clean water container (5 gallons maximum capacity).

Do not drink the water without boiling it first

- Boil all water for one (1) minute (rolling boil).
- Let water cool before drinking.
- Use boiled or bottled water for drinking, brushing teeth, and food preparation until further notice.
- Boiling water kills bacteria and other organisms in the water.

If you are unable to boil your water:

Household unscented liquid bleach

- For clear water, use 8 drops (1/8 tsp.) of bleach for 1 gallon of water. For cloudy water, filter through a clean cloth and use 16 drops (1/4 tsp.) of bleach for 1 gallon of water.
- Mix well. Allow to stand for 30 minutes before using.
- Water may taste or smell like chlorine. This means disinfection has occurred.

Water disinfection tablets

- Please follow the manufacturer's instructions.

For More Information

If you are concerned about your health or the health of a family member, contact your health care provider or County Health Department at 909-356-3805 (Comm Center).

Water Utility contact: Crestline Village Water District
Ph: 909-338-1727
777 Cottonwood Dr, Crestline, CA 92325
http://www.cvwater.com/

State Water Resources Control Board District Office: 909-383-4328

Local Environmental Health Jurisdiction: San Bernardino County at 800-442-2283.

Please share or post this information with others who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and

businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

INFORMACION IMPORTANTE SOBRE SU AGUA POTABLE

Este aviso contiene información muy importante sobre su agua potable, por favor léalo bien.

Crestline Village Water District [XX/XX/XXXX]

AVISO DE HERVIR EL AGUA

Para Evitar Enfermarse, Hierva Su Agua Antes de Beberla o Preparar Comida

Debido al reciente [evento (ejemplo: corte de agua, corte de luz, inundación, incendio, temblor u otra situación de emergencia)], el cual ocurrió en [date], la Junta Estatal de Control de Recursos de Agua (División de Agua Potable), el San Bernardino County Health Department, y el Sistema de Agua Crestline Village Water District están advirtiéndoles a los residentes de Crestline que como precaución de seguridad, solo usen agua de la llave hervida o agua embotellada para beber y para cocinar. Esto es para evitar enfermedad intestinal o del estómago. El área afecta- da incluye: [INSERT GEOGRAPHHICAL DESCRIPTION, STREET BOUNDARIES, ETC.]

Le informaremos cuando las pruebas muestren que el agua es segura para beber y usted ya no tenga que hervir su agua. Esperamos resolver el problema dentro de [estimated time frame].

Si tiene preguntas sobre el agua de la llave para otros usos, como para bañarse, y lavar los trastes, favor de llamar a su sistema de agua o lea esta guía: https://www.cdc.gov/healthywater/emergency/dwa-comm-toolbox/before/tools/What-to-Do-During-a-Boil-Water-Advisory.docx

Opcional: En los siguientes lugares hay Agua Potable disponible: [List locations]. Favor de llevar un contenedor limpio para el agua (de 5 galones máximos de capacidad).

No beba el agua sin antes hervirla

- Hierva toda el agua por un (1) minuto (a punto de ebullición).
- Deje enfriar el agua antes de beberla.
- Hasta nuevo aviso, use agua hervida o embotellada para beber, lavarse los dientes, y para preparar comida.
- Hervir el agua mata las bacterias y otros organismos en el agua.

Si no puede hervir su agua

Puede usar blanqueador sin olor de uso doméstico (household bleach)

- Para agua clara, agregue 8 gotas (1/8 de cucharadita) de blanqueador para 1 galón de agua. Para agua turbia, use una prenda de ropa limpia para filtrarla, y agregue 16 gotas (1/4 de cucharadita) de blanqueador para 1 galón de agua turbia.
- Mezcle bien. Deje reposar el agua por 30 minutos antes de usarla.
- Puede ser que el agua sepa o huela a blanqueador. Esto significa que el agua ha sido desinfectada.

Tabletas desinfectantes de agua

- Siga las instrucciones del fabricante.

Para más información

Si está preocupado por su salud o la salud de un miembro de la familia, contacte a su proveedor de salud o a County Health Department at 909-356-3805 (Comm Center).

Representante del Proveedor de Servicio de Agua: Crestline Village Water District
Ph: 909-338-1727
777 Cottonwood Dr, Crestline, CA 92325

Oficina de Distrito de la Junta Estatal de Agua: 909-383-4328
Jurisdicción de Salud Ambiental Local: San Bernardino County at 800-442-2283.

Por favor publique o comparta esta información con otras personas que beben esta agua, especialmente aquellos que no hayan recibido este aviso directamente (por ejemplo, las personas en

apartamentos, asilos, escuelas, y negocios). Puede hacerlo poniendo este aviso en un lugar público o distribuyendo copias en persona o por correo.

CANCELLATION OF BOIL WATER NOTICE

Crestline Village Water District

[DATE]

On [Date of boil water notice] you were notified of the need to boil/disinfect all tap water used for drinking and cooking purposes.

The Crestline Village Water District Water System in conjunction with the State Water Resources Control Board [, and/or Name of Local Primacy Agency (if applicable)], has determined that, through abatement of the health hazard and comprehensive testing of the water, your water is safe to drink. **It is no longer necessary to boil your tap water or for you to consume bottled water.**

For more information call:

Water Utility contact: Crestline Village Water District
Ph: 909-338-1727
777 Cottonwood Dr, Crestline, CA 92325
http://www.cvwater.com/

State Water Resources Control Board District Office: 909-383-4328

Local Environmental Health Jurisdiction: San Bernardino County at 800-442-2283.

CANCELACIÓN DEL AVISO DE HERVIR EL AGUA

Crestline Village Water District

[Fecha]

El [Fecha] le notificaron que tenía que hervir o desinfectar toda el agua de la llave que utilizara para beber y cocinar.

El Sistema de Agua de Crestline Village Water District junto con la Junta Estatal de Control de Recursos de Agua, o la Jurisdicción Local de Salud Ambiental han determinado tras la supresión del riesgo de salud, seguido por un análisis completo del agua, que puede beber el agua de su llave sin peligro. **Ya no es necesario que hierva el agua de su llave ni que consuma agua de botella.**

Para más información llame a:

Contacto en el Servicio de Agua: Crestline Village Water District
Ph: 909-338-1727
777 Cottonwood Dr, Crestline, CA 92325
http://www.cvwater.com/

Junta Estatal de Control de Recursos de Agua: 909-383-4328

Jurisdicción Local de Salud Ambiental: San Bernardino County at 800-442-2283.

Hoja informativa acerca de lo que hacerse durante una advertencia de uso de agua hervida

Durante una advertencia de uso de agua hervida, la mejor opción es usar agua embotellada hasta que las autoridades indiquen otra cosa. Si no tiene agua embotellada disponible, la segunda mejor opción es hervir el agua del grifo para que sea segura para beber. Si no es posible hervir el agua del grifo, puede desinfectarla para que sea segura para beber.

Cómo hervir el agua

Para hervir el agua

- Llene una olla con agua.
- Caliente el agua hasta que haya burbujas que suban rápidamente desde el fondo de la olla hasta la superficie.
- Continúe calentando el agua por un minuto más.
- Apague la fuente de calor y deje que se enfríe el agua.
- Vierta el agua en un envase limpio y tápelo para su almacenamiento.

Cómo desinfectar el agua

Si no puede hervir el agua, puede desinfectarla para que sea segura para beber.

Necesitará tener un recipiente limpio y desinfectado donde guardar el agua que desinfecte. Recomendamos lave y desinfecte su recipiente antes de desinfectar el agua, mediante los siguientes pasos:

1. Lave el recipiente con agua y jabón de lavar platos y enjuáguelo por completo.
2. Desinfecte el recipiente con una solución que se obtiene al disolver 1 cucharadita de cloro de uso doméstico no perfumado (cloro sin perfume agregado) en un cuarto de galón de agua (32 onzas, 4 tazas o aproximadamente 1 litro).
3. Cubra el recipiente y agítelo bien para que la solución desinfectante con cloro toque todas las superficies de dentro.
4. Espere al menos 30 segundos y vierta la solución desinfectante fuera del recipiente.
5. Deje que el recipiente vacío y desinfectado se seque al aire antes de usarlo O enjuáguelo con agua limpia y segura que tenga disponible de antemano.

Nota: Cuando prepare el agua segura, es mejor usar recipientes de agua de uso alimentario, como los que pueden encontrarse en las tiendas de artículos para camping o de excedentes militares. Si no puede usar un recipiente de

agua de uso alimentario, asegúrese de que el recipiente que elija:

- Tenga una tapa que pueda cerrarse completamente.
- Esté hecho de materiales durables que no se puedan romper (es decir, no de vidrio).

NO USE recipientes que se hayan usado previamente para almacenar sustancias químicas tóxicas líquidas o sólidas (cloro, pesticidas, etc.).

Cómo desinfectar el agua del grifo
Si el agua del grifo es clara:

- Use cloro no perfumado (cloro sin perfume agregado). La etiqueta debe decir que contiene 8.25% de hipoclorito de sodio.
- Agregue 6 gotas (medidas con un gotero de medicamentos) o 0.5 mililitros de cloro en 1 galón (16 tazas) de agua.
- Mezcle bien y espere 30 minutos o más antes de beber.
- Guarde el agua desinfectada en un recipiente limpio, desinfectado y con tapa.

Si el agua del grifo está turbia:

- Filtre el agua con un paño limpio.
- Use cloro no perfumado (cloro sin perfume agregado). La etiqueta debe decir que contiene 8.25% de hipoclorito de sodio.
- Agregue 12 gotas, 1 mililitro o 1/8 de cucharadita de cloro en 1 galón (16 tazas) de agua.
- Mezcle bien y espere 30 minutos o más antes de beber.
- Guarde el agua desinfectada en un recipiente limpio, desinfectado y con tapa.

Filtros de agua

Debe hervir el agua del grifo aunque esté filtrada. La mayoría de los filtros de agua de cocina o de los otros filtros de uso doméstico **no eliminan** las bacterias ni los virus.

Los filtros recolectan los microbios del agua, por lo tanto, todos los filtros de agua deben ser reemplazados después de que la advertencia haya terminado. Las personas que cambien los cartuchos deben usar guantes y lavarse las manos después. Deje correr agua por el filtro durante [X] minutos y luego reemplace la parte removible del filtro según corresponda.

Cómo preparar y cocinar alimentos

Use agua embotellada o agua hervida (que se haya enfriado) para lo siguiente:

- Lavar todas las frutas y verduras.

- Cocinar los alimentos.
- Preparar bebidas, como café, té y limonada.
- Lavar las superficies donde se preparan los alimentos.

Alimentación de bebés y uso de fórmula

La alimentación con leche materna es lo mejor. Continúe amamantando. Si amamantar no es una opción:

- Use fórmula para bebés lista para usar, si es posible.
- Use agua embotellada para preparar la fórmula para bebés en polvo o concentrada. Use agua hervida si no tiene agua embotellada disponible.
- Antes de usar los biberones y las tetinas lávelos y esterilícelos con agua embotellada o hervida (que se haya enfriado).
- Si no puede esterilizar los biberones, trate de usar biberones de un solo uso o listos para usar.

Hielo

- No use el hielo de las hieleras, los dispensadores de hielo ni las máquinas de hielo.
- Bote todo el hielo hecho con agua del grifo.
- Haga hielo nuevo con agua embotellada o hervida.

Lavado de manos

En muchas situaciones, puede usar el agua del grifo con jabón para lavarse las manos. Siga las pautas de las autoridades de salud pública locales o del personal de manejo de emergencias. Asegúrese de restregarse las manos con agua y jabón (fría o tibia) durante 20 segundos y de enjuagárselas bien bajo agua corriente. Es importante secarse las manos por completo con una toalla o al aire.

Baños y duchas

Tenga cuidado de no tragar agua cuando se bañe o se duche.
Sea precavido cuando bañe a bebés y niños pequeños. Considere darles baños de esponja para reducir la probabilidad de que traen agua.

Cepillarse los dientes

Cepíllese los dientes con agua embotellada o agua hervida (que se haya enfriado).

Lavado de platos

Use platos, tazas, vasos y utensilios desechables, si es posible. Si no tiene platos desechables, siga las instrucciones a continuación. En general es seguro usar los lavaplatos de uso doméstico si el agua alcanza una temperatura final de enjuague de al menos 150 grados o si el lavaplatos tiene un ciclo de desinfección.

Para lavar los platos a mano:

- Lave y enjuague los platos como lo haría normalmente usando agua caliente.
- En un recipiente por separado, disuelva una cucharadita de cloro líquido de uso doméstico no perfumado por cada galón de agua tibia.
- Deje remojaren el agua los platos ya enjuagados por al menos un minuto.
- Deje que los platos se sequen por completo al aire antes de volverlos a usar.

Lavado de ropa

Es seguro lavar la ropa normalmente.

Mascotas

Las mascotas pueden enfermarse por los mismos microbios que las personas. Es una buena idea darles para beber agua embotellada o agua hervida (que se haya enfriado).

Para obtener más información

- **Cómo crear y almacenar una reserva de agua de emergencia** (http://www.cdc.gov/healthywater/emergency/drinking/creating-storing-emergency-water-supply.html): Los CDC proveen pautas sobre la cantidad de agua necesaria para la buena salud, así como también sobre la manera de preparar y almacenar agua que sea segura, antes y durante una emergencia.
- **Higiene, lavado de manos y cambio de pañales** (http://www.cdc.gov/healthywater/emergency/hygiene/index.html): Los CDC proveen pautas sobre las prácticas de higiene recomendadas cuando no haya agua disponible o cuando el agua esté contaminada.
- **Guía sobre los filtros de agua** (http://www.cdc.gov/parasites/crypto/gen_info/filters.html): Los CDC mantienen una guía para elegir filtros que eliminan agentes patógenos, sustancias químicas o toxinas.
- **Línea directa de la EPA de información sobre agua potable segura**: 1-800-426-4791.
- **Información para el consumidor**

(http://water.epa.gov/lawsregs/rulesregs/sdwa/ccr/index.cfm): La Agencia de Protección Ambiental (EPA) proporciona información y pautas sobre la calidad del agua potable, emergencias, agentes contaminantes, problemas de salud pública, y tratamiento y almacenamiento.

- Sistema de agua: Crestline Village Water District
  Ph: 909-338-1727
  777 Cottonwood Dr, Crestline, CA 92325
  http://www.cvwater.com/
- Departamento de salud estatal o local: San Bernardino County at 800-442-2283.
- Agencia principal: 909-383-4328

Fact Sheet About What to Do During a Boil Water Advisory

Boiling water

To boil water

- Fill a pot with water.
- Heat the water until bubbles come from the bottom of the pot to the top.
- Once the water reaches a rolling boil, let it boil for 1 minute.
- Turn off the heat source and let the water cool.
- Pour the water into a clean container with a cover for storage.

Disinfecting water

If you are unable to boil your water, disinfect it instead.

If tap water is clear:

- Use unscented bleach (bleach that does not have an added scent).
- Add 1/8 teaspoon (8 drops or about 0.75 milliliters) of unscented household liquid bleach to 1 gallon (16 cups) of water.
- Mix well and wait 30 minutes or more before drinking.
- Store disinfected water in clean container with a cover.

If tap water is cloudy:

- Filter water using clean cloth.
- Use unscented bleach (bleach that does not have an added scent).
- Add 1/4 teaspoon (16 drops or 1.5 milliliters) of unscented household liquid bleach to 1 gallon (16 cups) of water.
- Mix well and wait 30 minutes or more before drinking.
- Store disinfected water in clean container with a cover.

Remember that containers may need to be sanitized before using them to store safe water.

To sanitize containers:

- Use unscented bleach (bleach that does not have an added scent).
- Make a sanitizing solution by mixing 1 teaspoon (5 milliliters) of unscented household liquid bleach in 1 quart (32 ounces, 4 cups, or about 1 liter) of water.
- Pour this sanitizing solution into a clean storage container and shake well, making sure that the solution coats the entire inside of the container.

- Let the clean storage container sit at least 30 seconds, and then pour the solution out of the container.
- Let empty container air dry OR rinse it with clean water that has already been made safe, if available. Never mix bleach with ammonia or other cleaners. Open windows and doors to get fresh air when you use bleach.

Water filters

Boil tap water even if it is filtered. Most kitchen and other household water filters typically ***do not*** remove bacteria or viruses.

Preparing and cooking food

- Wash all fruits and vegetables with boiled water that has cooled or bottled water.
- Bring water to a rolling boil for 1 minute before adding food to cook.
- Use boiled water when preparing drinks, such as coffee, tea, and lemonade
- Wash food preparation surfaces with boiled water.

Feeding babies and using formula

- Breastfeeding is best. Continue to breastfeed. If breastfeeding is not an option:
- Use ready-to-use baby formula, if possible.
- Prepare powdered or concentrated baby formula with bottled water. Use boiled water if you do not have bottled water. Disinfect water for baby formula if you cannot boil your water (see above for directions on how to use bleach to disinfect water).
- Wash and sterilize bottles and nipples before use.
- If you cannot sterilize bottles, try to use single-serve, ready-to-feed bottles.

Ice

- Do not use ice from ice trays, ice dispensers, or ice makers.
- Throw out all ice made with tap water.
- Make new ice with boiled or bottled water.

Bathing and showering

Be careful not to swallow any water when bathing or showering.
Use caution when bathing babies and young children. Consider giving them a sponge bath to reduce the chance of them swallowing water.

Brushing teeth

Brush teeth with boiled or bottled water. Do not use untreated tap water.

Washing dishes

Household dishwashers generally are safe to use if the water reaches a final rinse temperature of at least 150 degrees or if the dishwasher has a sanitizing cycle.

To wash dishes by hand:

- Wash and rinse the dishes as you normally would using hot water.
- In a separate basin, add 1 teaspoon of unscented household liquid bleach for each gallon of warm water.
- Soak the rinsed dishes in the water for at least one minute.
- Let the dishes air dry completely.

Laundry

It is safe to do laundry as usual.

Pets

Pets can get some of the same diseases as people. It is a good idea to give them boiled water that has been cooled.

For more information, see or contact:

- **Personal Preparation and Storage of Safe Water** (http://www.cdc.gov/healthywater/emergency/safe_water/personal.html) CDC provides guidance on the amount of water needed for good health, as well how to prepare and store safe water before and during an emergency.
- **Hygiene and Handwashing** (http://www.cdc.gov/healthywater/emergency/hygiene/index.html): CDC provides guidance on alternative hygienic practices when water is not available or is contaminated.
- **A Guide to Water Filters** (http://www.cdc.gov/parasites/crypto/gen_info/filters.html): CDC maintains a guide for filters that remove *Cryptosporidium* or *Giardia*.
- **EPA Safe Drinking Water Hotline**: 1-800-426-4791
- **Consumer Information** (http://water.epa.gov/drink/info/index.cfm): EPA provides information and guidance about drinking water quality, emergencies, contaminants, public health issues, and treatment and storage.
- **Water Utility contact:** Crestline Village Water District

Ph: 909-338-1727
777 Cottonwood Dr, Crestline, CA 92325
http://www.cvwater.com/

- **State Water Resources Control Board District Office:** 909-383-4328
- **Local Environmental Health Jurisdiction:** San Bernardino County at 800-442-2283.

