Appendix L

SVWD Emergency Response Plan

Scotts Valley Water District Water System Emergency Response Plan

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Contents

Appendices

Acronyms and Abbreviations

AP	action plan
ASDWA	Association of State Drinking Water Administrators
ATSDR	Agency for Toxic Substances and Disease Registry
AWWA	American Water Works Association
BSL	Bio-safety lab
BWO	Boil Water Order
CAMAL Net	California Mutual Aid Laboratory Network
CDC	Center for Disease Control
CDPH	California Department of Health Services
CST	Civilian Support Team
DPH	Department of Homeland Security
DWP	Drinking Water Program
EMT	Emergency Medical Technician
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
EWQSK	Emergency Water Quality Sampling Kit
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
GM	General Manager
gpm	gallons per minute
HAZMAT	hazardous materials
HHS	Health and Human Services
ICS	Incident Command System
LD	Laboratory Director
LEPC	Local Emergency Planning Committees
LRN	Laboratory Response Network

MDL	Microbial Disease Laboratory
MSDS	Material Safety Data Sheet
MWDSC	Metropolitan Water District of Southern California
NRWA	National Rural Water Association
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration
PIO	Public Information Officer
PWS	Public Water System
RMP	Risk Management Plan
RTU	Remote Terminal Unit
SCADA	Supervisory Control and Data Acquisition
SD	Security Director
SEMS	Standardized Emergency Management System
SLVW	San Lorenzo Valley Water
SRLB	Sanitation and Radiation Laboratories Branch
SRT	Special Response Team
SVFD	Scotts Valley Fire Department
SVPD	Scotts Valley Police Department
SVWD	Scotts Valley Water District
UWA	Unsafe Water Alert
VA	vulnerability assessment
WMD	Weapons of Mass Destruction
WTP	water treatment plant
WUERM	Water Utility Emergency Response Manager
WUOCM	Water Utility Emergency Operations Center Manager

1.0 Introduction

This section presents the purpose, goals, requirements, access control, and plan overview of the Emergency Response Plan (ERP) for Scotts Valley Water District. *Note that the ERP Activation process is described in Section 5.0.*

1.1 Purpose

The purpose of this ERP is to provide Scotts Valley Water District 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 Scotts Valley Water District will respond to potential threats or actual terrorist scenarios identified in the vulnerability assessment (VA), as well as additional emergency response situations. Included in this ERP are specific action plans (APs) that will be used to respond to events and incidents.

1.2 Goals

The goals of this 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.

1.3 Requirement

This ERP has been designed to comply with Section 1433(b) of the Safe Drinking Water Act (SDWA) 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), California Government Code Section 8607.2 – Public Water System Plans, California Health and Safety Code, Sections 116460, 116555 and 116750, and California Waterworks Standards, Section 64560.

Scotts Valley Water District has provided the required certification to the United States Environmental Protection Agency (USEPA) that this emergency response plan incorporates the results of the VA completed for the system and includes plans, procedures, and identification of equipment that can be implemented or used in the event of a terrorist attack on the water system. Scotts Valley Water District has also provided a copy of the ERP to the local California Department of Health Services (CDPH) Drinking Water Field Operations Branch District Office.

Whenever the ERP is changed or updated, a revised copy, or the specific revised documents, will be sent to the CDPH District Office.

Guidance from the following documents is incorporated in this ERP:

- "California Emergency Response Plan Guidance" (CDPH, Version 1.0, December 2003).
- "Guidance for Water Utility Response, Recovery & Remediation Actions For Man-Made And / Or Technological Emergencies" (USEPA 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" (USEPA 810-F-03-007, July 2003).
- "Response Protocol Toolbox: Planning for and Responding to Drinking Water Contamination Threats and Incidents" (USEPA-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."
- "Emergency Planning Guidance Public and Private Water Utilities." March 1999. California Office of Emergency Services (OES) and California Utilities Emergency Association.

1.4 Access Control

Because of the sensitive nature of the information contained in this ERP, an access control protocol has been established under the direction of the Scotts Valley Water District's Operations Manager. Distribution of the ERP is limited to those individuals directly involved in Scotts Valley Water District'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 Scotts Valley Water District Operations Manager. A secure copy of the ERP is maintained in an off-premises location, known to Scotts Valley Water District's Operations Manager, in the event that the utility's copies cannot be accessed.

1.5 Plan Overview

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

Section 1.0: Introduction: Describes the purpose, goals, regulatory requirements, access control protocol, and overall organization of the ERP.

Section 2.0: Emergency Planning Process Information: Describes Scotts Valley Water District's emergency planning partnerships, mutual aid agreements, emergency response policies, procedures and documents, and summarizes the scenarios from the VA that are addressed in the ERP.

Section 3.0: Water System Information: Provides specific information about Scotts Valley Water District's water system, identifies emergency resources, and identifies alternate and backup water sources.

Section 4.0: SEMS/ICS Integration and Organization: Presents emergency response chain-of-command and information and describes how Scotts Valley Water District will use the Standardized Emergency Management System/Incident Command System (SEMS/ICS) system to manage emergencies.

Section 5.0: Concept of Operations: Describes Scotts Valley Water District's polices, procedures, and plans to mitigate emergency incidents, including how threats may be received into the utility, ERP activation, response capabilities, personnel safety provisions, and protective action protocols.

Section 6.0: Communications Procedures: Describes Scotts Valley Water District's chain of command and provides notification procedures and contact lists for internal and external contacts, including public notice procedures.

Section 7.0: Water Quality Sampling: Includes information and procedures regarding water quality sampling procedures and equipment. Also provides information on available laboratory resources in California.

Section 8.0: Emergency Response, Recovery, and Termination: Describes the three phases of an emergency: response, recovery, and termination. General actions and guidance is provided for each phase, and these procedures should be used in conjunction with the specific action plans in Appendix A.

Section 9.0: Emergency Response Plan Approval, Update, Training, and Exercises: Describes the emergency response training program and the ERP review, approval, and update processes.

Section 10.0: References and Links

2.0 Emergency Planning Process Information

This section presents the Scotts Valley Water District planning partnerships and discusses the relationship between this ERP and other Scotts Valley Water District related plans.