Date:

UNSAFE WATER ALERT

[Insert one-liner language other than Spanish here, if needed, otherwise delete.]

Crestline Village Water District water is possibly contaminated with [an unknown substance]

DO NOT DRINK YOUR WATER

Failure to follow this advisory could result in illness.

An unknown substance has been added to the drinking water supplied by the Crestline Village Water District due to a recent [intrusion; break-in] at [one of the wells; our treatment plant; storage tank; specific facility]. The State Water Resources Control Board, San Bernardino County Health Department, and Crestline Village Water District Water System are advising residents of Crestline to NOT USE THE TAP WATER FOR DRINKING AND COOKING UNTIL FURTHER NOTICE.

What should I do?

- **DO NOT DRINK YOUR TAP WATER---USE ONLY BOTTLED WATER.** Bottled water should be used for all drinking (including baby formula and juice), brushing teeth, washing dishes, making ice and food preparation **until further notice**.

- **DO NOT TRY AND TREAT THE WATER YOURSELF.** Boiling, freezing, filtering, adding chlorine or other disinfectants, or letting water stand will not make the water safe.

- Optional: Potable water is available at the following locations: [List locations]
  Please bring a clean water container (5 gallons maximum capacity).

We will inform you when tests show that the water is safe again. We expect to resolve the problem within [estimated time frame].

For more information call:
Water Utility contact: Crestline Village Water District
Ph: 909-338-1727
777 Cottonwood Dr, Crestline, CA 92325
http://www.cvwater.com/

State Water Resources Control Board District Office: 909-383-4328

Local County Health Department: San Bernardino County 909-356-3805

This notice is being sent to you by Crestline Village Water District. California Public Water System ID # [XXXXXXX]. Date Distributed: [date].

Please share this information with all other people who receive this water,

Last updated – 12/08/14

especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand.

Date:

ALERTA DE AGUA NO SEGURA

[Insert one-liner language other than Spanish here, if needed, otherwise delete.]

El agua de Crestline Village Water District posiblemente está contaminada con [an unknown substance]

NO BEBA SU AGUA

Si descarta ésta advertencia puede enfermarse

Una sustancia desconocida fue agregada al agua potable suministrada por Crestline Village Water District, esto fue debido a una reciente [intrusion; break-in] en [uno de los pozos; nuestra planta de tratamiento; tanque de almacenamiento; instalaciones específicas]. La Junta Estatal de Control de Recursos de Agua, el San Bernardino County Health Department, y el Sistema de Agua Crestline Village Water District están advirtiéndoles a los residentes de Crestline Village Water District que NO USEN EL AGUA DE LA LLAVE PARA BEBER Y COCINAR HASTA NUEVO AVISO.

¿Qué debo hacer?

- **NO BEBA AGUA DE LA LLAVE---SOLO USE AGUA EMBOTELLADA.** Se debería usar agua embotellada para todas las bebidas (incluyendo formula de bebés y jugo), para lavarse los dientes, lavar trastes, hacer hielo y preparar comida **hasta nuevo aviso**.

- **NO INTENTE TRATAR EL AGUA USTED MISMO.** Hervir, congelar, filtrar, agregar cloro (chlorine) u otros desinfectantes, o dejar que el agua repose, no hará que el agua sea segura.

- Optional: Hay agua potable disponible en los siguientes lugares: [List locations]
  Por favor traiga un contenedor limpio para el agua (de 5 galones máximos de capacidad).

Le informaremos cuando las pruebas muestren que el agua es segura otra vez. Esperamos resolver el problema dentro de [estimated time frame].

Para más información llame a:
Contacto del Servicio de Agua: Crestline Village Water District
Ph: 909-338-1727
777 Cottonwood Dr, Crestline, CA 92325

Junta Estatal de Control de Recursos de Agua (State Water Resources Control Board): 909-383-4328.

Departmento Local de Salud del Condado: San Bernardino County 909-356-3805.

Este aviso es enviado a usted por Crestline Village Water District. Núm. de Identificación de California del Sistema de Agua Público [XXXXXXX]. Fecha de distribución: [date].

Por favor comparta esta información con todas las demás personas que reciben esta

Last updated – 12/08/14

agua, especialmente aquellos que no hayan recibido éste aviso directamente (por ejemplo, las personas en apartamentos, asilos, escuelas, y negocios). Puede hacerlo poniendo este aviso en un lugar público o distribuyendo copias en persona.

UNSAFE WATER ALERT

[Insert one-liner language other than Spanish here, otherwise delete.]

[System Name] water is possibly contaminated with [an unknown substance]

DO NOT USE YOUR WATER

Failure to follow this advisory could result in illness.

An unknown substance has been added to the drinking water supplied by the [Water System Name] due to a recent [intrusion; break-in] at [one of the wells; our treatment plant; storage tank; specific facility]. The State Water Resources Control Board, [County Name] County Health Department, and [Water System name] Water System are advising residents of [City, Town, System] to NOT USE THE TAP WATER FOR DRINKING, COOKING, HAND WASHING, OR BATHING UNTIL FURTHER NOTICE.

What should I do?

- **DO NOT USE YOUR TAP WATER---USE ONLY BOTTLED WATER.** Bottled water should be used for all drinking (including baby formula and juice), brushing teeth, washing dishes, making ice, food preparation and bathing **until further notice**.

- **DO NOT TRY AND TREAT THE WATER YOURSELF.** Boiling, freezing, filtering, adding chlorine or other disinfectants, or letting water stand will not make the water safe.

- Optional: Potable water is available at the following locations: [List locations]
  Please bring a clean water container (5 gallons maximum capacity).

We will inform you when tests show that the water is safe again. We expect to resolve the problem within [estimated time frame].

For more information call:
Water Utility contact: Crestline Village Water District
Ph: 909-338-1727
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State Water Resources Control Board at: 909-383-4328

Local County Health Department: San Bernardino County at 800-442-2283.

This notice is being sent to you by [insert water system name]. California Public Water System ID # [XXXXXXX]. Date Distributed: [date].

Please share this information with all other people who receive this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand.

Date:

ALERTA DE AGUA NO SEGURA

[Insert one-liner language other than Spanish here, if needed, otherwise delete.]

El agua de Crestline Village Water District posiblemente está contaminada con [an unknown substance]

NO USE SU AGUA

Si descarta ésta advertencia puede enfermarse

Una sustancia desconocida fue agregada al agua potable suministrada por Crestline Village Water District, esto fue debido a una reciente [intrusion; break-in] en [uno de los pozos; nuestra planta de tratamiento; tanque de almacenamiento; instalaciones específicas]. La Junta Estatal de Control de Recursos de Agua, el San Bernardino County Health Department, y el Sistema de Agua Crestline Village Water District están advirtiéndoles a los residentes de Crestline que NO USEN EL AGUA DE LA LLAVE PARA BEBER, COCINAR, LAVARSE LAS MANOS, O BAÑARSE HASTA NUEVO AVISO.

¿Qué debo hacer?

- **NO USE AGUA DE LA LLAVE---SOLO USE AGUA EMBOTELLADA.** Se debería usar agua embotellada para todas las bebidas (incluyendo formula de bebés y jugo), para lavarse los dientes, lavar trastes, hacer hielo, preparar comida, y bañarse **hasta nuevo aviso**.

- **NO INTENTE TRATAR EL AGUA USTED MISMO.** Hervir, congelar, filtrar, agregar cloro (chlorine) u otros desinfectantes, o dejar que el agua repose, no hará que el agua sea segura.

- Optional: Hay agua potable disponible en los siguientes lugares: [List locations]
  Por favor traiga un contenedor limpio para el agua (de 5 galones máximos de capacidad).

Le informaremos cuando las pruebas muestren que el agua es segura otra vez. Esperamos resolver el problema dentro de [estimated time frame].

Para más información llame a:
Contacto del Servicio de Agua: Crestline Village Water District
Ph: 909-338-1727
777 Cottonwood Dr, Crestline, CA 92325

Junta Estatal de Control de Recursos de Agua (State Water Resources Control Board): 909-383-4328.

Departmento Local de Salud del Condado: San Bernardino County 909-356-3805

Este aviso es enviado a usted por Crestline Village Water District. Núm. de Identificación de California del Sistema de Agua Público [XXXXXXX]. Fecha de distribución: [date].

Por favor comparta esta información con todas las demás personas que reciben esta

agua, especialmente aquellos que no hayan recibido éste aviso directamente (por ejemplo, las personas en apartamentos, asilos, escuelas, y negocios). Puede hacerlo poniendo este aviso en un lugar público o distribuyendo copias en persona.

PUBLIC NOTICE

CONSUMER ALERT DURING WATER OUTAGES OR PERIODS OF LOW PRESSURE

1. If you are experiencing water outages or low water pressure, immediately discontinue any non-essential water usage. This includes all outdoor irrigation and car washing. Minimizing usage will reduce the potential for the water system to lose pressure or completely run out of water. Please notify your water system of the outage or low pressure.

2. If the water looks cloudy or dirty, you should not drink it. Upon return of normal water service, you should flush the hot and cold water lines until the water appears clear and the water quality returns to normal.

3. If you are concerned about the water quality or are uncertain of its safety, you may add eight drops of household bleach to one gallon of water and let it sit for 30 minutes or alternatively, if you are able, water can be boiled for one minute at a rolling boil to ensure its safety.

4. Use of home treatment devices does not guarantee the water supply is safe after low pressure situations.

5. Do not be alarmed if you experience higher than normal chlorine concentrations in your water supply since the State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) is advising public water utilities to increase chlorine residuals in areas subject to low pressure or outages.

6. The SWRCB DDW has also advised public water systems to increase the bacteriological water quality monitoring of the distribution system in areas subject to low pressure. They may be collecting samples in your area to confirm that the water remains safe. You will be advised if the sampling reveals a water quality problem.

7. Your water system is committed to make certain that an adequate quantity of clean, wholesome, and potable water is delivered to you. We recommend that you discuss the information in this notice with members of your family to ensure that all family members are prepared should water outages or low water pressure occur.

Appendix E Action Plans

AP 1A - Threat of or Actual Contamination to Water System

POSSIBLE STAGE

AP Summary:	This Action Plan applies to the intentional introduction of a contaminant into the water system. The contaminant could be introduced at any point within the system, including raw water, treatment facilities, distribution system including distribution pipes, finished water storage, or pump stations. The adversary may or may not give notice of the contaminant or provide the location. Contamination may have actually occurred, or it may be a hoax.	
Initiation and Notification:	1. Initiate this AP if any of the following has occurred: Security Breach (including, for example): • Unsecured Doors • Open Hatches • Unlocked/Forced Gates • Alarm Triggered Witness Account (including, for example): • Suspicious Activity • Trespassing • Breaking and Entering • Tampering with Equipment or Property Direct Notification by Perpetrator (including, for example): • Verbal Threat • Threat in Writing Notification by Law Enforcement (including, for example): • Suspicious Activity • Threat made to Water System Notification by News Media (including, for example): • Threat Delivered to News Media • Media Discovers Threat Unusual Water Quality Parameters (including, for example): • Changes in pH, chlorine residual or turbidity • Unexpected monitoring or sampling results	*Use this AP if you receive any incident warning (see types of warnings to left) indicating possible contamination of your water system* *If you have evidence that corroborates the warning, or if collective information indicates that contamination is likely,* ***GO TO AP 1B – CREDIBLE STAGE****.* *If there is confirmed evidence and/or definitive information that the water system has been contaminated.* ***GO TO AP 1C – CONFIRMED STAGE.***

AP 1A - Threat of or Actual Contamination to Water System POSSIBLE STAGE		
	• Strange odor, color, or appearance Customer Complaints (including, for example unexplained or unusually high complaints of): • Odor • Color or Appearance • Taste Public Health Notification (including, for example): • Victims in Emergency Rooms and/or Clinics • High Incidence of Similar Health Complaints in one Local Area	
Initiation and Notification:	2. Notify WUERM or Alternate WUERM immediately upon discovery of any of the above Threat Warnings.	*The individual who first notices or receives the threat warning should contact the WUERM immediately by whatever means of communication may be available.*
Equipment Identified:	**Equipment** **Water quality testing at Clinical Laboratories of San Bernardino, CA** **Location** **21881 Barton Rd, Grand Terrace, CA 92313**	*This equipment is available to assist in the execution of this AP.*
Specific Activities:		

AP 1A - Threat of or Actual Contamination to Water System

POSSIBLE STAGE

I. Assess the Problem	A. Complete the following **Threat Warning Report Forms** according to the type of Threat Warning received. (Appendix F of ERP). • **Security Incident Report Form** • **Witness Account Report Form** • **Phone Threat Report Form** *(to be filled out during actual phone call)* • **Written Threat Report Form** • **Water Quality / Consumer Complaint Report Form** • **Public Health Information Report Form** B. Complete **Threat Evaluation Worksheet** (Appendix F of ERP). C. Evaluate **Threat Evaluation Worksheet** and determine if threat is Possible. If YES, perform Response Steps 1 – 8 below. If NO, i. Return to normal operations. ii. Document and record the threat for future reference.	*Threat Warning Report Forms help document, organize, and summarize information about a security incident. The individual who discovers the incident warning, the WUERM, or another designated individual may complete the form. Only the form that corresponds to the type of threat warning needs to be completed. Completion of the form should not distract emergency responders from more urgent matters.* *Threat Evaluation Worksheets help organize information about a threat warning that will be used during the Threat Evaluation Process. The individual responsible for conducting the Threat Evaluation (e.g., the WUERM) should complete this worksheet found in Appendix F.*
II. Isolate and Fix the Problem	1. Notify local law enforcement. 2. Notify State Drinking Water Agency. 3. Do not disturb site if location could be possible crime scene. Consult **Maintaining Crime Scene Integrity** Form in Appendix F. 4. Alert staff and emergency response personnel about threat. 5. Consider containment / isolation, elevating chlorination, and/or discharge of suspect water. 6. Evaluate spread of suspect water and potential impact on public health.	*Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Communication Section of the ERP.* *The immediate operational response actions are primarily intended to limit exposure of customers to potentially contaminated water.* *See EPA Toolbox Module 2, Section 3.3.2 for guidance on containing contaminants and evaluating movement of potentially contaminated water through distribution systems.*

AP 1A - Threat of or Actual Contamination to Water System POSSIBLE STAGE		
III. Monitoring	7. Initiate Site Characterization Activities: • Define the investigation site. • Designate site characterization team members. • Conduct preliminary assessment of potential site hazards. • Approach site and conduct field safety screening to detect any hazards to the characterization team. • Search for physical evidence (discarded containers, etc.). • Investigate records from CCTV cameras. • Look for environmental indicators (dead animals or fish, dead vegetation, unusual odors, or residues). • Perform rapid field testing of the water. • Collect water samples according to sampling plan.	*Site Characterization is intended to gather critical information to support the 'credible' stage of threat evaluation.* *If signs of a hazard are evident during the site approach, the team should halt their approach and immediately inform the WUERM of their findings. The site may then be turned over to the HAZMAT Team.* *The WUERM may determine the threat is credible based preliminary information before the site characterization has been completed.*
IV. Recovery and Return to Safety	8. Determine if threat is credible. If YES, initiate AP 1B. If NO, • Return to normal operations. • Store water samples for one month.	*You should determine whether or not the threat is 'credible' **within 2 to 8 hours (preferably within 2 hours)** from the time the threat is deemed 'possible', depending on the effectiveness of the containment strategy.* *If the threat is not deemed 'credible', the samples obtained during site characterization should be stored in case the situation changes and analysis is determined to be necessary.*
V. Report of Findings	9. File incident reports.	*The Utility Security Director or applicable, should file an internal report for the Utility's files, and also provide information as requested to Local Law Enforcement.*
VI. AP-1A Revision Dates		

AP 1B - Threat of or Actual Contamination to Water System

CREDIBLE STAGE

AP Summary:	This Action Plan applies to the intentional introduction of a contaminant into the water system. The contaminant could be introduced at any point within the system, including raw water, treatment facilities, distribution system including distribution pipes, finished water storage, or pump stations. The adversary may or may not give notice, identify the contaminant, or provide the location. Contamination may have actually occurred, or it may be a hoax.	
Initiation and Notification:	A. Initiate this AP if there is credible evidence that the water system has been contaminated: • Additional information collected during the investigation corroborates the threat warning. • Collective information indicates that contamination is likely. • Signs of contamination are observed during site characterization. • Additional water quality data shows unusual trends that are consistent with the initial data and corroborate the threat. • A pattern of customer complaints emerges. • Previous threats and incidents corroborate the current threat. B. Notify WUERM or Alternate WUERM immediately upon discovery of credible evidence of threat (if not already notified). C. Initiate ERP. D. Initiate partial or full activation of the Emergency Operations Center (EOC). Perform internal and external notifications according to ERP.	*If there is confirmed evidence and/or definitive information that the water system has been contaminated,* ***GO TO AP 1C – CONFIRMED STAGE.*** *The individual who first notices or receives the credible evidence should contact the WUERM immediately by whatever means of communication may be available.* *The WUERM will decide whether to initiate the ERP on a partial or full basis. The WUERM will also decide when and to what extent to activate the EOC.* *Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Communication Section of the ERP.* *The Public Information Officer, PIO is the only one authorized to make notifications to outside agencies.*
Equipment Identified:	**Equipment** **Water quality testing at Clinical Laboratories of San Bernardino, CA**	*This equipment is available to assist in the execution of this AP.*

AP 1B - Threat of or Actual Contamination to Water System CREDIBLE STAGE		
	Location **21881 Barton Rd, Grand Terrace, CA 92313**	
Specific Activities:		
I. Assess the Problem	1. Assess results of previous sample analysis. 2. Perform additional site characterization at primary sites as needed. 3. Perform site characterization at any new investigation sites.	
II. Isolate and Fix the Problem	4. Perform actions to estimate the contaminated area and predict movement of contamination. 5. Take actions to isolate portions of system containing suspect water. 6. Issue "Boil Water", "Do not Drink", or "Do not Use" Notices and Press Releases as appropriate. See Section Appendix D of ERP for **Press Release Forms**. 7. Initiate to provide alternate water supply for customers and fire protection as necessary.	*The contaminated area can be estimated using hydraulic models, consumer complaints, public health agency reports, water quality data, or other available information. The estimate may define additional locations where site characterization should be performed*
III. Monitoring	8. Continue to monitor water quality in suspect parts of system by manual sampling, rapid field testing, or automated means.	
IV. Recovery and Return to Safety	9. Determine if threat is Confirmed. If YES, Initiate AP 1C. If NO, • Verify that water is safe.	*It may take several days to collect sufficient evidence to confirm a contamination incident, depending on the type of information used for confirmation. (Some*

AP 1B - Threat of or Actual Contamination to Water System CREDIBLE STAGE		
	• Notify public that water is safe. • Notify outside agencies that water is safe. • Return to normal operations. • Store water samples for ***(enter predetermined time period here).***	*microbiological analytical procedures may take several days.)* *If the threat is not deemed 'confirmed', the samples obtained during site characterization should be stored in case the situation changes and an analysis is determined to be necessary.*
V. Report of Findings	E. File incident reports.	*The Utility Security Director or applicable, should file an internal report for the Utility's files, and also provide information as requested to Local Law Enforcement and other outside agencies.*
VI. AP-1B Revision Dates		

AP 1C - Contamination to Water System

CONFIRMED STAGE

AP Summary:	This Action Plan applies to the intentional introduction of a contaminant into the water system. The contaminant could be introduced at any point within the system, including raw water, treatment facilities, distribution system including distribution pipes, finished water storage, or pump stations. The adversary may or may not give notice, identify the contaminant, or provide the location. Contamination may have actually occurred, or it may be a hoax.	
Initiation and Notification:	A. Initiate this AP if there is confirmed evidence that the water system has been contaminated: 1. There is **analytical confirmation** of the presence of one or more contaminants in the water system. 2. The **preponderance of the evidence** confirms that a contamination incident has occurred. • There is a security breach with obvious signs of contamination along with unusual water quality and consumer complaints in the vicinity of the security breach. • Additional findings (laboratory analysis, field observations) of continued site characterization activities add to other credible evidence of contamination. • There is information from public health officials, area hospitals, or 911 call centers indicating a problem with the water supply. • Law enforcement agencies have discovered crucial evidence or apprehended a suspect that helps confirm that the water has been contaminated. • Specific information on a number of potential contaminants can be used in conjunction with other available information to narrow down the	*If there is **no** confirmed evidence and no definitive information that the water system has been threatened or contaminated, **GO TO AP 1B – CREDIBLE STAGE.*** *It may take several days to collect sufficient evidence to confirm a contamination incident, and the required time will depend on the type of information used for confirmation (some microbial analytical procedures may take several days).*

AP 1C - Contamination to Water System CONFIRMED STAGE		
	number of contaminant candidates.	
Initiation and Notification:	B. Notify WUERM or Alternate WEURM immediately upon discovery of confirmed evidence of contamination (if not already notified). C. Initiate full ERP activation. D. Initiate full activation of Emergency Operations Center (EOC). E. Engage other organization as needed (drinking water primacy agency, public health agency, response agencies, law enforcement). F. Perform internal and external notifications according to ERP.	*The individual who first becomes aware of the confirmed evidence should contact the WUERM immediately by whatever means of communication may be available.* *The WUERM will decide whether to initiate the ERP on a partial or full basis. The WUERM will also decide when and to what extent to activate the EOC.* *Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section 3.3 of the ERP.* *The Public Information Officer, PIO, should make the notifications to the outside agencies.*
Equipment Identified:	**Equipment** **Water quality testing at Clinical Laboratories of San Bernardino, CA** **Location** **21881 Barton Rd, Grand Terrace, CA 92313**	*This equipment is available to assist in the execution of this AP.*
Specific Activities:		

AP 1C - Contamination to Water System

CONFIRMED STAGE

I. Assess the Problem	1. Assess results of previous sample analysis and attempt to identify the contaminant. 2. Confirm the identity of the contaminant.	*Effective implementation of response actions depends on positive identification of the contaminant and knowledge of contaminant properties, including public health protection strategies and selection of treatment technologies.*
I. Assess the Problem	3. Perform a full characterization of the contaminated area, including contaminant properties, contaminant concentration profiles, and characteristics of the impacted area. 4. Evaluate the likely direction and extent of future movement of the contaminant within the distribution system. 5. Evaluate all available information about the contamination incident	*If information from site characterization activities indicates that the contaminant impacts water quality in a certain manner (i.e., consumes free chlorine or imparts a certain odor to the water), the contaminant specific information may facilitate tentative identification of a contaminant and determine the analytical approach that should be used to positively identify the specific contaminant. Sources of contaminant information include:* *http://www.bt.cdc.gov/agent/agentlistchem.asp* *http://www.atsdr.cdc.gov/substances/index.asp* *http://www.waterisac.org/* *EPA Water Contaminant Information Tool (WCIT) – http://water.epa.gov/scitech/datait/databases/wcit/index.cfm*
II. Isolate and Fix the Problem	6. Take actions to isolate portions of system containing suspect water. *7.* Shut down system if obvious or confirmed contamination warrants. *8.* Issue "Boil Water", "Do not Drink", or "Do not Use" Notices and Press Releases as appropriate. See Appendix D of ERP for **Press Release Forms**. 9. Initiate Alternate Water Supply Plan to provide alternate water supply for customers and fire protection as necessary. 10. Revise public health response measures and public notifications as necessary.	*The contaminated area can be estimated using hydraulic modes, consumer complaints, public health agency reports, water quality data, or other available information. The estimate may define additional locations where site characterization should be performed.*

AP 1C - Contamination to Water System CONFIRMED STAGE		
III. Monitoring	11. Continue sampling and analysis to monitor the status and extent of the contamination, and to verify that containment strategies are working.	
IV. Recovery and Return to Safety	12. Consult with appropriate officials to develop a Remediation and Recovery Plan. a. Evaluate options for treating contaminated water and rehabilitating system components. b. Select treatment and rehabilitation technology/approach. c. Develop strategy for disposal of contaminated residuals. d. Develop sampling and analysis plan to verify remediation. e. Develop communications and public relations plan. 13. Implement Remediation and Recovery Plan. a. Verify that water is safe by performing additional sampling and analysis to confirm the progress of system treatment and remediation. b. Notify public that water is safe. c. Notify outside agencies that water is safe. d. Return to normal operations. e. Store water samples for ***(enter predetermined time period here).***	*Remediation and recovery activities will likely be planned and implemented by a number of agencies. The first step of the process is to establish the roles and responsibilities of each organization* *The samples obtained during site characterization and monitoring should be stored in case the situation changes and further analysis is determined to be necessary.*
V. Report of Findings	G. File incident reports with internal and external agencies as required.	*The Utility Security Director or applicable, should file an internal report for the Utility's*

AP 1C - Contamination to Water System CONFIRMED STAGE		
		files, and also provide information as requested to outside agencies.
VI. AP-1C Revision Dates		

AP 2 - Structural Damage from Explosive Device

AP Summary:	This Action Plan applies to an incident where intentional structural damage has occurred to the water system as a result of an explosive device. The assumed intent of the explosion is to disrupt normal system operations any point within the system, including raw water, treatment, finished water storage, or the distribution network.	
Initiation and Notification:	A. Initiate this AP if it appears that an explosive device has caused damage or has the potential to cause damage to one or more components of the water system. The event will begin with an "incident discovery" which may come to **CVWD** by one (or more) of the following: • Security Equipment • Employee Discovery • Witness Account of Explosion • Notification By Adversary • Notification by Fire Department • Notification By Law Enforcement • Notification By News Media B. Call 911 and notify WUERM or Alternate WUERM immediately upon discovery of the explosion. The WUERM should then notify others as appropriate. Examples include: a. Local Fire Department b. Local Police Department c. FBI d. ATF C. Take all practical measures to ensure that the building or facility is evacuated.	*The individual who first notices or receives word of the explosion should contact the WUERM immediately by whatever means of communication are available.* *Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Communication Section of the ERP.*
Initiation and Notification:	D. In cases where an adversary calls a **CVWD** employee in advance that employee should complete the **Bomb Threat Checklist** OR **Phone Threat Report Form** found in Appendix F of the ERP. E. Initiate partial or full ERP activation. F. Initiate partial or full activation of the Emergency Operations Center (EOC).	*The **Bomb Threat Checklist** and the **Phone Threat Report Form** contain questions that should be asked the caller, if possible, to help determine the specifics of the threat including the location of the explosive device, type of device, time of detonation, and reason for the attack.* *The WUERM will decide whether to initiate the ERP on a partial or full basis. The*

AP 2 - Structural Damage from Explosive Device		
	G. Engage other organization as needed (Law Enforcement, Fire Protection, FBI). H. Perform internal and external notifications according to ERP.	*WUERM will also decide when and to what extent to activate the EOC.*
Equipment Identified:	**Equipment** **N/A** **Location** **N/A**	*This equipment is available to assist in the execution of this AP.*
Specific Activities:		
I. Assess the Problem	1. Deploy Damage Assessment Team(s) (DAT) • Perform a thorough assessment of the structural damage caused by the explosion. • Determine how explosion is effecting system operations. 2. Check and monitor all other water system functions and facilities to ensure that the rest of the system is operating normally. (The initial explosion could be a diversion to a larger event, or it could be the first in a series of similar attacks.) 3. If the damage appears to be intentional, treat as a crime scene. Consult with local police, state police, and the FBI on evidence preservation. Also see **Maintaining Crime Scene Integrity** Form, Appendix F of ERP.	*The DAT will work in conjunction with local/state law enforcement in terms of incident command and control.* ***UNDER NO CIRCUMSTANCES WILL THE DAT TEAM ENTER THE AREA CONTAINING THE EXPLOSIVE DEVICE UNTIL AFTER THE LOCAL LAW ENFORCEMENT EXPLOSION SPECIALISTS (BOMB SQUAD) HAS DETERMINED THAT THE AREA IS SAFE.***

AP 2 - Structural Damage from Explosive Device		
	4. Isolate damaged facility from rest of water system and take measures to bypass the damaged area if possible. 5. Inform local police, state police, and the FBI of potential hazardous materials.	
II. Isolate and Fix the Problem	6. Physically secure water system facilities and implement heightened security procedures throughout the system. 7. Initiate to provide alternate water supply for customers and fire protection as necessary. 8. Based on extent of damage, consider alternate (interim) treatment schemes. 9. Issue public notification, "Boil Water", "Do not Drink", or "Do not Use" Notices and other Press Releases as appropriate. See Appendix D of ERP for **Press Release Forms**. 10. Request assistance from outside contractors or other water utilities if needed to help repair the damage.	
III. Monitoring	11. Perform sampling and monitoring activities and analysis to determine if the explosion has rendered the water supply unsafe for customers. 12. Perform a system pressure evaluation to determine how the explosion has affected customers and fire water capability in each pressure zone.	
IV. Recovery and Return to Safety	13. Repair damage to critical equipment and facilities as soon as possible. 14. Determine and mitigate effects on other system components. For example, replace water storage capacity if it was diminished during repairs. 15. Clean and disinfect system components as necessary. 16. Resume normal operations.	*The WUERM will inspect the repairs and will give the OK to resume normal operation of the water system* *The WUERM will evaluate a heightened security posture. As a result, security will be increased or decreased as necessary according to the perceived threat.*

AP 2 - Structural Damage from Explosive Device		
	17. Asses need for additional protection/security measures.	
V. Report of Findings	18. File incident reports.	*The Utility Security Director should file an internal report for the Utility's files, and also provide information as requested to Local Law Enforcement and other outside agencies.*
VI. AP-2 Revision Dates		

AP 3 – Employee Assaulted with Weapon (Armed Intruder)

AP Summary:	This Action Plan applies to the threat of an employee(s) being assaulted by an intruder (possibly an ex-employee), with a weapon. Incidents of this type will vary in scale and severity, but the following should generally apply across the spectrum of threat conditions. **If you believe this threat is of current importance and have not yet dialed 911 or an emergency equivalent, do so immediately before proceeding.**	
Initiation and Notification:	Initial notification of the incident will vary in both method and urgency, however in any scenario the first priority is the welfare of the assault victim. Under all circumstances, emergency personnel should be notified and consulted immediately. This threat requires a response addressing three distinct categories: • Ensuring the health and safety of the victim and other employees. • Notifying and facilitating involvement of the proper authorities. • Communicating specifics of the incident to other staff, the media, and the victim's relatives. Remain aware of these aspects of your response as the AP is initiated and consulted.	*The individual who first notices or receives word of the assault should contact 911 immediately by whatever means of communication may be available.* *Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Communication Section of the ERP.*
Equipment Identified:	**Equipment** **Alarm System** **Location** **Main Office Facility** **777 Cottonwood Dr, Crestline, CA 92325**	*This equipment is available to assist in the execution of this AP.*

AP 3 – Employee Assaulted with Weapon (Armed Intruder)		
Specific Activities:		
I. Assess the Problem	Assessment of the severity of injury should not be made by Utility staff, proper diagnosis should be made only by trained medical personnel. The following general steps will be prudent: 1. The first task upon discovery of the incident is to dial 911 and report the incident in detail. 2. An ambulance (or other transportation to the hospital in less urgent situations) should be immediately arranged in all cases. 3. Decision-making control of the situation should be readily surrendered to the proper authorities. 4. In the event of a hostage situation or extended incident, Utility staff should notify the authorities and evacuate the area quickly. 5. Under no circumstances should Utility personnel attempt to subdue the adversary or bring personal weapons onto the scene.	*Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Communication Section of the ERP.*
II. Isolate and Fix the Problem	6. If witnesses were present, they should be readily available to provide information to the authorities. Fill out the **Suspect Identification Form**. See Appendix F of ERP. 7. The area surrounding the incident is a crime scene and care should be taken not to alter anything that may impair the ability of the authorities to interpret or recreate the assault. Consult the **Maintaining Crime Scene Integrity** Form located in Appendix F of this ERP. 8. The weapon, if present, should not be handled or touched in any way.	
III. Monitoring	9. Communication with the media should be handled in a proactive fashion, with statements made only by the identified Utility spokesperson. Similarly, employees should not be left to spread the word through gossip and hearsay. An	*See ERP Communication Section.*

AP 3 – Employee Assaulted with Weapon (Armed Intruder)		
	announcement carrying relevant details should be disseminated promptly. 10. If the assault victim is injured or otherwise unable to perform his/her duties, the replacement personnel may also be under significant stress. Care should be taking in selecting replacement personnel including monitoring of performance and behavior	
IV. Recovery and Return to Safety	11. Staff stress may have serious ramifications. It is important to evaluate these effects in an ongoing fashion and address them accordingly. The Utility should consider temporary mental health counselors under such tragic circumstances. 12. In the event of a fatality, notification of family is an unfortunate duty, which may be best handled by the local police or other authorities experienced in such tasks. 13. If security was breached during the incident, rapidly address any weakness the incident may have identified. Evaluate access to the incident location and modify where necessary. 14. If the adversary was acting with an identifiable motive, consider the mentality and culture of the utility to evaluate if the underlying issue may be significant and widespread. 15. If assault was of a sexual nature, consider awareness training for utility staff. 16. The need to maintain a heightened security posture should be evaluated, and security should be increased and decreased as necessary according to the perceived threat.	
V. Report of Findings	17. In addition to completing the appropriate filings with the local police and other agencies, the utility should assemble relevant personnel to review the effectiveness of the action plan and reinforce lessons learned in the process.	

AP 3 – Employee Assaulted with Weapon (Armed Intruder)	
VI. AP-3 Revision Dates	

AP4 – SCADA Security

AP Summary:

This Action Plan applies to a cyber attack on a SCADA network system when the cyber intruder is:

- Conducting DoS (Denial of Service)
- Initiating SCADA/DCS command spoofing
- Attempting to take the SCADA/DCS system down
- Attempting to take control of or is in control of the system

Prepare for problems by:

- *Updating all network documentation around the SCADA/DCS*
- *Documenting all network data flows to/from Intranet systems, SCADA/DCS and surrounding systems*
- *Identifying Zones of Vulnerability*
- *Identifying ramifications and feasibility of disconnecting networks, computers, and data flows*
- *Ensuring that sufficient monitoring and network control points (firewalls, IPS, etc.) are in place to both know what's happening on your network and how to control it*
- *Characterizing network traffic so that anomalous behavior can be identified*
- *Becoming familiar with computer forensics tools and practices before being forced to learn them "under fire"*
- *Becoming familiar with host-based monitoring and intrusion detection since most hacking over networks is now conducted via encrypted tunnels or data streams.*
- *Ensuring that backup/restore procedures are up to date, as are the backups themselves*
- *Consult and use the resources of the Industrial Control Systems Cyber Emergency Response Team (ICSCERT) - https://ics-cert.us-cert.gov/ and the United States Computer Emergency Readiness Team (USCERT) - https://www.us-cert.gov/.*

Initiation and Notification:

Notify immediately upon discovery of the attack:

- WUERM,
- Data (IT) Manager

Others as appropriate (for example):

- Internet Service Provider
- Computer Equipment Vendor
- Computer Emergency Response Team

The individual that first notices or receives word of an attack should contact the Data (IT) manager and WUERM immediately by whatever means of communication may be available.

Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section 3.3 of the ERP.