2.1 General Information

2.1.1 Planning Partnerships

Scotts Valley Water District has established emergency planning partnerships with other parties who have agreed to help the utility in an emergency situation. A list of these agencies and a brief description of their emergency capabilities is provided below.

Agency	Capability
City of Scotts Valley Office of Emergency Services (OES). City of Scotts Valley Emergency Operations Center (EOC).	EOC staff plans, coordinates, and directs emergency services during a catastrophic event. The Cities Emergency Operations Center (EOC) is in City Hall. The Incident Command System is activated for managing major incidents, dictates that the Chief of Police is the Operations Chief, reporting to the City Manager, and coordinates the activities in the field for police, fire, public works, water district, parks and recreation, and schools. City Hall has an emergency generator to provide power to the facility. The back up EOC is the Fire Department.
Scotts Valley Fire Department (SVFD)	1. The SVFD currently has 15 Emergency Medical Technicians (EMT's) 2. The SVFD has 9 Paramedics, the SVFD runs 2 Paramedic Fire Engines 24/7 (each engine has a minimum of 1 paramedic and 2 EMT's) 3. The SVFD does not have a Bomb Squad. The nearest bomb squad is with the Santa Cruz County Sheriffs Office 4. The SVFD has a HAZMAT team. It is a county wide team but is locally operated by the SVFD. Currently there are 25 HAZMAT Tech/Specialists 5. The SVFD currently has a total staff of 28 employees: • 1 Fire Chief • 1 Division Chief • 2 Battalion Chiefs • 6 Fire Captains • 6 Engineers • 9 Paramedic Firefighters

Agency	Capability
	• 1 Deputy Fire Marshal • 2 Secretary's On a daily basis they operate 2 fire stations with one engine company at each station. Each company consists of a minimum of 1 Captain, 1 Engineer, and 1 Paramedic Firefighter.
Scotts Valley Police Department (SVPD)	. 1. The SVPD currently has 22 sworn officers, and 9 non-sworn officers. 2. The SVPD has a Special Response Team (SRT) of 8 officers. It's basically a SWAT team. This is a special assignment in addition to their regular duties. 3. The SVPD does not have a Bomb Squad. The nearest bomb squad is with the Santa Cruz County Sheriffs Office. 4. HAZMAT capabilities – The SVPD does not have a HAZMAT team. The SVPD calls the SVFD. 5. The SVPD has it's own E-911 center for receiving all calls to 911 in the Scotts Valley city limits and the SVPD utilizes Santa Cruz County Net Comm as a back up for their E-911 center in the event of a failure or evacuation.
Santa Cruz County Health Department	The Santa Cruz County Health Department will be notified in the event of any emergency with ramifications downstream of Scotts Valley, both relating to surface flows, subsurface flows, and airborne contaminants.
Drinking Water Field Operations Branch (DWFOB), Monterey District	DWFOB activities include field inspections of water systems, issuance of operating permits, reviewing plans and specifications for new facilities, taking enforcement actions for non-compliance with laws and regulations, and reviewing water quality monitoring results, and supporting and promoting **water system security**. DWFOBs work with the US Environmental Protection Agency (EPA), the State Water Resources Control Board (SWRCB), Regional Water Quality Control Boards (RWQCBs), and a wide variety of other parties interested in the protection of drinking water supplies. DWFOB will be notified of any compliance issues, emergencies that could affect water quality.

Agency	Capability
Santa Cruz County Environmental Health Service/Hazardous Materials (HAZMAT)	They will be notified (along with the SVFD) if there is any chemical or contaminant spill. Santa Cruz County HAZMAT has a person on-call 24/7. They are a member of the Santa Cruz Hazardous Materials Interagency Team (SCHMIT), along with the SVFD.
Identify and enter any Outside Testing Laboratory(s) here	Sequoia Analytical Labs will perform BacT tests in a time sensitive manner. MWH Labs performs standard water quality tests for the Scotts Valley Water District. In the event of an emergency MWH can perform tests through level 2 of the testing protical.
Neighboring Water Utilities – San Lorenzo Valley Water District – Lompico Water – Santa Cruz Water – Soquel Creek Water District	Local Water Districts that work cooperatively during catastrophic emergencies/events.
California Regional Water Quality Control Board/Central Coast Division	They will be notified if a chemical or contaminant spill of any kind enters any waterway.
Amateur Radio Operators	ARES HAM radio operators will provide communication services in the event of a standard communication breakdown. The contact information follows in the emergency phone list. Additionally a list of ARES member addresses is included. Operators will be available to broadcast from their home in the event of an emergency,
American Red Cross, Santa Cruz Chapter	Assists in local emergencies, and disasters.

In the event of an attack on the water system, some or all of these agencies, as well as other state and federal agencies, may be called upon for assistance. A complete list of emergency response agencies with their telephone contact numbers is provided in Appendix C.

2.1.2 Mutual Aid Agreements

In addition to the partnerships outlined above, Scotts Valley Water District has established mutual aid agreements with the following organizations:

Organization	Nature of Agreement
DEVCO OIL Inc. - P.O. Box 473 – 139 Encinal – Santa Cruz, CA 95061 – (831)423-2121	Diesel supplier for the District's Gensets (standby generators). DEVCO OIL has on-site a 20,000 gallon and 7,500 gallon diesel storage. They can guarantee diesel delivery during emergencies,
San Lorenzo Valley Water District	Agrees to supply water as described in Interconnection Agreement. See section 3.4.2

Organization	Nature of Agreement
Supervisory Control and Data Acquisition (SCADA) SyCal Engineering (SCADA Repair, and Troubleshooting)	Agrees to assist during an actual attack on the Supervisory Control and Data Acquisition (SCADA) if possible as well as to assist in the recovery of data and gathering evidence for prosecution.

2.1.3 Relationship between ERP and Other Plans

This ERP is intended to assist Scotts Valley Water District'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 shown in the table below

Document	Relationship to ERP
Risk Management Plan (RMP)	This document may contain responses to hazardous chemical releases, such as chlorine.
Identify applicable Material Safety Data Sheets (MSDS)	These are standard data sheets that may contain information regarding responses to specific chemical releases as well as a host of other useful information.
Identify the Water Sampling Plan	This document may provide useful information to support the contamination event stages evaluation as well as to provide information for the baseline analysis or provide conditions that are considered normal for your utility.
Identify the Water Sample Chain of Custody Procedures here	This document(s) may ensure that water samples are protected and properly handled so as to preclude contamination from the sampling process.