AP4 – SCADA Security		
Equipment Identified:	Equipment N/A Location N/A	*This equipment is available to assist in the execution of this AP.*
Specific Activities:		
I. Assess the Problem	An attack on SCADA system may be manifested in several different manners and may be quite difficult to initially determine the specific mode of attack or objective of the SCADA threat. Initial areas for investigation are: • SCADA is not controlling plant parameters • Complaints from customers • Quality of water results • Inadequate throughput	*In a DoS an intruder breaks into a number of computers and plants programs that lie dormant until activated by the attacker. The computers then send a steady stream of data packets to a targeted Web site in an attempt to crash a service (or server), overload network links, or disrupt other mission-critical resources. DoS attacks are powerful because they can be launched simultaneously from hundreds of remotely controlled computers, thereby amplifying their reach. The objective of a DoS attack is to exhaust the resources of the target until the underlying network fails. The tools for DoS attacks are widely available and can be found at numerous hacker Web sites.*
II. Isolate and Fix the Problem	1. Restrict physical access to the area. 2. Physically unplug any phone lines that could dial in to the attacked computer. 3. Unplug the computer from the network. 4. Determine if the SCADA system needs to be isolated from process operations and taken completely offline.	*Restricting access helps to preserve fingerprints for later prosecution (if physical access to systems is involved)* *These steps isolate the SCADA system from the outside world where the cyber attack is originating.* *The SCADA system itself may be malfunctioning as a result of the attacks with equipment not operating as originally intended.* *Useful for later reference if the machine needs to be disassembled for examination.*

AP4 – SCADA Security		
	5. Photograph the scene, including connections to any peripherals. 6. IF the computer is off, DO NOT turn it on (preferred method is to jumper system disk drive(s) as read only, and perform a post-mortem on a separate computer using suitable tools.) 7. IF the computer is on, DO NOT reboot it. 8. Avoid accessing any files on the compromised machine. 9. Increase sampling at or near system intakes – consider whether to isolate. 10. Preserve latest full battery background test at baseline. 11. Increase sampling efforts. 12. Check for water sector warnings (*Water ISAC may contain additional protective actions to consider: https://www.waterisac.org/ or https://www.infragard.org/ for secure access infragard members)*	*Merely turning on a Windows computer changes time stamps and other important evidence, for example.* *Rebooting your computer may launch viruses or time bombs.* *Access timestamps may be altered.* *Manual sampling may be necessary if computerized processes are not functioning properly.* *A baseline analysis is important for determining if changes of an unknown nature are made to the water supply* *Contamination may pass through the system unnoticed if an insufficient number of sampling points are used or if sampling points and mis-specified.*
III. Monitoring	13. Monitor unmanned components (storage tanks & pumping stations) – consider whether to isolate.	*With the SCADA system down, it may be easier for attackers to physically enter the site undetected*
IV. Recovery and Return to Safety	14. Solicit the assistance of a Computer Emergency Response Team or Network Forensics Specialists. **OR with appropriate training, develop site-specific procedures to:** 15. Retrieve logged data from the various equipment and server logs.	*Computer Emergency Response Teams:* *Preserve the evidence,* *Determine the extent of damage,* *Return the system to normal operation.* *The goal is for proper forensics to be performed on these logs such that it cannot be claimed that these logs were tampered or altered, and prosecution can therefore take place.* *The goal is to preserve evidence for identifying and prosecuting the attacker*

AP4 – SCADA Security		
	16. Collect adequate information (make image copies). 17. With law enforcement/FBI assistance, check for implanted backdoors and other malicious code (i.e., Trojan horse, or worm). 18. Install safeguards and patch to current levels.	*utilizing assistance from the proper authorities in command (FBI, EPA, Police, Computer Emergency Response Team, etc.).*
IV. Recovery and Return to Safety	19. Test security breach to ensure plugged (in a safe mode, in case the either the problem hasn't been fixed or some other attack was installed unbeknownst). 20. Assess / implement additional precautions for SCADA system.	*Prematurely returning the system to operation may make the utility susceptible to specific attack via purposefully implanted attack pathways.* *Simply returning the system to operation may be insufficient and invite future attacks.* *Ensures attacker cannot use same method to compromise SCADA system.* *Simply restoring from recent backup media may be insufficient to restore the system to a trusted state.*
V. Report of Findings	21. Turn over evidence to the proper authorities.	*Supports prosecution of attack*
VI. AP-4 Revision Dates		

AP5 – IT Security

AP Summary:

This Action Plan applies to a cyber attack on an IT intranet system. Examples of cyber include:

- Virus
- Denial of Service (DoS) including Smurf, ICMP, TCP SYN, UDP, TCP, Distributed Denial of Service, and various combinations
- Internet facing server attacks
- Unauthorized Network Intrusions / Unauthorized Access

Prepare for problems by:

- Updating all network documentation around the SCADA/DCS
- Documenting all network data flows to/from Intranet systems, SCADA/DCS and surrounding systems
- Identifying Zones of Vulnerability
- Identifying ramifications and feasibility of disconnecting networks, computers, and data flows
- Ensuring that sufficient monitoring and network control points (firewalls, IPS, etc.) are in place to both know what's happening on your network and how to control it
- Characterizing network traffic so that anomalous behavior can be identified
- Becoming familiar with computer forensics tools and practices before being forced to learn them "under fire"
- Becoming familiar with host-based monitoring and intrusion detection, since most hacking over networks is now conducted via encrypted tunnels or data streams
- Ensuring that backup/restore procedures are up to date, as are the backups themselves
- Consult and use the resources of the Industrial Control Systems Cyber Emergency Response Team (ICSCERT) - https://ics-cert.us-cert.gov/ and the United States Computer Emergency Readiness Team (USCERT) - https://www.us-cert.gov/.

Initiation and Notification:

Notify immediately upon discovery of the attack:

- WUERM,
- Data (IT) Manager/Consultant

Contact others as appropriate:

- Internet Service Provider,
- Computer Equipment Vendor,

Computer Emergency Response Team

The individual that first notices or receives word of the attack should contact both the Data (IT) Manager/Consultant and WUERM by whatever means of communication may be available.

Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.

AP5 – IT Security		
Initiation and Notification:	**Initiate this AP if any of the following has occurred:** • More than one user reports unusual behavior of any IT system or software. • Network intrusion detection indicates a violation. • Unusual IT system activity is noted on holidays, evenings, or weekends. • Unusual log file entries are noticed. • Presence of new **setuid** or **setgid** files are discovered. • Changes in system directories and files are noted. • Unusual hidden files or ambiguous files, such as those from past incidents, are noticed. • Users' home pages are altered. • Accounting discrepancies are noticed. • Suspicious probes and /or browsing is identified. • Presence of cracking utilities is found. • Unaccounted for changes in the DNS tables, router rules, or firewall rules are discovered. • Unexplained elevation or use of privileges.	*Unusual log file entries - Although expert intruders are good at covering their tracks, examples include numerous failed login attempts, and logins into dormant or default accounts (logins when not expected logins to infrequently used accounts)* *Missing files, altered files, unknown users in password files* *Unusual hidden files– For example,* ***/tmp/bob*** *and* ***/etc/inet/d*** *(/tmp/…, /tmp/(space), /dev/* as real files rather than device files)* *Altered home pages – These are usually the intentional target for visibility or other pages on the Web server* *Suspicious probes – For example login attempts* *An authorized user with bad intentions might, have loaded cracking utilities such as Crack.* *Unexplained elevation – for example gaining super user privileges.*
Equipment Identified:	**Equipment** **N/A – contact outside IT vendor Computer Options** **(909) 793-6338** **Location** **447 Missouri Ct, Redlands, CA 92373**	*This equipment is available to assist in the execution of this AP.*

AP5 – IT Security		
Specific Activities:	Complete: **IT Incident Response and Reporting Checklist**.	*Human error or a software failure can sometimes mimic the actions of an intruder. New content on a Web server, newly released products, or anything that may generate above-normal amounts of traffic may seem like a DoS attack* *In many incidents, the perpetrator gains unauthorized access, but doesn't actually access privileged information or alter data.*
I. Assess the Problem	**Note:** Because the approach to addressing an incident can vary depending on the nature of the incident, it is critical to be aware of the type of incident that has occurred **BEFORE** taking action. 1. Protect Customer Information (Take the customer information database, assuming it is a standard database, off the network, so that it is no longer accessible). Note: Modems should not be allowed on the database machine. 2. Isolate and Contain the Threat (Insert site-specific procedures consistent with your system architecture) 3. Document the event (See items 4 and 16) 4. Take a snapshot of the system – Obtain forensic images and preserve original media. • Registers, peripheral memory, caches • Memory (kernel and physical) • Network state • Running processes • Hardware data residue, memory chips, and PDA-type systems • Hard disks • Disks and backup media	*Note: Be prepared to revise the response plan as necessary based on new information. Flexibility is important. Be ready to change monitoring and defensive strategies during an incident as necessary to handle the distinctive circumstances of an individual attack.* *You might maintain critical customer information on your network. If a hacker steals, modifies, destroys, or even posts the information to the Internet, you may find yourself in court.* *In general, the intruder or the malicious code should be prevented from working through the network. Attempts to contain the threat should also take into account every effort to minimize the impact to business operations. Prevent the use of your systems to launch attacks against other companies. Your computer may become one of hundreds of "soldier" machines rather than an "end target".* *Recording all of the details may provide management with the information necessary to assess the break-in and could assist in the prosecution of specific individuals.* *A snapshot is basically a photo of what a computer's memory (primary storage, specific registers, etc.) contains at a specific point in time. It can be used to catch intruders by recording information that the hacker*

AP5 – IT Security		
	• CD-ROMs • Printouts	*may erase before the attack is completed or repelled.*
II. Isolate and Fix the Problem	5. Save the system state by backing up as much of the system as necessary. 6. Alert others according to the response strategy including contacting a Computer Emergency Response Team. 7. Determine if the system should be disconnected from the network. 8. Determine if the system should be shut down entirely.	*Serves to further diagnose the inciden.t* *Alerting others may be done in parallel with other steps. The Computer Emergency Response Team may know how to fix the flaw in the vendor's software or hardware that allowed the intruder to access your network.* *Users should still be able to use some local services. Be careful. The network might involve wireless local area networks. In these cases, it might be important to disable and/or remove the wireless access points from the internal network. Sometimes you may need to disconnect a system from the network to prevent further damage and limit the extent of the attack.* *This action might appear drastic but is sometimes advisable usually based on a decision to prevent further loss and/or disruption. Shut down or disconnect resources only when absolutely necessary.*
III. Monitoring	9. Perform real-time scanning and detection to prevent further infection 10. Set up traps.	*This involves actively tracking traffic for unusual activity (for example, port scanning) or patterns of an attack stream of bits, bytes, or packets. Attackers sometimes use a "smoke screen", an attack that attempts to divert attention from a stealthier network intrusion. It is therefore important not to focus all attention on an initial attack, but to continue diligently looking for other attacks.* *This action involves learning the intruder's identity or modus operandi (MO). The MO is a mechanism by which the perpetrator commits his or her crime. It is a learned behavior and can change over time. A MO can be considered a pattern, allowing for some variance. Examples of traps are honeypots (that is, computers designed to attract attackers in order to record*

AP5 – IT Security		
		their behavior and to gather evidence, but not meant for legitimate users.)
IV. Recovery and Return to Safety	11. Change the filtering rules of firewalls and routers. 12. Disable known vulnerable services. 13. Remove any hidden malicious programs or directories added by the intruder or deployed by the malicious code, up to and including a system-wide removal of all programs and files (i.e., format the disk and re-install). 14. Update virus signatures. 15. Eliminate the vulnerability that allowed the exploit and ensure the system is restored with an optimal security configuration. 16. Complete a break-in report. 17. Based on experience, identify and document tools and techniques that would improve future incident responses.	*This action excludes traffic from hosts that appear to be the source of an attack.* *Such as file transfer or calendar services. This action is effective when attackers exploit newly discovered service vulnerabilities.* *Need to balance the need recovery with the need to preserve evidence for prosecution.* *Although it takes longer to update antivirus signatures to the desktop community, IT professionals can quickly update antivirus signatures at the gateway and perimeter to minimize the impact immediately.* *Break-in reports provide an overall picture of the status of network security. Chronic, increasing break-in reports indicate need to update system security overall and help pinpoint weak points.* *Thoroughly examine how well your procedures worked and decide whether you need to make changes for the future.*
V. Report of Findings	18. Turn over evidence to the proper authorities.	*Supports prosecution of attack.*
VI. AP-5 Revision Dates		

AP 6 – Chlorine Release		
AP Summary:	This Action Plan applies to an uncontrolled release of any quantity of chlorine gas.	
Initiation and Notification:	When a release of chlorine gas has been confirmed. Notify: • WUERM • Alternate WUERM	*The individual who first notices the release should contact the WUERM immediately by whatever means of communication may be available.* *Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Communication Section of the ERP.*
Equipment Identified:	**Note only trained personnel should attempt to use any emergency tools or Personal Protective Equipment (PPE)** **Equipment** Self-Contained Breathing Apparatus (SCBA), level "A" Personal Protective Equipment (PPE) Chlorine Emergency Kits Ammonia bottle for small leaks Designated chlorine use tools Portable chlorine/oxygen alarm	*Chlorine is a highly toxic gas stored under pressure on this site.* *Chlorine is toxic by inhalation and high concentrations can cause skin irritation and severe eye injury. See MSDS*

AP 6 – Chlorine Release

Specific Activities:		
I. Assess the Problem	1. Determine number and severity of any injured personnel. 2. Estimate the rate and volume of the release. 3. Determine wind directions and potential for additional on-site and off-site impacts. 4. Based on number of adequately trained and equipped personnel, determine response capability (in-house or off-site personnel). Activate the facility Emergency Operations Center (EOC), as appropriate.	*Personnel need to be moved to or seek shelter away from the release area.* *Fully PPE protected personnel may be required to rescue personnel in the release area.* *Rate & volume of release, size of container, and wind direction will all influence the ability to control the release as well as determine the impact of the release on both on-site and off-site personnel*
II. Isolate and Fix the Problem	Note: Only trained personnel using pre-planned procedures should respond to uncontrolled chlorine releases. Attempt to install a Chlorine Emergency Kit **ONLY** if you are familiar with the kit and trained in its use. 5. Remove clothing of contaminated personnel. 6. Bag the clothing. 7. Wash victims thoroughly with soap and water. 8. Rinse eyes with plain water for 10 to 15 minutes. 9. Have Safety/Security notify the incoming emergency equipment and ambulances of staging location. 10. Detect small chlorine leaks with an atomizer or squeeze bottle filled with aqueous ammonia. (A white cloud will show the location of the leak). 11. Attempt to close the main source valve prior to entering the area. 12. **If** this does not stop the release (or it is not possible to reach the valve), **THEN** allow the gas to release in place or remove it to a safe area and allow the gas to be released there.	*Shelter-in-Place, Evacuation, or a combination may be an appropriate response. See Section VIII of ERP.* *The facility Incident Commander (IC) will have the best initial information on the magnitude of the release and be best informed to dictate on-site as well as suggest off-site actions.* *Victims need to be provided with fresh air (and oxygen by trained personnel) and have contaminated clothing removed to prevent further injury.* *Only trained and properly equipped personnel can assure a successful control of this release. Untrained or under-equipped personnel will only become more victims.*

AP 6 – Chlorine Release		
III. Monitoring	13. Monitor the surrounding area for Chlorine gas levels and oxygen. (The Chlorine level must be below 0.5 ppm and the atmosphere must have at least 19.5 percent oxygen before personnel can be allowed in the area without Self Contained Breathing Apparatus (SCBAs.)) 14. Victim should be monitored for signs of exposure which can include: • Coughing • Chest Tightness • Burning sensation in the nose, throat, and eyes • Burning pain, redness, blisters similar to frostbite • Blurred Vision • Nausea and Vomiting • Fluid in the lungs within 2-4 hours • Difficulty breathing or shortness of breath • Watery Eyes	*0.5 ppm chlorine over 8 hours has shown no effects.* *Oxygen can be replaced by chlorine gas. A 19.5% O2 level is required for entry.* *Some symptoms of exposure can be delayed so all potentially exposed personnel should be routinely monitored.* *Facility area monitoring should continue until all levels reach below 0.5 ppm after repairs are completed.*
IV. Recovery and Return to Safety	15. Maintain detailed notes of all actions 16. Re-entry by un-protected facility personnel should not occur until all repairs are made and the ppm of chlorine is below 0.5. Community re-entry levels should be established by off-site emergency personnel but should not be higher than 0.5 ppm. 17. Conduct a detailed evaluation of the failure that caused the release. This could include engineering, personnel, security, and metallurgical evaluations.	*Notes will provide details of who, what, when, and why decisions were made. This will help in the evaluation of the incident response and also in cost recovery.* *Exposure to chlorine should not exceed OSHA levels for workers. Lower levels of exposure to chlorine may be established for members of the community. Exposure levels for community members*

AP 6 – Chlorine Release		
	18. Hold post-incident discussions to include all responders and actors in the response and recovery	*should be separately determined.*
V. Report of Findings	19. All the components of the incident should be correlated and established in writing. This would include why the release occurred, how the response was managed and suggestions to improve the facility/community response in the future. The report should incorporate all relevant data from the forensics of the release to suggested changes in the emergency response plans and procedures. 20. Suggestions from the report should be submitted to the governing board/individuals for evaluation and actions to be taken.	*To learn from the incident and reduce the likelihood of future such events, a Report of Findings should be provided to the decision makers for the Utility so consideration can be given for changes in facility structure, security, procedures, or personnel.*
VI. AP 6 - Revision Dates		

AP 7 – Power Outage

AP Summary:	This Action Plan applies to events that result in power outages. Note that this Action Plan may need to be implemented in conjunction with other Action Plans (for example, severe weather) as necessary. Consider agreement with the power company to determine the priority of drinking water and wastewater systems for recovery prior to the emergency.	
Initiation and Notification:	Initiate this AP upon a loss of offsite power Notify: • WUERM • Alternate WUERM Others as appropriate, examples include: • Fuel supplier (backup generator) • Critical Care Customers • Large Water Users	*Notify the WUERM by whatever means of communication may be available.* *Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section Communication of the ERP.*
Equipment Identified:	**Equipment and** **Location – 7770 Cottonwood, Crestline, CA** Portable generators Mobile battery-powered radios Mobile/cellular phones Flashlights Spare batteries Accessory requirements (cables for generators, transformers, load banks, bus bars, distribution panels, feeder panels, fuses, outlets, load centers, etc.) Emergency kits	*Radios should have access to a frequency compatible with the local fire dept, sheriff, public health officials, other government departments, utilities, services, or consultants.* *Cell phones may not be available during power outages.*

AP 7 – Power Outage		
Specific Activities:		
I. Assess the Problem	1. Call local hydro-electric supply company – request information on the estimated down time. 2. **IF** backup generation is available, **THEN** assess the ability to supply fuel for extended periods. 3. Assess ability for HVAC or alternate to provide proper temperatures for SCADA, computer, and control systems. 4. Estimate potable water requirements under the emergency condition and determine if the utility can still meet requirements. 5. **IF** telephone is also down, **THEN** SCADA communications may be blocked. 6. Loss of power could affect utility access gates, CCTV, intrusion alarms and other remote monitoring abilities. Loss of power may be a diversionary tactic for other terrorist activity. Be alert.	*Consider agreements with fuel supply company to supply fuel automatically upon a power loss if the capability to store fuel on site is not practical. A fuel tank with capacity for at least 24 hours of run time is advisable.* *If on-staff personnel are not experienced with power-generation equipment, it is necessary to arrange for professional assistance to install and operate the mobile units.* *Evaluate back-up power with controllers that sense problems with purchased power and come up automatically.* *Complete assessment as quickly as possible.*
II. Isolate and Fix the Problem	7. Turn off unnecessary electrical equipment. 8. Start backup generators as necessary for key components: Note: Uninterruptible Power Supply (UPS) for SCADA and computers, battery back-up for Remote Terminal Unit (RTU) may only supply power for a few hours.	*This can prevent injuries and damage from unexpected equipment startups, power surges to the equipment and possible fires. If power goes out, an Uninterruptible Power Supply (UPS) provides battery power at a constant rate for several minutes, allowing you to safely turn off equipment with minimal risk or loss.* *If you permanently connect a backup electrical generator, the connection may have to meet certain technical standards required by law. Some states also require you to notify your electric utility. If you do not, utility personnel working nearby could be seriously injured.*

AP 7 – Power Outage		
II. Isolate and Fix the Problem	9. Increase disinfectant residual as a precaution to potential contamination. 10. **IF** not able to meet community requirements for water, **THEN** arrange for water to be supplied by another source. See Mutual aid agreements Section II B. of ERP and Section III.G of ERP for Alternate Water Sources. 11. Notify priority customers 12. Notify users of interruption of service if backup pump(s) is/are not capable of maintaining supply. 13. Issue "Boil Water", "Do not Drink", or "Do not Use" Notices and Press Releases as appropriate. **Appendix D of ERP for Press Release Forms**. 14. Initiate back up plan for retrieval of current information from outside sources.	*A temporary portable generator should not be connected to building wiring unless the building meets the same technical standards legally required for a permanent generator. Most buildings are not so equipped. As an alternative, use properly rated extension cords to connect electrical loads directly to the generator receptacles.* *This is an analysis of all available sources of water, not just those used under conditions of normal operation. These sources might include both new intakes or wells, public or private ponds, reservoirs, swimming pools, interconnections with other water utilities, water stored within building water systems, water provided in bottles or tank trucks from outside sources of potable water, local dairies or bottling plants, etc.* *Since computers may be down, access to Water ISAC, police, government, etc. could be compromised.*
II. Isolate and Fix the Problem	15. Consider initiating back-up portable pumping and generating capability to serve areas with limited storage, critical wastewater collection and treatment operations. 16. Facilities with freezing temperatures should turn off and drain the following lines in the event of a long term power loss: a. Fire sprinkler system b. Standpipes c. Potable Water Lines d. Toilets	
III. Monitoring	17. **IF** damage to equipment occurs, **THEN** contact vendor/mutual aid companies to replace/repair damaged equipment. 18. Monitor the status of the backup power supply and regularly test whether battery	*Ask your vendors about specific limitations of your equipment. Find out how long it would take to repair or replace damaged equipment.*

AP 7 – Power Outage		
	levels are adequate, and the backup generators are functional.	
IV. Recovery and Return to Safety	19. Conduct disinfection, flushing, and bacteriological sampling after repairs of equipment lost. 20. **IF** power outage occurs during freezing conditions, **THEN** allow electronic equipment to reach ambient temperatures before energizing to prevent condensate from forming on circuitry. 21. Fire and potable water piping should be checked for leaks from freeze damage after the heat has been restored to the facility and water turned back on. 22. Notify public/customers when it is safe to use the drinking water again.	
V. Report of Findings	23. All the components of the incident should be correlated and established in writing. This would include how the response was managed and suggestions to improve the facility / community response in the future. The report should incorporate all relevant data from the incident and suggested changes in the emergency response plans and procedures. 24. Suggestions from the report should be submitted to the governing board/individuals for evaluation and actions to be taken.	*To learn from the incident and reduce the likelihood of future such events, a Report of Findings should be provided to the decision makers for the Utility so consideration can be given for changes in facility structure, security, procedures, or personnel.*
VI. AP-7 Revision Dates		

AP 8A – Natural Event (Winter Storm)

AP Summary:	This Action Plan applies to winter storm events. In general, these events occur with reasonable lead times, and it is possible to take proactive measures, as outlined below. Response and recovery can be time consuming during such events, and they can involve loss of electrical power supply, damage of structures and equipment, disruptions of service, and injuries to utility personnel.	
Initiation and Notification:	When hazardous winter weather conditions are expected to affect the region, the National Weather Service (NWS) issues public advisories. This AP should be initiated upon official notification of a "winter storm watch" or more elevated status. In order of increasing severity, the standard terminology is as follows: **Winter Storm Outlook**: Issued prior to a Winter Storm Watch. The Outlook is given when forecasters believe winter storm conditions are possible and are usually issued 3 to 5 days in advance of a winter storm. **Winter Weather Advisory**: Issued for accumulations of snow, freezing rain, freezing drizzle, and sleet which will cause significant inconveniences and, if caution is not exercised, could lead to life-threatening situations. **Winter Storm Watch**: Alerts the public to the possibility of a blizzard, heavy snow, heavy freezing rain, or heavy sleet. Winter Storm Watches are usually issued 12 to 48 hours before the beginning of a Winter Storm. **Winter Storm Warning**: Issued when hazardous winter weather in the form of heavy snow, heavy freezing rain, or heavy sleet is imminent or occurring. Winter Storm Warnings are usually issued 12 to 24 hours before the event is expected to begin. **Blizzard Warning**: Issued for sustained or gusty winds of 35 mph or more and falling or blowing snow creating visibilities at or below ¼ mile; these conditions should persist for at least three hours. It is expected that the local the Local Emergency Planning Committee (LEPC) will carefully and continually monitor meteorological conditions and forecasts. During such events, the Local Emergency Planning Committee (LEPC) shall be in constant contact with the National Weather Service (NWS) and disseminate information to agencies via conference call, e-mail, and broadcast fax.	*See the NWS website for current warnings here:* *NWS* *Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Communication Section of the ERP.*

AP 8A – Natural Event (Winter Storm)		
Equipment Identified:	Equipment Portable Generators Location Maintenance Facility	*This equipment is available to assist in the execution of this AP.*
Specific Activities:		
I. Assess the Problem	Winter storms, accompanied by strong winds and blizzard conditions, have resulted in localized power and phone outages, closures of streets, highways, schools, businesses, and nonessential government operations. People have been isolated from essential services in their homes and vehicles. A winter storm may escalate into a catastrophic event paralyzing municipalities, and rural areas for several days. Life threatening situations may occur in which emergency response agencies cannot perform their duties due to extreme weather conditions. Individual jurisdictions may be over-whelmed and need mutual aid assistance.	
II. Isolate and Fix the Problem	Snow removal capabilities will vary widely, general procedures are as follows: **Before the storm:** 1. Activate Emergency Operations Center (EOC). 2. Monitor track of storm. 3. Release nonessential personnel, as warranted. 4. Assemble essential personnel and designate duties. 5. Typical duties at this stage may include: • Fill gravity storage tanks. • Test auxiliary power sources. • Fill fuel tanks.	

AP 8A – Natural Event (Winter Storm)		
	• Secure windows and doors. • Mobilize snow removal equipment, as warranted. • Man remote stations essential to operations. • Stockpile chemicals, food, etc.	
II. Isolate and Fix the Problem	6. Discuss needs with electric company. 7. Test back-up communications system. 8. Review mutual aid agreements and verify connections to/from neighboring water systems. Review specific power outage contingency action plan. **During the storm:** 1. Notify customers, media, and state and local authorities if service is disrupted or if significant demand management is necessary. 2. Monitor reservoirs. 3. Monitor changes in water quality. If a water quality emergency should develop, follow the appropriate procedure. 4. Open connections with neighboring water systems if necessary. 5. Provide backup power to facilities utilizing mobile generators, as appropriate.	
III. Monitoring	In order to monitor the infrastructure status and residents' health during a winter weather event, it is expected that the Utility will assist the Local Emergency Planning Committee (LEPC) in gathering the following types of information: • Electrical load • EMS cold-related responses / total responses • Cold weather-related water main breaks • Available sheltering centers • Status of salt and sand stockpiles • Available snow removal assets	

AP 8A – Natural Event (Winter Storm)		
	• Cold-related incidents / concerns During winter weather emergencies, heavy snowfall, coupled with icy roads or ice accumulations on aboveground electrical transmission lines, can result in vehicular accidents and transmission line failure. Power outages during winter weather events can pose serious problems, particularly among those communities where life-sustaining equipment (LSE) is a necessity.	
III. Monitoring	Personnel should avoid traveling by vehicle, but, if necessary, it is important to communicate destinations, routes, and expected arrival times. If vehicles get stuck along the way, help can be sent along the predetermined route. If personnel do get stuck: • Staff should stay with their car and not try to walk to safety. • Tie a colored cloth to the antenna for rescuers to see. • Start the car and use the heater for about 10 minutes every hour. Keep the exhaust pipe clear so fumes won't back up in the car. • Leave the overhead light on when the engine is running to be seen. Keep arms and legs moving to keep blood circulating and to stay warm and keep one window away from the blowing wind slightly open to let in air. During heavy storms, search and rescue operations, movement of emergency response agencies to assigned duties and restoration of essential services are likely to become the primary focus of the EOC. Priorities of response forces, prioritization of the use of snow removal equipment and allocation of all critical resources and response personnel will be the responsibility of the EOC.	
IV. Recovery **And Return to Safety**	It is recommended that staff observe the following safety tips in recovery from winter storm events: • After the storm, if personnel are required to shovel snow, be extremely careful. It is physically strenuous work, requiring frequent breaks. Avoid overexertion. Heart attacks from shoveling heavy snow are a leading cause of deaths during winter.	

AP 8A – Natural Event (Winter Storm)		
	• Walk carefully on snowy, icy, sidewalks.	
V. Report of Findings	Assemble relevant personnel to review effectiveness of action plan and reinforce lessons learned.	
VI. AP-8B Revision Dates		

AP 8B – Natural Event (Earthquake)		
AP Summary:	This Action Plan applies to earthquake events. In general, these events occur without any lead times, making it impossible to take proactive measures. Response and recovery can be time consuming during such events, and they can involve loss of electrical power supply, damage of structures and equipment, disruptions of service, and injuries to utility personnel.	
Initiation and Notification:	An earthquake usually occurs without any type of warning. Due to the suddenness, all personnel should attempt to find immediate shelter. This may include: • Standing in a doorway and bracing your hands and feet against each side. • Getting under a desk or heavy table. • Standing flat against an interior wall. • Do not seek cover under laboratory tables or benches as chemicals could spill and harm personnel. After an earthquake has stopped, initiate this earthquake AP 8D.	*Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Communication Section of the ERP.*
Equipment Identified:	Equipment Debris removal equipment. Dump trucks (2), backhoes (2), skip loader, portable shop vacuum, Laymor broom, skid steer, Vermeer chipper, maintenance trucks (9), boots, gloves, hardhats, googles. Location 777 Cottonwood Drive, Crestline, CAc92325	*This equipment is available to assist in the execution of this AP.*
Specific Activities:		
I. Assess the Problem	In general, the WUERM will organize an assessment team to undertake the following activities: • Inspect all structures for obvious cracks and damage.	*Be prepared for aftershocks. Although smaller than the main shock, aftershocks*

AP 8B – Natural Event (Earthquake)		
	• Assess condition of all electrical power feeds and switchgear. • If SCADA is working, immediately review system for all types of malfunctions, including telemetry, pressure in the distribution system, and operation of pumps and other equipment. • If buildings have any sign of damage, such as cracked walls, broken windows, downed power lines, do not enter, but wait for trained personnel. • If buildings appear safe, cautiously inspect condition of interiors for damaged equipment, leaks, chemical spills, etc. • Communicate all findings via radio to Emergency Operations Center (EOC) or WUERM, as appropriate. • Activate personnel accountability network to check for injury of staff.	*cause additional damage and may bring weakened structures down. Aftershocks can occur in the first hours, days, weeks, or even months after the quake. Follow the same procedures as for earthquakes.* *See AP 7 for specific power loss procedures.*
I. Assess the Problem	Earthquakes can cause significant power outages because of the impact on outside generation and transmission lines. After a major earthquake, power might be interrupted for an extended period of time over the entire operations area. In this instance, power restoration will most probably be slow and, depending upon the infrastructure damage, localized. Some isolated areas could take considerably longer for power restoration than others.	
II. Isolate and Fix the Problem	General earthquake procedures during an earthquake are as follows: 1. Seek shelter under a deck, table, doorway, or inside wall. 2. Once the shaking has stopped, gather valuables, and quickly make your way outside. (DO NOT USE ELEVATORS.) 3. Avoid electric wires, poles, and equipment, once outside. 4. Prepare for aftershocks.	
III. Monitoring	At all times, personnel should observe the following general steps: • Stay calm and await instructions from the designated official. • Keep away from overturned fixtures, windows, filing cabinets, and electrical power.	

AP 8B – Natural Event (Earthquake)		
	• Provide assistance and/or call for medical help for injured employees as needed. • If major structural damage has occurred, order a complete evacuation. The building should be inspected by trained personnel for damage before reentry. • Protect from further danger by putting on long pants, a long-sleeved shirt, sturdy shoes, and work gloves. • Look for and extinguish small fires. Eliminate fire hazards. • Monitor the radio for instructions. • Expect aftershocks. • Use the telephone only to report life-threatening emergencies.	
IV. Recovery And Return to Safety	General earthquake procedures after an earthquake are as follows: 1. Activate Emergency Operations Center (EOC). 2. Contact emergency assistance (local police, local fire department, rescue squad, etc.) as necessary to respond to injuries of staff. 3. The PIO is to notify customers, media, and state and local authorities if service is disrupted or if significant demand management is necessary. 4. Inspect facilities for structural damage, including buildings, storage tanks, pipelines, and process equipment. Consider the use of an outside engineering consultant. 5. Prioritize and repair water main leaks. 6. Contact neighboring purveyors for mutual aid arrangements, and open connections as needed. 7. Respond to side effects (loss of power, fire chemical spills, etc.)	
V. Report of Findings	Assemble relevant personnel to review effectiveness of action plan and reinforce lessons learned.	
VI. AP-8D Revision Dates		

AP 9 – Water Supply Interruption		
AP Summary:	This action plan applies to water supply interruptions. These events will vary in scale from compromised incremental supply volumes to complete, catastrophic loss of water supply. The ability for a utility to successfully respond to a catastrophic water supply interruption will be highly correlated to the existence of interconnections and alternative sources of supply.	
Initiation and Notification:	Catastrophic water supply interruptions will generally be identified by other events, such as physical equipment damage, severe weather, or others, which are likely to have a specific direct action plan. Incremental interruptions due to longer-term events such as drought or acute loss of one source, will lead to a prescribed series of contingency measures, as outlined below.	*Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Communication Section of the ERP.*
Equipment Identified:	**Equipment** **N/A** **Location**	*This equipment is available to assist in the execution of this AP.*
Specific Activities:		
I. Assess the Problem	There are a number of potential levels of severity involved in a water supply interruption. A series of stages of action corresponding to increasing impacts on water are: • Normal Conditions • Water Alert • Water Warning • Water Crisis • Water Emergency	
II. Isolate and Fix the Problem	Each stage has specific customized definitions, in terms of percent of Water Supply reduction, with appropriate actions or restrictions at each stage. Utilities will have a series of escalating penalties for successive violations of restrictions. These stages are:	

AP 9 – Water Supply Interruption		
	Normal Conditions – Normal conditions apply. Water is available; but in arid environments there are specific watering days for various addresses or penalties for excess watering.	
II. Isolate and Fix the Problem	**Shortage Level 1 Up to 10% Shortage** - A 5% or greater reduction in water usage is to meet the immediate needs of customers. Voluntary conservation encouraged. 13 CCF allocation, surcharge 1.5 times the basic rate, 5% per-person water use reduction. Phase 1 and 1a. prohibitions on water waste in effect. For a 5-10% shortage: 12 CCF allocation, surcharge 2 times the basic rate, and 10% per person water reduction, and 10% per person water reductio. CVWD Ord. No. 35 Phase 1, 1a, and2 prohibitions on certain water uses in effect. The water shortage situation is explained to the public and voluntary water conservation is requested (see standard press releases). **CVWD** maintains an ongoing public information campaign consisting of distribution of literature, speaking engagements, bill inserts, and conversation messages printed in local newspapers. **Shortage Level 2 Up to 20% Shortage** – 11 CCF allocation. Surcharge 2 times the basic rate. 20% per-person water use reduction. CVWD Ord. No. 35 Phases 1, 1a, 2 and 3 prohibitions on certain water uses in effect. Added prohibitions include any irrigation, of landscaping installed after the date that this phase is effective. Water supply shortage is moderate. The utility aggressively continues its public information and education programs. **Shortage Level 3 Up to 30% Shortage** – A 30% or greater reduction in water usage is to meet the immediate needs of customers. Water supply shortage is severe. 9 CCF allocation. Surcharge 2.5 times the basic rate. 30% per-person water use reduction. CVWD Ord. No. 35 Phases 1 through 4 prohibitions on certain water uses in-effect. The following is added to prohibited uses: using potable water for decorative fountains or the filling of pools, spas, decorative lakes, or ponds. Augment supply with addition supply from CLAWA. **Shortage Level 4 Up to 40% Shortage** - Up to a 40% water shortage results in 8 CCF allocation. Surcharge 3.5 times the basic rate. 40% per person water use reduction. CVWD Ord. No. 35 Phase 1, 1a, 2, 3, 4 and 5 prohibitions	

AP 9 – Water Supply Interruption		
	on certain water uses in effect. Augment water supply with additional supply from CLAWA. The following water usage is prohibited: (a) Sewer or storm system flushing for normal maintenance, and fire department training, except as approved in writing by the District. (b) Use of potable water for construction. (c) The washing of motor vehicles, trailers, boats, or other vehicles by hosing, or by use of water directly from faucets or other outlets, except: (1) Washing such vehicles from water contained in a bucket or container not exceeding 3 gallon capacity; and (2) Washing such vehicles at commercial vehicle washing facilities operated at fixed locations, which employ water recycling equipment.	
II. Isolate and Fix the Problem	**Shortage Level 5 Up to 50% Shortage** -- A 50% or greater reduction in water usage is to meet the immediate needs of customers. Water shortage is critical. 50% per-person water use reduction. CVWD Ord No. Phases 1a through 6 prohibitions on certain water uses in-effect. The use of potable for any non-essential outdoor use is prohibited. Only essential uses of potable water are uses necessary for the health, sanitation, fire protection or safety of the consumer or public. **Shortage Level 6 Greater than 50% Shortage** – 7 CCF allocation. Surcharge 4 times the basic rate. 50% per-person water use reduction. CVWD Ord No. Phases 1a through 6 prohibitions on certain water uses in-effect. Augment supply with additional supply from CLAWA. The use of potable for any non-essential use is prohibited. In addition to these incremental stages, the Utility should prepare for a catastrophic interruption of water supplies. A catastrophic event that constitutes a proclamation of a water shortage would be any event, either natural or manmade, that causes a severe water supply interruption, synonymous with or with greater severity than the "Water Warning" water supply shortage condition outlined above.	