2.2 Disaster Events or Scenarios

Specific APs (Action Plans) have been developed to address each of the high-risk threat scenarios identified in Scotts Valley Water District's vulnerability assessment. APs are tailored ERP actions that address specific major events. For security reasons, the procedures outlined in these documents are intentionally general in nature, omitting confidential details and effected assets. The specific APs are attached in the appendices following this main ERP document.

2.2.1 Natural Disasters

Scotts Valley Water District has considered the threats posed by natural events and weather-related phenomena. Specific AP(s) have been developed to guide a timely and prudent response should such threats be realized. These detailed APs are found in the attached appendices. Considered natural disasters include:

Natural Disaster	Primary AP No.
Earthquakes	A1

Floods	A2
Winter Storm	A3
Power Outage	A4
Fire	A5
Freeze	A6

2.2.2 Events Caused by Human Intervention (Man-made Threats)

Scotts Valley Water District has developed specific AP documents, found in the appendices, to respond to the following threats that were identified in the vulnerability analysis:

Threat of Contamination to Water System:

Contact DPH; 911 alert notifies FBI. Staff is put on alert and all available staff reports to designated areas. The distribution system is isolated and shut off. Pressure zones are isolated through closing valves and PRVs. Services are shut off to isolate customers in contaminated areas. Booster stations are shut down, tank valves are closed, public notification process is started. Sampling begins under the direction of the FBI.

Confirmed Contamination to Water System

Contact DPH. Alternate water source plan is activated (see section 3.4.3).

Structural Damage from Explosive Device

Contact DPH. Contact Scotts Valley Police Department (see section 2.1.1 and Appendix C - Emergency phone numbers). Direct bomb squad to clear critical valves in order to hydraulically isolate the damaged infrastructure from the rest of the distribution system. If the event results in the inability to serve customers the alternate water source plan is activated (see section 3.4.3).

Employee Assaulted with Weapon (Armed Intruder)

Call 911 and SVPD. Contact closest relatives.

SCADA System Intrusion

Contact DPH. Call 911. Shut off RTU at wells, treatment plants, tanks, boosters, PRVs. Leave office SCADA system active for tracking purposes. Contact SyCal SCADA consultants for technical support (650) 246-1850.

IT System Intrusion

Call SVPD. Contact Mat Gafke – Exceedio Managed Services (831) 439-9100 ext. 101.

Chemical Release

Call 911. Notify DPH.

Water Supply Interruption

Contact DPH. Boil advisory notification. Collect Bacteriological Sample. Activate alternate water source plan (see section 3.4.3).

Bomb Threat

Call 911. Contact DPH.

3.0 Water System Information

This section presents the core elements of the Scotts Valley Water District ERP, including the system-specific information, roles and responsibilities in an emergency, communication procedures, personnel safety, identification of alternate water sources, emergency and chemical supplies, and property protection.

3.1 System Specific Information

This section contains the Scotts Valley Water District Public Water System (PWS) identification and emergency contacts, as well as basic information to describe the water sytsem.

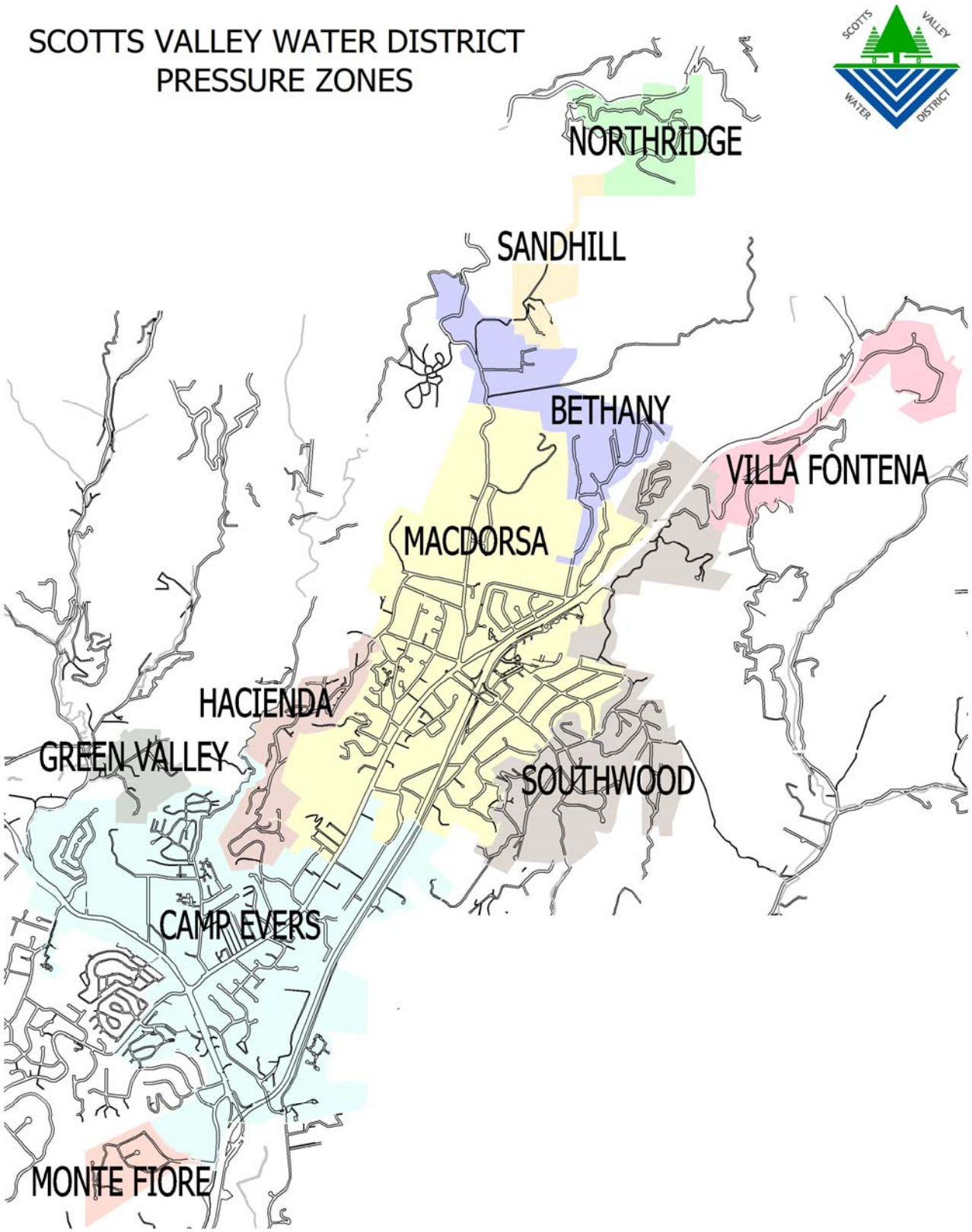
System Identification Number	4410013	
System Name and Physical Address	Scotts Valley Water District 2 Civic Center Drive Scotts Valley, CA 95066	
System Name and Mailing Address	Scotts Valley Water District P.O. Box 660006 Scotts Valley, CA 95067-0006	
Directions to System Office	From Highway 17 North or South bound take the: 1) Mt. Hermon Exit onto Mt. Hermon Rd. Turn right onto Scotts Valley Drive. Turn Left onto Civic Center Drive. The SVWD is on the Right past the stop sign at 2 Civic Center Drive. 2) Granite Creek Exit. If Northbound go over the freeway, then left onto Scotts Valley Drive. If Southbound turn left onto Scotts Valley Drive. Continue South on Scotts Valley Drive. Turn right onto Civic Center Drive. The SVWD is on the Right past the stop sign at 2 Civic Center Drive.	
Number of Service Connections/Population Served	3,861 service connections	11,301 population
Type of Source	6 Groundwater Wells	0 Surface Water Treatment Plants
Interconnection	1 Interconnections (See Section 3.4.2)	
Type of Treatment Provided	Disinfection treatment is provided using 12.5% Sodium Hypochloride. GAC treatment is provided at Well 9 WTP. Well 10 WTP, El Pueblo WTP, and Orchard Run WTP use dual media filters.	
Number of Storage Tanks	8 Treated Water Tanks	0 Raw Water Tanks
Average Water Demand	1,123 (gpm) (average from 1/2004-11/2004)	