AP 9 – Water Supply Interruption		
III. Monitoring	Communication of water supply interruption stages should be handled according to the identified public notification procedures. Press releases should also be handled according to the identified utility procedures.	*See ERP Communication Section.* *See ERP Appendix D for Press Releases.*
IV. Recovery and Return to Safety	*Alternative water supply options have been identified in the utility emergency response plan (ERP). In the event of a catastrophic, immediate need, it is likely these will be utilized. This includes information on local interconnections with neighboring sources, area water haulers, temporary storage options, etc.* *If there have been lines with no water or negative pressures, a precautionary boil notice should be issued by the utility until line tests on two consecutive days show the lines to be safe. Chlorine residuals should be increased temporarily.* *The water system may have to valve off portions of the distribution system until above ground storage tanks are refilled. Valved off areas have the potential for external contamination to enter the system through leaking joints or cracked pipe. Before placing a valved off area back in service, the system should issue a precautionary boil notice, increase the chlorine residual throughout the system and obtain safe bacteriological samples from representative areas of the system on two consecutive days. The precautionary boil notice may be lifted once the required safe samples are obtained.* *The system should be repressurized slowly to avoid water hammer and the potential for damage to the lines.* *Air should be bled from lines as they refill since entrapped air can impede flows and may cause line damage.*	*See ERP Alternative Water Sources, Section Alternative Source Water Options, and Interconnected Utilities.* *See boil notice release Appendix D, Press Releases.* *See boil notice release* *Appendix D, Press Releases.*
V. Report of Findings	In addition to completing the appropriate filings with local authorities and agencies, it is recommended that the Utility assemble the relevant personnel to review the effectiveness of the action plan and reinforce lessons learned in the process.	
VI. AP-9 Revision Dates		

AP 10A – Bomb Threat (Telephone / In Person)		
AP Summary:	This Action Plan applies to the receipt of a bomb threat via telephone or in person. It is important to develop this plan in counsel with the local police and the local fire department services.	
Initiation and Notification:	Initiate this AP as soon as the bomb threat is received As soon as possible, notify: • 911 • WUERM The WUERM should then notify others as appropriate. Examples include: • Local Fire Department • Local Police Department • FBI • ATF	*Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Communication Section of the ERP.*
Equipment Identified:	**Equipment** **N/A** **Location** N/A	
Specific Activities:		
I. Assess the Problem	As a rule, all bomb threats should be considered credible until proven otherwise.	*Due to the diversity of facilities, each utility is encouraged to undertake an audit of their own facilities and consult with local emergency services such as fire and police while creating their evacuation plan. If it is not possible during the creation, then certainly consult before instituting the plan.*

AP 10A – Bomb Threat (Telephone / In Person)

II. Isolate and Fix the Problem	**Threat received via Telephone** 1. Remain Calm 2. If possible, record the message 3. Fill out **Bomb Threat Checklist** while performing the following: a. Listen b. Be Calm and Courteous c. Keep the caller on the line as long as possible d. Ask him/her to repeat the message e. Record every word spoken by the person f. Do not speak to anyone unless directed to do so g. **WHEN** caller hangs up, **THEN** implement **CVWD** policy to either hang up or not hang up the phone. 4. Notify the WUERM if not already done 5. Call the local police (911 or the emergency number for your area) and report the threat immediately. 6. Implement the **CVWD** policy on searching for the bomb. 7. Implement the CVWD policy evacuation. 8. **IF** evacuating building, **THEN** Take the **Bomb Threat Checklist** with you.	*It is always desirable that more than one person listens in on the call. To do this, have a pre-established signaling system in place to engage another listener if possible.* *Not hanging up the phone may be useful to law enforcement authorities in tracing the call. Hanging up and dialing *57 (where available) may allow a trace of the call. Consult with [UTILITY ABBREVIATION] management and local law enforcement.* *Develop a plan for conducting a bomb search. Establish time considerations in the plan commensurate with utility size and resources. For example, if time until detonation is less than ½ hour, immediate evacuation may be advisable. If greater than ½ hour a search should be conducted. Consult with the local police, local fire department, or other local authority to determine who will conduct the search. In most cases, because of their familiarity with the facility, the search is best conducted by utility personnel, however this requires that they be trained properly in search techniques. The police or fire department may be available to assist in the training or be able to provide advice as to who can provide the training.*
II. Isolate and Fix the Problem	• Make a quick visual sweep of your area for any unusual items and proceed to a designated gathering area sufficiently located away from the building. • **Direct any media questions to the Public Information Officer, PIO.** • **If a bomb is found note:**	*Let the trained bomb technician determine what is or is not a bomb.* *Note that a bomber wishing to cause personal injuries could place a bomb near an exit normally used*

AP 10A – Bomb Threat (Telephone / In Person)		
	• Exact location of the object • Size of object • Type of container or wrappings and marking on package • Any sound coming from object **Threat received in person:** 1. Cooperate with the individual or group. 2. Try to get the attention of a co-worker. 3. Co-workers call 911. 4. Co-worker call WUERM 5. Create a description of the adversary using a **Suspect Description Form. See ERP Appendix F.** 6. Direct any media questions to the Public Information Officer, PIO.	*to evacuate and then call in the threat.*
III. Monitoring	During a search of the building, rapid two-way communication is essential. 1. Use existing installed telephones. 2. Alert medical personnel to stand by in the event of an accident caused by the explosion of the devise. 3. Alert fire department to stand by. **In event of an explosion:** 1. Get out of the building as quickly as calmly as possible. 2. **IF** items are falling from bookshelves or the ceiling, **THEN** get under a sturdy table or desk until the situation has stabilized enough for your safe passage. 3. Ensure your own safety before trying to help others.	***DO NOT USE RADIOS OR OTHER WIRELESS DEVICES DURING A SEARCH****. The radio transmission energy can cause premature detonation of an electric initiator (blasting cap).*
IV. Recovery and Return to Safety	**IF** evacuated, **THEN** do not return to the building until it is determined safe by appropriate authorities.	

AP 10A – Bomb Threat (Telephone / In Person)		
V. Report of Findings	Debrief after every bomb threat response to improve procedures.	*The Utility Security Director should file an internal report for the Utility's files and also provide information as requested to Local Law Enforcement and other outside agencies*
VI. AP 10A Revision Dates		

AP 10B – Bomb Threat (Suspicious Package / Letter)		
AP Summary:	This Action Plan applies to the receipt of a suspicious package / letter, or a bomb found at the utility. It is important to develop this plan in counsel with your local police and local fire department.	
Initiation and Notification:	Initiate this AP as soon as a suspicious package or letter has been discovered As soon as possible, notify: • 911 • WUERM The WUERM should then notify others as appropriate. Examples include: • Local Fire Department • Local Police Department • FBI • ATF	*Notification phone numbers can be obtained from the Organization Contact List in the Appendix C as well as from Communication Section of the ERP.*
Equipment Identified:	None	
Specific Activities		
I. Assess the Problem	Determining if a package is suspicious involves a careful evaluation. Some points to consider are: • Incorrect address and or titles • Titles but no names • Visual distractions • Possess a foreign postmark, airmail, or special delivery markings (Personal, Confidential, Special Delivery, Open By Addressee Only) • Return address irregularities, including no address, one not matching the postmark, or not familiar • Badly typed or poorly written addresses • A package not expected by the addressee • Deficient or excessive postage, unusual stamps • Packages within packages	*Most bombs are homemade and can look like nearly anything. Suspect anything that looks unusual.* *Although the presence of one of these conditions does not mean, for certain, that there is a bomb in the package, check further if any of these indicators are present. Find out if the recipient is expecting the package, recognizes the return address, and if the package is the right size for the item expected. Verify the return address. If any of these comes up a "no," investigate further and alert WUERM, and police.*

AP 10B – Bomb Threat

(Suspicious Package / Letter)

I. Assess the Problem	• Be from a company/person you do not recognize • Be hand delivered by a person other than normal delivery persons, especially by a person using a non-delivery type vehicle • Foul Odor • Left behind by someone you have not seen before • Left behind by someone known to carry a grudge against you, your facility, someone at your facility • Oily, stained, or crystallization on the outside • Rigid or bulky • Odd shaped, unevenly-weighted, lopsided, or lumpy • Possess protruding wires or tinfoil • Over-wrapped with excessive securing material such as tape or string • Feel (See notes section to the right)	***DO NOT OPEN SUSPICIOUS PACKAGES and / or LETTERS.*** *Packages within packages may be an attempt to mask or hide the actual explosive device* *If the bomb contains nitrogen based fertilizers, there will be an odor that people can smell. The next time you fertilize your lawn or garden, smell the fertilizer. This is similar to the odor of nitrogen based bomb components.* *Chemicals used may "sweat" that in turn stain the package wrapper.* *Letters have a normal 'feel'. Those that contain devices may not 'feel' right as the presence of plastic or metallic components may alter the normal' feel' of a letter.*
II. Isolate and Fix the Problem	1. Remain Calm. 2. Do not touch or move package. 3. Notify the WUERM if not already done. 4. While waiting for instructions, clear the area around the object and try to determine ownership. (Did anyone see who left this here?)	*Let the trained bomb technician determine what is or is not a bomb.*
II. Isolate and Fix the Problem	5. Notify police. 6. Implement the **CVWD** policy on evacuation. 7. Direct any media questions to the Public Information Officer, PIO. **If a bomb is found note:** • Exact location of the object • Size of object • Type of container or wrappings and marking on package	***DO NOT USE RADIOS OR OTHER WIRELESS DEVICES NEAR A SUSPECTED BOMB****. The radio transmission energy can cause premature detonation of an electric initiator (blasting cap)*

AP 10B – Bomb Threat (Suspicious Package / Letter)		
	• Any sound coming from object	
III. Monitoring	**In event of an explosion** • Get out of the building as quickly as calmly as possible. • **IF** items are falling from bookshelves or the ceiling, **THEN** get under a sturdy table or desk until the situation has stabilized enough for your safe passage. • Ensure your own safety before trying to help others.	
IV. Recovery and Return to Safety	**IF** evacuated, **THEN** do not return to the building until it is determined safe by appropriate authorities.	
V. Report of Findings	Debrief after every bomb threat response to improve procedures.	*The Utility Security Director should file an internal report for the Utility's files and also provide information as requested to Local Law Enforcement and other outside agencies*
VI. AP 10B Revision Dates		

AP 10C – Bomb Threat (Written Threat Received)		
AP Summary:	This Action Plan applies to the receipt of a written bomb threat. It is important to develop this plan in counsel with your local police and local fire department.	
Initiation and Notification:	Initiate this AP as soon as a written threat has been discovered As soon as possible, notify: • 911 • WUERM The WUERM should then notify others as appropriate. Examples include: • Local Fire Department • Local Police Department • FBI • ATF	*Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Communication Section of the ERP.*
Equipment Identified:	Equipment Location	
Specific Activities		
I. Assess the Problem	As a rule, all bomb threats should be considered credible until proven otherwise.	
II. Isolate and Fix the Problem	**Written Threats:** 1. Remain Calm. 2. Save all materials, including any envelope or container. 3. Once recognized as a bomb threat, avoid further handling. 4. Leave the message where found.	*Every effort must be made to retain evidence such as fingerprints, handwriting, or typewriting, paper, and postal marks. These will prove essential in tracing the threat and identifying the writer.* *Let a trained bomb technician determine what is or is not a bomb. Develop a plan for conducting a bomb search. Establish time considerations in the plan commensurate with utility size and resources. For example, if time until detonation is less than ½ hour, immediate evacuation may be advisable. If greater than ½ hour a search should be*

AP 10C – Bomb Threat (Written Threat Received)		
	5. Do not alarm others; however contact WUERM immediately. 6. Contact the local police. 7. Implement the **CVWD** policy on searching for the bomb. 8. Implement the **CVWD** policy on evacuation. 9. Make a quick visual sweep of your area for any unusual items and proceed to a designated gathering area sufficiently located away from the building. 10. Direct any media questions to the Public Information Officer, PIO.	*conducted. Consult with the police, fire department, or other local authority to determine who will conduct the search. In most cases, because of their familiarity with the facility, the search is best conducted by utility personnel, however this requires that they be trained properly in search techniques. The police or fire department may be available to assist in the training or be able to advise as to who can provide the training.*
	If a bomb is found note: • Exact location of the object • Size of object • Type of container or wrappings and marking on package • Any sound coming from object	*Note that a bomber wishing to cause personal injuries could place a bomb near an exit normally used to evacuate and then call in the threat.* *Due to the diversity of facilities, each utility is encouraged to undertake an audit of their own facilities and consult with local emergency services such as fire and police while creating their evacuation plan. If it is not possible during the creation, then certainly consult before instituting the plan.*
III. Monitoring	During a search of the building, rapid two-way communication is essential. • Use existing installed telephones. • Alert medical personnel to stand by in the event of an accident caused by the explosion of the devise. • Alert fire department to stand by. **In event of an explosion** 1. Get out of the building as quickly as calmly as possible. 2. **IF** items are falling from bookshelves or the ceiling, **THEN**	***DO NOT USE RADIOS OR OTHER WIRELESS DEVICES DURING A SEARCH****. The radio transmission energy can cause premature detonation of an electric initiator (blasting cap)*

AP 10C – Bomb Threat (Written Threat Received)		
	get under a sturdy table or desk until the situation has stabilized enough for your safe passage. 3. Ensure your own safety before trying to help others.	
IV. Recovery and Return to Safety	**IF** evacuated, **THEN** do not return to the building until it is determined safe by appropriate authorities.	
V. Report of Findings	Debrief after every bomb threat response to improve procedures.	*The Utility Security Director should file an internal report for the Utility's files and also provide information as requested to Local Law Enforcement and other outside agencies*
VI. AP 10C Revision Dates		

AP 11 – Wildfire

AP Summary:	This Action Plan applies to wildfire events. In general, these events occur with little lead times, making it difficult to take proactive measures. Response and recovery can be time consuming during such events, and they can involve loss of electrical power supply, damage of structures and equipment, disruptions of service, and injuries to utility personnel.	
Initiation and Notification:	Initiate this AP as soon as a threat has been discovered. As soon as possible, notify: • 911 • WUERM The WUERM should then notify others as appropriate. Examples include: • Local Fire Department • Local Police Department	*Notification phone numbers can be obtained from the Organization Contact List in the Appendix C as well as from Communication Section of the ERP.*
Equipment Identified:	Equipment Location Wildfire fighting activities to be done by Fire Department. CVWD can utilize dump truck, back hoes, and water truck for defense actions. Equipment is located at main facility.	
Specific Activities	In general, the WUERM will organize an assessment team to undertake the following activities: • Inspect all structures for obvious cracks and damage. • Assess condition of all electrical power feeds and switchgear.	

AP 11 – Wildfire		
	• If SCADA is working, immediately review system for all types of malfunctions, including telemetry, pressure in the distribution system, and operation of pumps and other equipment. • If buildings have any sign of damage, such as cracked walls, broken windows, downed power lines, do not enter, but wait for trained personnel. • If buildings appear safe, cautiously inspect condition of interiors for damaged equipment, leaks, chemical spills, etc. • Communicate all findings via radio to Emergency Operations Center (EOC) or WUERM, as appropriate. Activate personnel accountability network to check for injury of staff.	
I. Assess the Problem	In general, the WUERM will organize an assessment team to undertake the following activities: • Inspect all structures for obvious damage. • Assess condition of all electrical power feeds and switchgear. • If SCADA is working, immediately review system for all types of malfunctions, including telemetry, pressure in the distribution system, and operation of pumps and other equipment. • If buildings have any sign of damage, do not enter, but wait for trained personnel. • If buildings appear safe, cautiously inspect condition of	

AP 11 – Wildfire		
	interiors for damaged equipment, leaks, chemical spills, etc. • Communicate all findings via radio to Emergency Operations Center (EOC) or WUERM, as appropriate. • Activate personnel accountability network to check for injury of staff. Wildfires can cause significant power outages (due to impact on outside generation and transmission line) and damage to structures After a major wildfire, power might be interrupted for an extended period of time over the entire operations area. In this instance, power restoration will most probably be slow and, depending upon the infrastructure damage, localized. Some isolated areas could take considerably longer for power restoration than others.	
II. Isolate and Fix the Problem	• Activate Emergency Operations Center (EOC). • Monitor track of wildfire. • Release nonessential personnel, as warranted. • Assemble essential personnel and designate duties. • Mobilize debris removal equipment, as warranted. • Man remote stations essential to operations as conditions are safe to do so.	
III. Monitoring	At all times, personnel should observe the following general steps:	

AP 11 – Wildfire		
	• Stay calm and await instructions from the designated official. • Keep away from downed electric equipment including transmission lines. • Provide assistance and/or call for medical help for injured employees as needed. • If major structural damage has occurred, order a complete evacuation. The building should be inspected by trained personnel for damage before reentry. • Monitor the radio for instructions. • Account for all personnel and provide emergency care if needed. • Notify customers of any water advisories and collaborate with local media to distribute message.	
IV. Recovery and Return to Safety	**Recover steps include:** Deploy emergency operations and cleanup crews. Identify key access points and roads for employees to enter the utility and critical infrastructure. Coordinate the need for debris cleaning with local emergency management.	
V. Report of Findings	Debrief after every wildfire response to improve procedures. Document all damage assessments, mutual aid requests, emergency repair work, equipment used, purchases made, staff hours worked, and contractors used during the response.	*Provide information as requested to Local Fire, Law Enforcement, and other outside agencies.*

AP 11 – Wildfire	
VI. AP 10C Revision Dates	

Appendix F Incident Reports and Forms

Written Threat Report Form

INSTRUCTIONS

The purpose of this form is to summarize significant information from a written threat received by a drinking water utility. This form should be completed by the WUERM or an individual designated by incident command to evaluate the written threat. The summary information provided in this form is intended to support the threat evaluation process; however, the completed form is not a substitute for the complete written threat, which may contain additional, significant details.

The written threat itself (e.g., the note, letter, e-mail message, etc.) may be considered evidence and thus should be minimally handled (or not handled at all) and placed into a clean plastic bag to preserve any forensic evidence.

Remember, tampering with a drinking water system is a crime under the SDWA Amendments!

SAFETY

A suspicious letter or package could pose a threat in and of itself, so caution should be exercised if such packages are received. The US Postal Service has issued guidance when dealing with suspicious packages (http://www.usps.com/news/2001/press/pr01_1022gsa.htm).

THREAT NOTIFICATION

Name of person receiving the written threat: _____

Person(s) to whom threat was addressed: _____

Date threat received: _____ **Time threat received:** _____

How was the written threat received?

☐ US Postal service ☐ Delivery service ☐ Courier
☐ Fax ☐ E-mail ☐ Hand delivered
☐ Other _____

If mailed, is the return address listed? ☐ Yes ☐ No

_____

If mailed, what is the date and location of the postmark? _____

If delivered, what was the service used (list any tracking numbers)? _____

If Faxed, what is the number of the sending fax? _____

If E-mailed, what is the e-mail address of sender? _____

If hand-delivered, who delivered the message? _____

DETAILS OF THREAT

Has the water already been contaminated? ☐ Yes ☐ No

Date and time of contaminant introduction known? ☐ Yes ☐ No

Date and time if known: _____

Location of contaminant introduction known? ☐ Yes ☐ No

Site Name: _____

Type of facility

☐ Source water ☐ Treatment plant ☐ Pump station
☐ Ground storage tank ☐ Elevated storage tank ☐ Finished water reservoir
☐ Distribution main ☐ Hydrant ☐ Service connection
☐ Other _____

Address: _____

_____

Additional Site Information: _____

_____

Name or type of contaminant known? ☐ Yes ☐ No

Type of contaminant
☐ Chemical ☐ Biological ☐ Radiological
Specific contaminant name/description: _____

Mode of contaminant introduction known? ☐ Yes ☐ No
Method of addition: ☐ Single dose ☐ Over time ☐ Other _____
Amount of material: _____
Additional Information: _____

Motive for contamination known? ☐ Yes ☐ No
☐ Retaliation/revenge ☐ Political cause ☐ Religious doctrine
☐ Other _____
Describe motivation: _____

NOTE CHARACTERISITCS

Perpetrator Information:
Stated name: _____
Affiliation: _____
Phone number: _____
Location/address: _____

Condition of paper/envelop:
☐ Marked personal ☐ Marked confidential ☐ Properly addressed
☐ Neatly typed or written ☐ Clean ☐ Corrected or marked-up
☐ Crumpled or wadded up ☐ Soiled/stained ☐ Torn/tattered
☐ Other: _____

How was the note prepared?
☐ Handwritten in print ☐ Handwritten in script ☐ Computer typed
☐ Machine typed ☐ Spliced (e.g., from other typed material)
☐ Other: _____
If handwritten, does writing look familiar? ☐ Yes ☐ No

Language:
☐ Clear English ☐ Poor English
☐ Another language: _____
☐ Mixed languages: _____

Writing Style
☐ Educated ☐ Proper grammar ☐ Logical
☐ Uneducated ☐ Poor grammar/spelling ☐ Incoherent
☐ Use of slang ☐ Obscene
☐ Other: _____

Writing Tone
☐ Clear ☐ Direct ☐ Sincere
☐ Condescending ☐ Accusatory ☐ Angry
☐ Agitated ☐ Nervous ☐ Irrational
☐ Other: _____

SIGNOFF

Name of individual who received the threat:
Print name _____
Signature _____ Date/Time: _____
Name of person completing form (if different from written threat recipient):
Print name _____
Signature _____ Date/Time: _____

Source: EPA Response Protocol Toolbox Module 2, Section 8.6 – Interim Final December 2003

IT Incident Response and Reporting Checklist

Date_____ Time_____

Status:

- ☐ Site Under Attack
- ☐ Past Incident
- ☐ Repeated Incidents
- ☐ Unresolved

Contact Information:

Name _____
Title _____
Utility _____
Direct-dial phone _____
E-mail _____
Location / Site involved _____
Street Address _____
City _____
State/ZIP _____

1. What is the nature of the emergency? (Check all that apply)
   - ☐ Denial of Service attack
   - ☐ Unauthorized electronic monitoring
   - ☐ Network intrusion
   - ☐ Insider attack
   - ☐ Probe/scan
   - ☐ Malicious code (virus, Trojan horse, worm)
   - ☐ Website defacement
   - ☐ Other (explain)
2. Is there just one, or more than one, incident involved simultaneously?
3. Is this a single or multi-site incident?
4. What is the extent of penetration / infection?
5. Estimate the duration of attack
6. What is the entry point of the incident (network, the phone line, etc)?
7. What resources will be required to deal with this incident? (A Computer Emergency Response Team with a forensic expert might be needed immediately to analyze a major incident versus simply disconnecting the compromised equipment from the Internet for later analysis)
8. What is the source of the attack?
9. What is the target of the attack?
10. Impact of attack
11. Has there been a loss or compromise of business data?
12. What type of data has already been compromised or is at risk?
13. How critical is this data?

14. Affect on customers (Customers might be sensitive, based on the intensity level of the intellectual property loss. It could be a violation of privacy legislation versus a serious theft of software property, critically affecting a customer's enterprise-level business)
15. Estimate system downtime
16. Document damage to systems
17. Estimate financial loss
18. Has there been damage to the integrity or delivery of water or services?
19. Describe
20. Other utility systems affected
21. Severity of attack (include financial loss)

☐ Low ☐ Medium ☐ High

22. Did the attacker gain root, administrative or system access?
23. How was the incident detected?
    - ☐ Intrusion detection system or audit logs
    - ☐ External complaint
    - ☐ User report
    - ☐ Other
24. What are the known symptoms?
25. What utility areas are affected?
26. What systems are affected?

    Gather as much information as possible about the systems, including suspected systems. For example:

    - ☐ Operating system
    - ☐ Platform
    - ☐ Applications
    - ☐ IP addresses
    - ☐ Associated or suspected user IDs
    - ☐ Most recent changes applied
    - ☐ Other related items
27. Are the backups of the perceived affected systems available (provide all of the information regarding online, onsite, or offsite backups)?

See www.cert.org/tech_tips/intruder_detection_checklist.html for more information on detecting an intruder.

Maintaining Crime Scene Integrity*

Security breaches and suspicious activity need to be evaluated to determine if the actions are a result of "normal" activity, such as a construction crew working in the area, or the result of activity that could result in an intentional threat to the safety or security of the facility and it operations.

- As soon as **you** recognize that the threat is/was intentional and particularly if the actions of the threatening individuals are suspected to have been successful, **you** must notify facility management (Security Director/General Manager).
- The (**[SD]/[GM]**) should immediately notify the local law enforcement agency responsible for criminal investigation at the facility as soon as they have verified a credible threat.
- **No personnel** from CVWD facility should enter the area where any possible criminal activity might have occurred so as not to disturb the area. All signs of inappropriate entrance to the facility and any physical activity of the suspects must be available for evaluation by law enforcement without any disturbance.
- **CVWD facility staff** and/or **law enforcement** may collect water samples prior to the collection of physical evidence.
- **CVWD facility staff** should collect samples outside of the boundaries of the suspected crime scene, if possible, to avoid concerns about the integrity of the crime scene.
- The **CVWD facility [GM]** should pre-designate a qualified laboratory that can assist in analysis, if the sample is suspected to contain water that has been intentionally contaminated, to insure chain of evidence custody. Law enforcement may require the collection of an additional sample set to be analyzed by their designated lab.
- **CVWD facility staff** should be aware of possible physical evidence of contamination that might include discarded PPE, equipment (such as pumps and hoses), or containers with residual material. Special care should be taken by facility personnel to avoid moving or disturbing any potential physical evidence.
- **CVWD facility staff** should notify [SD]/[GM] of any obvious physical evidence of contamination.
- **CVWD facility staff** should not handle any physical evidence except at the direction of the appropriate law enforcement agency.
- Any photographs or videos taken by **CVWD facility staff** should be reported to law enforcement for proper handling to ensure integrity of the evidence.

The **CVWD [SD]/[GM]** if appropriate, should clearly designate the area of suspected criminal activity to assure that facility personnel do not inadvertency enter the area and disturb evidence.

The **CVWD [SD]/[GM]** can instruct security personnel to stand by and/or lock doors/gates, and/or string tape or rope to restrict entrance, as appropriate.

The **[SD]/[GM]** should balance the needs of both the public health concerns and the concerns of possible criminal activity in their decisions to protect the crime scene.

** Adapted from EPA Response Protocol Toolbox: Planning for and Responding to Drinking Water Contamination Threats and Incidents Module 3: Site Characterization and Sampling Guide Section 3.6.*

Phone Threat Report Form

INSTRUCTIONS

This form is intended to be used by utility staff that regularly answer phone calls from the public (e.g., call center operators). The purpose of this form is to help these staff capturer as much information from a threatening phone call while the caller is on the line. It is important that the operator keep the caller on the line as long as possible in order to collect additional information. Since this form will be used during the call, it is important that operators become familiar with the content of the form. The sections of the form are organized with the information that should be collected during the call at the front of the form (i.e., Basic Call Information and Details of Threat) and information that can be completed immediately following the call at the end of the form (i.e., the description of the caller). The information collected on this form will be critical to the threat evaluation process.

Remember, tampering with a drinking water system is a crime under the SDWA Amendments

THREAT NOTIFICATION

Name of person receiving the call: _____

Date phone call received: ___ Time phone call received: _____

Time phone call ended: _____ **Duration of phone call:** _____

Originating number: _____ **Originating name:** _____

*If the number/name is not displayed on the caller ID, press *57 (or call trace) at the end of the call and inform law enforcement that the phone company may have trace information.*

Is the connection clear? ☐ Yes ☐ No

Could call be from a wireless phone? ☐ Yes ☐ No

DETAILS OF THREAT

Has the water already been contaminated? ☐ Yes ☐ No

Date and time of contaminant introduction known? ☐ Yes ☐ No

Date and time if known: _____

Location of contaminant introduction known? ☐ Yes ☐ No

Site Name: _____

Type of facility

☐ Source water ☐ Treatment plant ☐ Pump station

☐ Ground storage tank ☐ Elevated storage tank ☐ Finished water reservoir

☐ Distribution main ☐ Hydrant ☐ Service connection

☐ Other _____

Address: _____

_____

Additional Site Information: _____

_____

Name or type of contaminant known? ☐ Yes ☐ No

Type of contaminant

☐ Chemical ☐ Biological ☐ Radiological

Specific contaminant name/description: _____

_____

Mode of contaminant introduction known? ☐ Yes ☐ No

Method of addition: ☐ Single dose ☐ Over time ☐ Other _____

Amount of material: _____

Additional Information: _____

_____

Motive for contamination known? ☐ Yes ☐ No

☐ Retaliation/revenge ☐ Political cause ☐ Religious doctrine

☐ Other _____

Describe motivation: _____

CALLER INFORMATION

Basic Information:

Stated name: _____

Affiliation: _____

Phone number: _____

Location/address: _____

Caller's Voice:

Did the voice sound disguised or altered? ☐ Yes ☐ No

Did the call sound like a recording? ☐ Yes ☐ No

Did the voice sound? ☐ Male / ☐ Female ☐ Young / ☐ Old

Did the voice sound familiar? ☐ Yes ☐ No

If 'Yes,' who did it sound like? _____

Did the caller have an accent? ☐ Yes ☐ No

If 'Yes,' what nationality? _____

How did the caller sound or speak?

☐ Educated ☐ Well spoken ☐ Illiterate

☐ Irrational ☐ Obscene ☐ Incoherent

☐ Reading a script ☐ Other _____

What was the caller's tone of voice?

☐ Calm	☐ Angry	☐ Lisping	☐ Stuttering/broken
☐ Excited	☐ Nervous	☐ Sincere	☐ Insincere
☐ Slow	☐ Rapid	☐ Normal	☐ Slurred
☐ Soft	☐ Loud	☐ Nasal	☐ Clearing throat
☐ Laughing	☐ Crying	☐ Clear	☐ Deep breathing
☐ Deep	☐ High	☐ Raspy	☐ Cracking

☐ Other _____

Were there background noises coming from the caller's end?

☐ Silence

☐ Voices describe _____

☐ Children describe _____

☐ Animals describe _____

☐ Factory sounds describe _____

☐ Office sounds describe _____

☐ Music describe _____

☐ Traffic/street sounds describe _____

☐ Airplanes describe _____

☐ Trains describe _____

☐ Ships or large boats describe _____

☐ Other: _____

SIGNOFF

Name of call recipient:

Print name _____

Signature _____ Date/Time: _____

Name of person completing form (if different from call recipient):

Print name _____

Signature _____ Date/Time: _____

Source: EPA Response Protocol Toolbox Module 2, Section 8.5 – Interim Final December 2003

Public Health Information Report Form Instructions

The purpose of this form is to summarize significant information about a public health episode that could be linked to contaminated water. This form should be completed by the WUERM or an individual designated by incident command. The information compiled in this form is intended to support the threat evaluation process. In the case of a threat warning due to a report from public health, it is likely that the public health agency will assume incident command during the investigation. The drinking water utility will likely play a support role during the investigation, specifically to help determine whether or not water might be the cause.

PUBLIC HEALTH NOTIFICATION

Date and Time of notification: _____

Name of person who received the notification: _____

Contact information for individual providing the notification

Full Name: _____

Title: _____

Organization: _____

Address: _____

Day-time phone: _____

Evening phone: _____

Fax Number: _____

E-mail address: _____

Why is this person contacting the drinking water utility? _____

_____

Has the state or local public health agency been notified? ☐ Yes ☐ No

If "No," the appropriate public health official should be immediately notified.

DESCRIPTION OF PUBLIC HEALTH EPISODE

Nature of public health episode:

☐ Unusual disease (mild) ☐ Unusual disease (severe) ☐ Death

☐ Other: _____

Symptoms:

☐ Diarrhea ☐ Vomiting/nausea ☐ Flu-like symptoms

☐ Fever ☐ Headache ☐ Breathing difficulty

☐ Other: _____

Describe symptoms: _____

_____

Causative Agent: ☐ Known ☐ Suspected ☐ Unknown

If known or suspected, provide additional detail below

☐ Chemical ☐ Biological ☐ Radiological

Describe _____

_____

Estimate of time between exposure and onset of symptoms: _____

Exposed Individuals:

Location where exposure is thought to have occurred

☐ Residence ☐ Work ☐ School

☐ Restaurant ☐ Shopping mall ☐ Social gathering

☐ Other: _____

Additional notes on location of exposure: _____

_____

Collect addresses for specific locations where exposure is thought to have occurred.

Is the pattern of exposure clustered in a specific area? ☐ Yes ☐ No

Extent of area

☐ Single building ☐ Complex (several buildings) ☐ City block

☐ Neighborhood ☐ Cluster of neighborhoods ☐ Large section of city

☐ Other: _____

Additional notes on extent of area: _____

_____

Do the exposed individuals represent a disproportionate number of:

☐ Immune compromised ☐ Elderly ☐ Children

☐ Infants ☐ Pregnant women ☐ Women

☐ Other: _____

☐ None, no specific groups dominate the makeup of exposed individuals

EVALUATION OF LINK TO WATER

Are the symptoms consistent with typical waterborne diseases, such as gastrointestinal disease, vomiting, or diarrhea? ☐ Yes ☐ No

Does the area of exposure coincide with a specific area of the system, such as a pressure zone or area feed by a specific plant? ☐ Yes ☐ No

Were there any consumer complaints within the affected area? ☐ Yes ☐ No

Were there any unusual water quality data within the affected area? ☐ Yes ☐ No

Were there any process upsets or operational changes? ☐ Yes ☐ No

Was there any construction/maintenance within the affected area? ☐ Yes ☐ No

Were there any security incidents within the affected area? ☐ Yes ☐ No

---

SIGNOFF

Name of person completing form:

Print name _____

Signature _____ Date/Time: _____

Source: EPA Response Protocol Toolbox Module 2, Section 8.8 – Interim Final December 2003

Security Incident Report Form

INSTRUCTIONS

The purpose of this form is to help organize information about a security incident, typically a security breach, which may be related to a water contamination threat. The individual who discovered the security incident, such as a security supervisor, the WUERM, or another designated individual may complete this form. This form is intended to summarize information about a security breach that may be relevant to the threat evaluation process. This form should be completed for each location where a security incident was discovered.

DISCOVERY OF SECURITY INCIDENT

Date/Time security incident discovered: _____

Name of person who discovered security incident: _____

Mode of discovery:

☐ Alarm (building) ☐ Alarm (gate/fence) ☐ Alarm (access hatch)
☐ Video surveillance ☐ Utility staff discovery ☐ Citizen discovery
☐ Suspect confession ☐ Law enforcement discovery
☐ Other _____

Did anyone observe the security incident as it occurred? ☐ Yes ☐ No

If "Yes", complete the 'Witness Account Report Form'

SITE DESCRIPTION

Site Name: _____

Type of facility

☐ Source water ☐ Treatment plant ☐ Pump station
☐ Ground storage tank ☐ Elevated storage tank ☐ Finished water reservoir
☐ Distribution main ☐ Hydrant ☐ Service connection
☐ Other _____

Address: _____

_____

Additional Site Information: _____

_____

BACKGROUND INFORMATION

Have the following "normal activities" been investigated as potential causes of the security incident?

☐ Alarms with known and harmless causes ☐ Utility staff inspections
☐ Routine water quality sampling ☐ Construction or maintenance
☐ Contractor activity ☐ Other _____

Was this site recently visited *prior* to the security incident? ☐ Yes ☐ No

If "Yes," provide additional detail below

Date and time of previous visit: _____

Name of individual who visited the site: _____

Additional Information: _____

_____

Has *this location* been the site of previous security incidents? ☐ Yes ☐ No

If "Yes," provide additional detail below

Date and time of most recent security incident: _____

Description of incident: _____

_____

_____

What were the results of the threat evaluation for this incident?

☐ 'Possible' ☐ 'Credible' ☐ 'Confirmed'

Have security incidents occurred at *other locations* recently? ☐ Yes ☐ No

If "Yes", complete additional 'Security Incident Reports' (Appendix 8.3) for each site

Name of 1st additional site: _____

Name of 2nd additional site: _____

Name of 3rd additional site: _____

SECURITY INCIDENT DETAILS

Was there an alarm(s) associated with the security incident? ☐ Yes ☐ No

If "Yes," provide additional detail below

Are there sequential alarms (e.g., alarm on a gate and a hatch)? ☐ Yes ☐ No

Date and time of alarm(s): _____

Describe alarm(s): _____

_____

Is video surveillance available from the site of the security incident? ☐ Yes ☐ No

If "Yes," provide additional detail below

Date and time of video surveillance: _____

Describe surveillance: _____

_____

_____

_____

Unusual equipment found at the site and time of discovery of the security incident:

☐ Discarded PPE (e.g., gloves, masks) ☐ Empty containers (e.g., bottles, drums)
☐ Tools (e.g., wrenches, bolt cutters) ☐ Hardware (e.g., valves, pipe)
☐ Lab equipment (e.g., beakers, tubing) ☐ Pumps or hoses
☐ None ☐ Other _____

Describe equipment: _____

_____

_____

_____

Unusual vehicles found at the site and time of discovery of the security incident:

☐ Car/sedan ☐ SUV ☐ Pickup truck
☐ Flatbed truck ☐ Construction vehicle ☐ None
☐ Other _____

Describe vehicles (including make/model/year/color, license plate #, and logos or markings): ____

_____

_____

_____

_____

Signs of tampering at the site and time of discovery of the security incident:

☐ Cut locks/fences ☐ Open/damaged gates, doors, or windows
☐ Open/damaged access hatches ☐ Missing/damaged equipment
☐ Facility in disarray ☐ None
☐ Other _____

Are there signs of sequential intrusion (e.g., locks removed from a gate and hatch)? ☐ Yes ☐ No

Describe signs of tampering: _____

_____

_____

_____

Signs of hazard at the site and time of discovery of the security incident:

☐ Unexplained or unusual odors ☐ Unexplained dead animals
☐ Unexplained dead or stressed vegetation ☐ Unexplained liquids
☐ Unexplained clouds or vapors ☐ None
☐ Other _____

Describe signs of hazard: _____

_____

_____

SIGNOFF

Name of person responsible for documenting the security incident:

Print name _____

Signature _____ Date/Time: _____

Source: EPA Response Protocol Toolbox Module 2, Section 8.3 – Interim Final December 2003

SUSPECT DESCRIPTION FORM

GENERAL APPEARANCE

Gender:
Male
Female

Race:
☐ White
☐ Black
☐ Middle Eastern

☐ Hispanic
☐ Asian
☐ Native American

Other_____

Hair:
Color
Style
Texture
Sideburns

Eyes:
Color
Shape
Glasses (type)

Physical Characteristics:
Age
Height
Weight
Build

Distinguishing Marks (describe):
Scars
Tattoos
Gang Insignia

Other:
Left Handed / Right Handed

CLOTHING

Color/Type:

Layered Shirts/Blouse

Cap/Hat

Coat/Jacket

Tie

Pants

Shoes

Stockings

Gloves

Jewelry

Bag/Backpack
Purse/Briefcase

SUSPECT DEMEANOR

☐Apologetic
☐Calm
☐Belligerent
☐Angry
☐Threatening
☐Nervous
☐Confused

DISTINGUISHING TRAITS

Speech
Accent
Gait / Limp

FACIAL CHARACTERISTICS

Skin:
Color
Texture

Describe shape of:
Mouth
Lips
Ears
Cheeks
(full or sunken)
Nose
Neck
Eyes
Eyebrows

Presence of:
Adam's Apple
Chin clefts
Wrinkles

Hair:
Mustache
Beard
Other

Describe any:
Facial piercing
Ear piercing

WEAPON (describe if any)

☐ Handgun
☐ Long gun
☐ Knife

Direction of Escape

What did the suspect say?