Maximum Water Demand	1,609 gpm maximum (max monthly average for 2004)	
Peak Water Demand	2,414 gpm peak (assumes 25% of daily demand in 4 hours)	
Emergency Contact Person(s)	Charles McNiesh General Manager	(831) 438-2363 Office (831) 345-9509 Cell (831) 423-3425 Home Phone
	William O'Brien Assistant General Manager	(831) 438-2363 Office (831) 332-6256 Cell (831) 688-9496 Home Phone

3.2 General System Map/Service Area Map

Distribution System Map

Pressure Boundary Map



3.3 Critical System Components

Included below is an outline of system components deemed critical to operation of Scotts Valley Water District. Information on the location of the asset is included, as well as descriptive information such as entry restrictions or special equipment or tool needs.

Asset	Location	Description
Well		
Well 11A	Access road between 5007 and 5015 Scotts Valley Dr.	Fenced with locked gate. Feeds El Pueblo WTP.
Well 11B	Adjacent to 5165 Scotts Valley Dr.	Fenced with locked gate. Feeds El Pueblo WTP.
Well 11	Adjacent to 5165 Scotts Valley Dr	Fenced with locked gate. Feeds El Pueblo WTP Currently offline.
Well 7A	Adjacent to 6500 Orchard Run Rd.	Fenced with locked gate. High pressure Dual Media water treatment plant on site.
Well 3B	Sucinto Drive and Orchard Run Rd.	Fenced with locked gate. Feeds Orchard Run WTP.
Well 10A	Between 255 and 259 Mt. Hermon Rd. in the Mt. Hermon Shopping Center. Behind McDonalds and beside Long's Drugstore.	Fenced with a locked gate. Dual media treatment facility on site.
Well 9	Adjacent to 370 Blue Bonnet Ln. Near the intersection of Blue Bonnet Ln and Kings Village Rd.	Fenced with a locked gate. GAC water treatment facility on site.
Water Treatment Plant		
El Pueblo Water Treatment Plant	70 El Pueblo Rd.	Fenced with a locked gate. Telephone for entry during business hours. 0.4 MG storage on Site. Can receive water from Camp Evers pressure zone through storage tank.
Orchard Run Water Treatment Plant	Adjacent to 6500 Orchard Run Rd.	Locked gate. Sulphur and Ammonia odor is standard for facility.
Well 10 Water Treatment Plant		Locked gate. Locked door to treatment facility building.
Well 9 Water Treatment Plant		Fenced with a Locked Gate.
Water Storage Tank		
Sequoia Tank – 1.25 MG	Take access road between 233	Fenced with a Locked Gate.

Asset	Location	Description
	and 317 Southwood Dr.	Storage for the Camp Evers Pressure Zone.
Glenwood Tank	Access road off Glenwood Dr. Turn east by Deerfield Dr (across from high school).	Fenced with a Locked Gate. Storage for MacDorsa Pressure Zone.
MacDorsa Tank – 0.75 MG	Access Rd. at the intersection of Ridgecrest Dr and Cadillac Dr.	Fenced with a Locked Gate. Storage for MacDorsa Pressure Zone. Regularly closed main able to supply Hacienda Pressure Zone at low pressures in case of Hacienda Booster failure or Hacienda/Macdorsa standard connection failure.
Southwood tank – 0.4 MG	Access across from 8 Timber Ridge Ln.	Fenced with a Locked Gate. Storage for Southwood Zone.
El Pueblo Tank – 0.4 MG	70 El Pueblo Rd.	Fenced with a Locked Gate. Call for entry during business hours.
Bethany Tank – 0.4 MG	Access of the end of Tabor Rd. (past 795 Tabor Rd.)	Fenced with a Locked gate.
Mt. Roberta Tank – 0.05 MG	Across from 701 Canham Rd.	Fenced with a Locked Gate
Villa Fontenay Tank – 0.03 MG	Adjacent to 103 Charles Hill Ct.	Fenced with a Locked Gate
Booster		
Crescent Booster	Between Crescent Dr. and Crescent Ct.	Fenced with a Locked Gate
Bethany Booster	Adjacent to 570 Bethany Dr.	Fenced with a Locked Gate
Southwood Booster	In front of 3002 Granite Creek Rd.	Fenced with a Locked Gate
Monte Fiore Booster	200 yards west of La Madrona on Silverwood Dr.	Fenced with a Locked Gate
Hacienda Booster	Between 372 and 374 Hacienda Dr.	Fenced with a Locked Gate
Sand Hill Booster	Adjacent to 400 Sand Hill Rd.	Fenced with a Locked Gate
Pressure Regulating Valves		
Scotts Valley Drive PRV	In front of 4803 Scotts Valley Dr.	Vaulted. Requires breaker bar.
Watkins Johnson PRV	Industrial complex at the end of Blue Bonnet Ln	Vaulted. Requires breaker bar, adjustable wrench.
Barn PRV	On Orchard Run Road adjacent to the historical barn building.	Fenced with Locked Gate.
Orchard Run PRV	Adjacent to Orchard Run WTP	Fenced with Locked Gate.
Sand Hill PRV	In front of 400 Sand Hill Rd.	Vaulted. Requires breaker bar, adjustable wrench.

Asset	Location	Description
Northridge PRV	In front of 489 Northridge Rd.	Vaulted. Requires breaker bar, adjustable wrench.

3.4 Identification of Alternate Water Sources

Alternate water sources are described in this section.

3.4.1 Alternate Raw Water Sources

SVWD has no alternate raw water sources.

3.4.2 Interconnects and Agreements with Other Utilities

San Lorenzo Valley Water District (SLVW) is capable of interconnection with SVWD through an existing vault with stub outs from both purveyors**.** A bypass turnout valve connection from Scotts Valley Water District's water distribution system to San Lorenzo Valley Water District is in place and is currently maintained by the Scotts Valley Water District. The connection is made active by placing a meter in the air gap between connections. The interconnection will allow SVWD to supply a portion of its demand in the event of an emergency.

While SLVW has its own groundwater and surface water supplies, the southern and northern portions of SLVW are not currently connected. In the event of interconnection this will allow SVWD access to groundwater only. In the future SLVW may connect their southern and northern portions, effectively adding interconnection capability to both their own water supply and SVWD.

3.4.3 Water Sources for Short-term Outages

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

Short-term water supply options

- Local supermarkets
- Local bottled water companies –

  Crystal Springs Water Co. (800) 423-8966

  423-8956

- Potable water trucking company – J&J Trucking, John Holloway 335-4084

Additional water supply equipment is available from:

National Guard.

Red Cross.

3.5 Emergency Water Supply Calculations

3.6 Amount of Water Needed for Various Durations

Scotts Valley Water District has found it useful to develop an estimate for the quantity of supplemental water required for a number of potential outage scenarios. Demand Table 1 shows the quantity of water necessary to maintain service at average demand. Demand Table 2 shows baseline quantity of water required by the districts customers. If the district is unable to provide water through the distribution system Demand Table 2 outlines the quantities to be supplied through alternate sources (see section 3.4.3).

Demand Table 1

Outage Period	Number of Customers (Service Connections) Affected	Quantity Needed (at average demand)
1 hour	3719	67,377 gallons
12 hours	3719	808,524 gallons
1 day	3719	1,617,059 gallons
2 days	3719	3,234,118 gallons
1 week	3719	11,319,415 gallons

Demand Table 2

Outage Period	Number of Customers (Service Connections) Affected	Quantity Needed (at 2 gallons/person day)
1 hour	3719	1023 gallons
12 hours	3719	12,273 gallons
1 day	3719	24,546 gallons
2 days	3719	49,092 gallons
1 week	3719	171,822 gallons

3.5.2 Estimated Emergency Supply of Water

Scotts Valley Water District 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 Scotts Valley Water District:

Amount of storage = 4,280,000 gallons

System Demand = 1,123 gpm Average, 1,609 gpm Maximum

Emergency Supply = 2.65 days at Average Demand, 1.85 days at Max Demand

3.7 Emergency Communication

3.7.1 Trunked Radios (Mobile)

SVWD maintains radio communications as part of the standard district communications. In the event of an emergency these radios will provide redundant communication capabilities.

3.7.2 Citizen's Band Radio

The SVWD has an agreement with the local ARES ham radio operators to provide communication in the event of an emergency. See Appendix C for contact information.

3.8 Property Protection

In the event of a real or potential malevolent event, the Water Utility Emergency Response Manager (WUERM) will make the determination as to what water system facilities should be immediately "locked down," including the implementation of specific access control procedures and the establishment of a security perimeter. The possibility of secondary malevolent events will be considered, given that the initial act may be diversionary.

Scotts Valley Water District personnel involved in an emergency response will take all necessary measures to protect potential evidence for law enforcement, should the event be declared a crime scene.

Staff will provide security at critical facilities as necessary to augment the SVPD.

4.0 SEMS/ICS Integration and Organization

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

4.1 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 Incident Command System is applied. At this level, 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 ***names of cities, counties, school districts, or special districts.***

Operational Area: The Operational Area concept 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.

Regional: Because of its size and geography, the state of California has been divided into six mutual aid regions by the Governor's OES. In SEMS, the regional level manages and coordinates information and resources among operational areas within the mutual aid region and also 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.

4.2 Five Principle Functions of SEMS

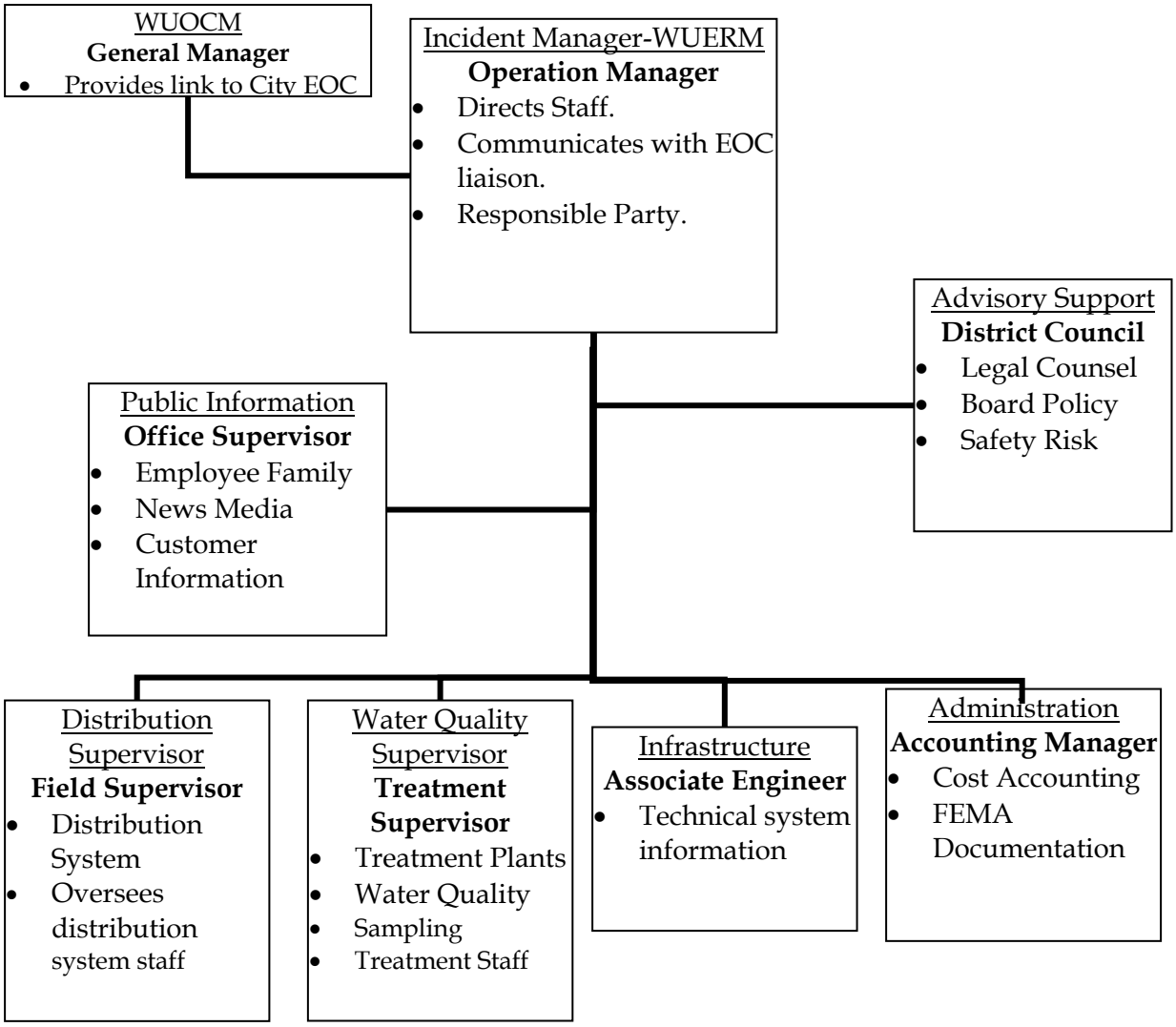
There are five principle functions within SEMS at each of the five organizational levels. They are Management ("Command" at the Field Level), Operations, Planning/Intelligence, Logistics, and Finance/Administration. These functions are modular in their design and can expand or contract depending on the needs of the incident.

A summary of the functions and the responsibiilties of each section, as they relate to Utiilty Name's Operations during an emergency, is provided in the table below.

Function	Responsibilities
Management	• Serves as Command Staff and/or Incident Commander at the Field Level. • Directs Water System Emergency Operations Center (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 incident 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 utiilty. - 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 the 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 of expenditures for personnel and equipment, and maintains records and processes claims. • Provides preliminary estimates of damage costs and losses.

4.3 Scotts Valley Water District Incident Command Structure

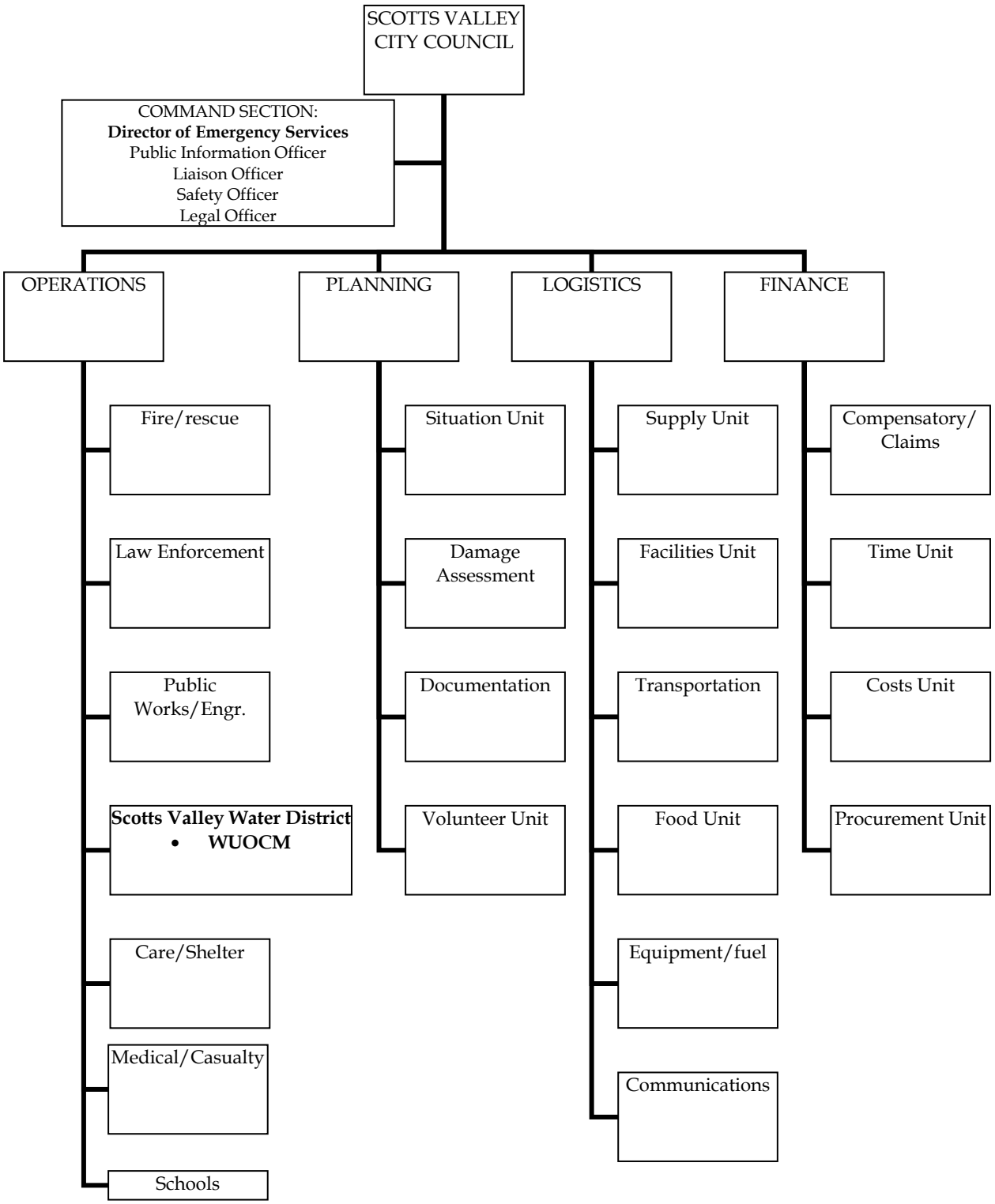
SVWD Command Structure for Emergency Event:



In the event of an emergency the General Manager of SVWD reports to the Scotts Valley City EOC Director of Emergency Services as the Water Utility Emergency Operations Center Manager (WUOCM). The General Duties as outlined by the City of Scotts Valley are:

1) Provide drinking water to community.
2) Provide water for Fire Department.
3) Assist City Public Works where necessary.

Scotts Valley EOC Organization



Emergency Operations Center

4.3.1 EOC Description

Scotts Valley Water District's EOC is a pre-designated facility to coordinate the overall response and support to an emergency. The primary EOC is located at One Civic Center Drive Scotts Valley , CA (in the Council Chambers). During an emergency situation, the EOC will:

- Establish an EOC Director to manage the Operations, Planning/Intelligence, Logistics, Finance/Administration Sections, and related sub-functions.
- Set priorities and develop APs.
- Coordinate and support all field-level incident activities within the utility service area.
- Gather, process, and report information within the utility service area and to other levels of SEMS.
- Coordinate with local government, operational areas, or regional EOCs as appropriate.
- Request resources from higher SEMS levels.

The EOC has sufficient communication equipment (phones, computer, two-way, etc.), copies of all engineering and operational plans and procedures for the Scotts Valley Water District, chalk or white boards, and tables and chairs sufficient to meet the needs of any on-site emergency (review above 4.3).

4.3.2 EOC Activation

In the event a credible or confirmed threat has been established, the Scotts Valley Water District staff will notify the SD and/or the General Manager (GM) or designated alternate. The SD/GM or alternate should then make the decision to activate the City of Scotts Valley EOC. Once the Local Government has been notified of the threat and the Scotts Valley Water District EOC activation, the Scotts Valley Water District EOC designee should provide immediate, specific information to the City of Scotts Valley EOC and be prepared to describe the magnitude and potential impact of the event on public health and safety. Updates on the actions of the Scotts Valley Water District, as well as damages and recovery actions, should be provided regularly and consistently during the event.

5.0 Concept of Operations

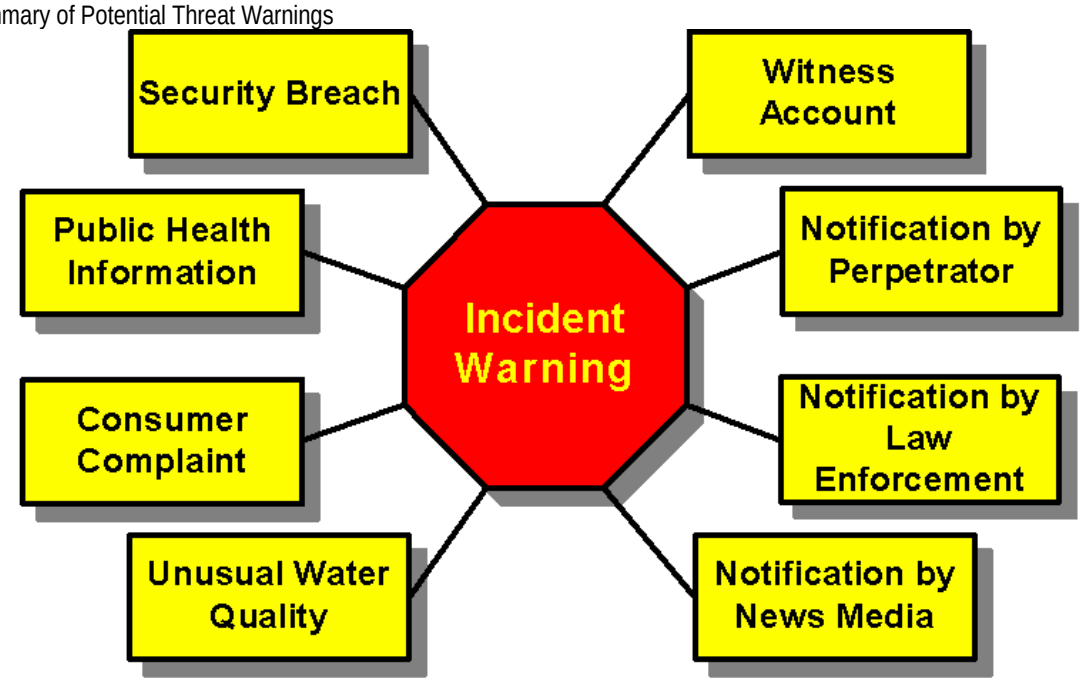
5.1 Decision Process

This section defines the decision process to be followed to determine if and when the ERP should be activated.

5.1.1 Threat Warning

The "threat warning" is the initial occurrence or discovery that triggers an evaluation of whether or not to activate the ERP. A description of the possible types of threat warnings that Scotts Valley Water District may encounter is provided below. If any of these conditions are met, then a Threat Warning will be issued by the GM.

FIGURE 1
Summary of Potential Threat Warnings



5.1.1.1 Threat Warning Conditions

Security Breach. Physical security breaches caused by relaxed operations, such as unsecured doors or criminal acts such as trespassing, are probably the most common threat warnings.

Witness Account. Employees or neighbors may see suspicious activity, such as trespassing, breaking and entering, and other types of tampering, that they report to local law enforcement or water utility.

Notification by Perpetrator. A threat may be made directly to the water utility, either verbally or in writing. Historical incidents would indicate that verbal threats made over the phone are more likely than written threats.

Notification by Law Enforcement. Scotts Valley Water District may receive notification about a threat directly from law enforcement. Such a threat could be a result of a report of suspicious activity or gathered by law enforcement intelligence.

Notification by News Media. A threat to contaminate the water supply might be delivered to the news media, or the media may discover a threat. A conscientious reporter should immediately report such a threat to the police, and either the reporter or the police would immediately contact the water utility.

Unusual Water Quality. All unusual changes in water quality should be investigated. Results should be ruled out that can be explained by the analytical detection method or on-line monitoring system (*i.e.*, false positives/false negative, known interferences, instrument reliability) or results from a known cause (*e.g.*, overdosing of coagulant).

Consumer Complaint. An unexplained or unusually high incidence of consumer complaints about the aesthetic qualities of drinking water may indicate potential contamination. Many chemicals can impart a strong odor or taste to water, and some may discolor the water.

Public Health Notification. The first indication that contamination has occurred may be victims showing up in local emergency rooms and health clinics. An incident triggered by a public health notification is unique in that at least a segment of the population has been exposed to a harmful substance.

5.1.2 ERP Activation

Once a threat warning is issued by the GM or his/her designee, the threat decision process begins. The WUERM or designated alternate should immediately be notified since this person will be involved in this decision process.

The threat decision process is considered in three successive stages: "possible," "credible," and "confirmed." As the threat escalates through these three stages, the actions that might be considered also change. The following table describes the stages, actions that will be taken, and activation of the ERP. The WUERM is responsible for working through the threat decision process and implementing the ERP as needed.

Decision Process Stage	Actions Taken	ERP Activation Level
Stage 1 Possible Threat	Evaluate available information. Review findings from VA. Determine if threat is possible. (Could something have actually happened?)	Implement precautionary response actions.
Stage 2 Credible Threat	Determine that threat is credible by establishing corroborating information.	Activate portions of ERP. • Initiate internal and external notifications.

Decision Process Stage	Actions Taken	ERP Activation Level
	Highly credible source. Health department/customer reports. Unusual monitoring results.	• Issue public health advisories. • Initiate water sampling and analysis. Consider partial or full activation of Scotts Valley Water District EOC.
Stage 3 Confirmed Major Event	Confirm threat by verifying definitive evidence and information that establishes the major event. Perform water sampling and analysis.	Fully implement ERP. Immediately initiate appropriate APs. Fully activate Scotts Valley Water District EOC.

5.2 Response Capability Identified in the Water System VA

This section describes the response capabilities for Scotts Valley Water District that were identified in the water system VA.

Response Type	Title	Description
Procedures	Emergency Operating Procedures	A set of procedures that define employee responses to specific types of emergency events.
Procedures	Coordination with Local Police Force	An agreement with local law enforcement units regarding the support the utility can expect from the agency and the type of training and support the utility will provide to responding police agencies.
Communication	Public Address or Other Warning System	Used to notify people within a facility of an incident. Should a building or entire facility need to be evacuated, it is important to have a means by which everyone can be notified.
Mitigation	Fire Brigade at the Plant	Training and equipping a group of first responders from the plant population.

5.3 Personnel Safety

The safety of Scotts Valley Water District 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 Scotts Valley Water District's Risk Management Plan and in the associated AP. This section will cover Facility Protective Actions, Personnel Accountability, Public Notification for Protective Actions, and Emergency First Aid procedures.

5.3.1 Facility Protective Actions

Facility protective actions include sheltering-in-place, evacuation**,** and a combination of the two. When determining the appropriate protective action decision, the Scotts Valley Water District GM/SD or designee will carefully consider:

- If a hazardous material is involved, its characteristics, amount, release rate, physical state, ambient temperature, and location
- The employees at risk and 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, flood stage level, 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.

5.3.1.1 Evacuations

- Facility evacuation should follow the pre-designated evacuation routes from buildings and plant grounds as shown in Appendix B.
- These evacuation routes are posted at ***the entrance to all buildings and within employee break areas.***
- If an evacuation is ordered by the GM/SD, 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, other pre-designated individual.***
- Supervisors are responsible to assure their disabled employees are provided with adequate assistance during the evacuation.

5.3.1.2 Sheltering-in-place

- Sheltering in place should occur in the pre-designated facilities and locations as described in Section 5.5.1 and as shown in Appendix B.
- Locations should be equipped with emergency medical supplies and provisions.

5.3.2 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 GM/SD 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.

5.3.3 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.

Scotts Valley Water District will respond to requests from the local agencies for recommendations, or protective actions for the general population surrounding the facility.

5.3.4 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.
- ***GM/SD 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, MSDSs, 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 Occupational Safety and Health Administration (OSHA).

5.4 Protective Action Protocols

The protocols that Scotts Valley Water District uses for sheltering-in-place and for evacuation are described below.

5.4.1 Sheltering-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 SD or GM is 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.
- ***Add utility-specific instructions for sheltering-in-place during a hazardous materials release (for example, shut off or re-configure ventilation system).***

5.4.2 