VEHICLE

Color
Make
Model
Body Style
Damage / Rust
Antenna
Bumper Sticker
Wheel Covers

License Number_____

BOMB THREAT CHECKLIST

Be Calm and Courteous *Give a co-worker a signal to "listen in"*

Date: _____Time call started:
_____Time call ended:

Check call display for phone number (if available) _____

EXACT WORDING OF BOMB THREAT:

What can you tell me?

When is the bomb going to explode?

What kind of bomb is it?

Where is the bomb right now?

What does the bomb look like?

What will cause the bomb to explode?

Did you place the bomb?

Why?

What is your name?

REMARKS:

CALLER'S VOICE

☐ Male
☐ Female

☐ Old (Age?)____
☐ Young (Age?)____

☐ Calm
☐ Excited

☐ Soft
☐ Loud

☐ Angry
☐ Cracking Voice

☐ Laughter
☐ Crying

☐ Normal
☐ Disguised

☐ High pitched
☐ Deep

☐ Nasal
☐ Slurred

☐ Distinct
☐ Ragged

☐ Rapid
☐ Slow

☐ Raspy
☐ Stutter

☐ Lisp
☐ Heavy Breather

☐ Clearing Throat
☐ Intoxicated

☐ Pleasant
☐ Whisper

☐ Familiar (who?)_____

☐_Accent (type?) _____

FAMILIARITY WITH FACILITY

☐ Much
☐ Some
☐ None

BACKGROUND SOUNDS

☐ Street
☐ Party Sounds

☐ Office Noises
☐ Train

☐ Voices
☐ Airplane

☐ PA System
☐ Animals

☐ Local Music
☐ Static on line

☐ Long Distance
☐ Motors

☐ Bells
☐ Whistles

☐ Factory Machinery
☐ Crockery

☐ Household sounds
☐ Bedlam

___Chanting
___Other

Inform the caller that the building is occupied and the detonation of a bomb could result in death or serious injury to many innocent people.

BOMB THREAT LANGUAGE

- ☐ Well Spoken
- ☐ Incoherent

- ☐ Foul
- ☐ Irrational

- ☐ Taped
- ☐ Deliberate

- ☐ Abusive
- ☐ Righteous

- ☐ Message read by threat maker

Threat Evaluation Worksheet

INSTRUCTIONS

The purpose of this worksheet is to help organize information about a contamination threat warning that would be used during the Threat Evaluation Process. The individual responsible for conducting the Threat Evaluation (e.g., the WUERM) should complete this worksheet. The worksheet is generic to accommodate information from different types of threat warnings; thus, there will likely be information that is unavailable or not immediately available. Other forms in the Appendices are provided to augment the information in this worksheet.

THREAT WARNING INFORMATION

Date/Time threat warning discovered: _____

Name of person who discovered threat warning: _____

Type of threat warning:

☐ Security breach ☐ Witness account ☐ Phone threat
☐ Written threat ☐ Law enforcement ☐ Unusual water quality
☐ News media ☐ Consumer complaints ☐ Public health notification
☐ Other _____

Identity of the contaminant: ☐ Known ☐ Suspected ☐ Unknown

If known or suspected, provide additional detail below

☐ Chemical ☐ Biological ☐ Radiological

Describe _____

_____

Time of contamination: ☐ Known ☐ Estimated ☐ Unknown

If known or estimated, provide additional detail below

Date and time of contamination: _____

Additional Information: _____

_____

Mode of contamination: ☐ Known ☐ Suspected ☐ Unknown

If known or suspected, provide additional detail below

Method of addition: ☐ Single dose ☐ Over time ☐ Other _____

Amount of material: _____

Additional Information: _____

_____

Site of contamination: ☐ Known ☐ Suspected ☐ Unknown

If known or suspected, provide additional detail below

Number of sites: _____

Provide the following information for each site.

Site #1

Site Name: _____

Type of facility

☐ Source water ☐ Treatment plant ☐ Pump station
☐ Ground storage tank ☐ Elevated storage tank ☐ Finished water reservoir
☐ Distribution main ☐ Hydrant ☐ Service connection
☐ Other _____

Address: _____

_____

Additional Site Information: _____

_____

Site #2

Site Name: _____

Type of facility

☐ Source water ☐ Treatment plant ☐ Pump station
☐ Ground storage tank ☐ Elevated storage tank ☐ Finished water reservoir
☐ Distribution main ☐ Hydrant ☐ Service connection
☐ Other _____

Address: _____

Additional Site Information: _____

Site #3

Site Name: _____

Type of facility

☐ Source water ☐ Treatment plant ☐ Pump station
☐ Ground storage tank ☐ Elevated storage tank ☐ Finished water reservoir
☐ Distribution main ☐ Hydrant ☐ Service connection
☐ Other _____

Address: _____

Additional Site Information: _____

ADDITIONAL INFORMATION

Has there been a breach of security at the suspected site? ☐ Yes ☐ No
If "Yes", review the completed 'Security Incident Report'

Are there any witness accounts of the suspected incident? ☐ Yes ☐ No
If "Yes", review the completed 'Witness Account Report'

Was the threat made verbally over the phone? ☐ Yes ☐ No
If "Yes", review the completed 'Phone Threat Report'

Was a written threat received? ☐ Yes ☐ No
If "Yes", review the completed 'Written Threat Report'

Are there unusual water quality data or consumer complaints? ☐ Yes ☐ No
If "Yes", review the completed 'Water Quality/Consumer Complaint Report'

Are there unusual symptoms or disease in the population? ☐ Yes ☐ No
If "Yes", review the completed 'Public Health Report'

Is a 'Site Characterization Report' available? ☐ Yes ☐ No
If "Yes", review the completed 'Site Characterization Report'

Are results of sample analysis available? ☐ Yes ☐ No
If "Yes", review the analytical results report, including appropriate QA/QC data

Is a 'Contaminant Identification Report' available? ☐ Yes ☐ No
If "Yes", review the completed 'Sample Analysis Report'

Is there relevant information available from external sources? ☐ Yes ☐ No

Check all that apply

☐ Local law enforcement ☐ FBI ☐ DW primacy agency
☐ Public health agency ☐ Hospitals / 911 call centers ☐ US EPA / Water ISAC
☐ Media reports ☐ Homeland security alerts ☐ Neighboring utilities
☐ Other _____

Point of Contact: _____

Summary of key information from external sources (provide detail in attachments as necessary):

_____
_____
_____
_____
_____
_____

THREAT EVALUATION

Has normal activity been investigated as the cause of the threat warning? ☐ Yes ☐ No

Normal activities to consider

☐ Utility staff inspections ☐ Routine water quality sampling
☐ Construction or maintenance ☐ Contractor activity
☐ Operational changes ☐ Water quality changes with a known cause
☐ Other _____

Is the threat 'possible'? ☐ Yes ☐ No

Summarize the basis for this determination: _____

Response to a 'possible' threat:

☐ None ☐ Site characterization ☐ Isolation/containment
☐ Increased monitoring/security ☐ Other _____

Is the threat 'credible'? ☐ Yes ☐ No

Summarize the basis for this determination: _____

_____

_____

Response to a 'credible' threat:

☐ Sample analysis ☐ Site characterization ☐ Isolation/containment
☐ Partial EOC activation ☐ Public notification ☐ Provide alternate water supply
☐ Other _____

Has a contamination incident been confirmed? ☐ Yes ☐ No

Summarize the basis for this determination: _____

_____

_____

Response to a confirmed incident:

☐ Sample analysis ☐ Site characterization ☐ Isolation/containment
☐ Full EOC activation ☐ Public notification ☐ Provide alternate water supply
☐ Initiate remediation and recovery
☐ Other _____

How do other organizations characterize the threat?

Organization	Evaluation	Comment
☐ Local Law Enforcement	☐ Possible ☐ Credible ☐ Confirmed	
☐ FBI	☐ Possible ☐ Credible ☐ Confirmed	
☐ Public Health Agency	☐ Possible ☐ Credible ☐ Confirmed	
☐ Drinking Water Primacy Agency	☐ Possible ☐ Credible ☐ Confirmed	
☐ Other	☐ Possible ☐ Credible ☐ Confirmed	
☐ Other	☐ Possible ☐ Credible ☐ Confirmed	

SIGNOFF

Name of person responsible for threat evaluation:

Print name _____

Signature _____ Date/Time: _____

Source: EPA Response Protocol Toolbox Module 2, Section 8.2 – Interim Final December 2003

Water Quality/Consumer Complaint Report Form

INSTRUCTIONS - *This form is provided to guide the individual responsible for evaluating unusual water quality data or consumer complaints. It is designed to prompt the analyst to consider various factors or information when evaluating the unusual data. The actual data used in this analysis should be compiled separately and appended to this form. The form can be used to support the threat evaluation due to a threat warning from unusual water quality or consumer complaints, or another type of threat warning in which water quality data or consumer complaints are used to support the evaluation. Note that in this form, water quality refers to both specific water quality parameters and the general aesthetic characteristics of the water that might result in consumer complaints.*

Threat warning is based on: ☐ Water quality ☐ Consumer complaints ☐ Other

What is the water quality parameter or complaint under consideration?

Are unusual consumer complaints corroborated by unusual water quality data?

Is the unusual water quality indicative of a particular contaminant of concern? For example, is the color, odor, or taste associated with a particular contaminant?

Are consumers in the affected area experiencing any unusual health symptoms?

What is 'typical' for consumer complaints for the current season and water quality?
Number of complaints.
Nature of complaints.
Clustering of complaints

What is considered to be 'normal' water quality (i.e., what is the baseline water quality data or level of consumer complaints)?

What is reliability of the method or instrumentation used for the water quality analysis?
Are standards and reagents OK?
Is the method/instrument functioning properly?

Based on recent data, does the unusual water quality appear to be part of a gradual trend (i.e., occurring over several days or longer)?

Are the unusual water quality observations sporadic over a wide area, or are they clustered in a particular area?
What is the extent of the area? Pressure zone. Neighborhood. City block. Street. Building.

If the unusual condition isolated to a specific area:
Is this area being supplied by a particular plant or source water?
Have there been any operational changes at the plant or in the affected area of the system?
Has there been any flushing or distribution system maintenance in the affected area?
Has there been any repair or construction in the area that could impact water quality?

SIGNOFF

Name of person completing form:

Print name _____
Signature _____ Date/Time: _____

Source: EPA Response Protocol Toolbox Module 2, Section 8.7 – Interim Final December 2003

Witness Account Report Form

INSTRUCTIONS

The purpose of this form is to document the observations of a witness to activities that might be considered an incident warning. The individual interviewing the witness, or potentially the witness, should complete this form. This may be the WUERM or an individual designated by incident command to perform the interview. If law enforcement is conducting the interview (which may often be the case), then this form may serve as a prompt for "utility relevant information" that should be pursued during the interview. This form is intended to consolidate the details of the witness account that may be relevant to the threat evaluation process. This form should be completed for each witness that is interviewed.

BASIC INFORMATION

Date/Time of interview: _____

Name of person interviewing the witness: _____

Witness contact information

Full Name: _____

Address: _____

Day-time phone: _____

Evening phone: _____

E-mail address: _____

Reason the witness was in the vicinity of the suspicious activity: _____

_____

_____

WITNESS ACCOUNT

Date/Time of activity: _____

Location of activity:

Site Name: _____

Type of facility

☐ Source water ☐ Treatment plant ☐ Pump station
☐ Ground storage tank ☐ Elevated storage tank ☐ Finished water reservoir
☐ Distribution main ☐ Hydrant ☐ Service connection
☐ Other _____

Address: _____

_____

Additional Site Information: _____

_____

Type of activity

☐ Trespassing ☐ Vandalism ☐ Breaking and entering
☐ Theft ☐ Tampering ☐ Surveillance
☐ Other _____

Additional description of the activity _____

_____

_____

_____

_____

Description of suspects

Were suspects present at the site? ☐ Yes ☐ No

How many suspects were present? _____

Describe each suspect's appearance:

Suspect #	Sex	Race	Hair color	Clothing	Voice
1					
2					
3					
4					
5					
6					

Where any of the suspects wearing uniforms? ☐ Yes ☐ No

If "Yes," describe the uniform(s): _____

Describe any other unusual characteristics of the suspects: _____

Did any of the suspects notice the witness? ☐ Yes ☐ No
If "Yes," how did they respond: _____

Vehicles at the site

Were vehicles present at the site? ☐ Yes ☐ No
Did the vehicles appear to belong to the suspects? ☐ Yes ☐ No
How many vehicles were present? _____
Describe each vehicle:

Vehicle #	Type	Color	Make	Model	License plate
1					
2					
3					
4					

Where there any logos or distinguishing markings on the vehicles? ☐ Yes ☐ No
If "Yes," describe: _____

Provide any additional detail about the vehicles and how they were used (if at all): _____

Equipment at the site

Was any unusual equipment present at the site? ☐ Yes ☐ No

☐ Explosive or incendiary devices ☐ Firearms
☐ PPE (e.g., gloves, masks) ☐ Containers (e.g., bottles, drums)
☐ Tools (e.g., wrenches, bolt cutters) ☐ Hardware (e.g., valves, pipe, hoses)
☐ Lab equipment (e.g., beakers, tubing) ☐ Pumps and related equipment
☐ Other _____

Describe the equipment and how it was being used by the suspects (if at all):

Unusual conditions at the site

Were there any unusual conditions at the site? ☐ Yes ☐ No

☐ Explosions or fires ☐ Fogs or vapors ☐ Unusual odors
☐ Dead/stressed vegetation ☐ Dead animals ☐ Unusual noises
☐ Other _____

Describe the site conditions: _____

Additional observations

Describe any additional details from the witness account: _____

SIGNOFF

Name of interviewer:
Print name _____
Signature _____ Date/Time: _____
Name of witness:
Print name _____
Signature _____ Date/Time: _____

Source: EPA Response Protocol Toolbox Module 2, Section 8.4 – Interim Final December 2003

Damage Assessment Form

INITIAL DAMAGE ASSESSMENT	DATE	PAGE OF

SITE ID	LOCATION *(Use map location, address, etc.)*
DESCRIPTION OF DAMAGE	
IMPACT	COST ESTIMATE

SITE ID	LOCATION *(Use map location, address, etc.)*
DESCRIPTION OF DAMAGE	
IMPACT	COST ESTIMATE

SITE ID	LOCATION *(Use map location, address, etc.)*
DESCRIPTION OF DAMAGE	
IMPACT	COST ESTIMATE

NAME OF INSPECTOR	DEPARTMENT	PHONE

Appendix G Water Quality Emergency Notification Plan

SAN BERNARDINO COUNTY
Public Health
Environmental Health Services

385 N. Arrowhead Ave., 2nd floor, San Bernardino, CA 92415
Email: EHS.CustomerService@dph.sbcounty.gov
Website: wp.sbcounty.gov/dph/ehs
Text/Call: 800.442.2283
Fax: 909.387.4323

WATER QUALITY EMERGENCY NOTIFICATION PLAN

Water System Name: Crestline Village Water District		Water System Number: CA3610015
Physical Location/Address: 777 Cottonwood Dr, Crestline, CA 92325		
City: Crestline	State: CA	Zip: 92325

THE FOLLOWING STAFF HAVE BEEN DESIGNATED TO IMPLEMENT THE WATER QUALITY EMERGENCY NOTIFICATION PLAN UPON ADVISEMENT BY THE STATE WATER REGIONAL CONTROL BOARD (SWRCB) - DIVISION OF DRINKING WATER (DDW) THAT AN IMMINENT DANGER TO THE HEALTH OF WATER CONSUMERS EXISTS.

1. Contact Name & Title: General Manager	Day Phone:
Email:	Evening/Cell Phone:
2. Contact Name & Title: Jeanene Weiss (Office Manager)	Day Phone:
Email: jweiss@cvwater.com	Evening/Cell Phone:
3. Contact Name & Title: Steve Wood (Field Supervisor)	Day Phone: 909-338-1727, ext. 230
Email: swood@cvwater.com	Evening/Cell Phone: 909-709-5656

THE FOLLOWING SWRCB-DDW AND COUNTY HEALTH DEPARTMENT PERSONNEL HAVE BEEN DESIGNATED TO ASSIST WITH IMPLEMENTATION OF THE PLAN.

1. Amanda Chapman, Water Resource Control Engineer		
Email: Amanda.Chapman@waterboards.ca.gov	Day Phone: (909) 383-4329	Evening/Cell Phone: (951) 202-0717
2. Jarrett Hamud, Water Resource Control Engineer		
Email: Jarrett.Hamud@waterboards.ca.gov	Day Phone: (909) 383-4329	Evening/Cell Phone: (562) 713-2348
3.		
Email:	Day Phone: (800) 442-2283	Evening/Cell Phone: (909) 677-7168

If the above personnel cannot be reached, contact:
Office of Emergency Services Warning Center (Available 24hrs)
(800) 852-7550 or (916) 845-8911

NOTE: When reporting a water quality emergency to the Warning Center, ask for the SWRCCB-DDW Duty Officer.

NOTIFICATION PLAN

☑ **Standard Plan**: Select this option if you agree to notify customers by door-to-door contact or written handout sheets. It is important that people going door to door are coordinated and trained to ensure that customers within designated areas of the water system receive notice (including maps) detailing areas of concern.

☐ **Alternate Plan**: Select this option if you plan to use another method of notification and **attach** the alternate plan to this form.

SIGNATURE(S)

☑ By checking this box, I confirm I am submitting this application electronically and that the information on this form is true and correct. I also acknowledge that I have read, understand and accept any terms and conditions of this form.

Report Prepared By (Print Name):	Title:
Signature:	Date: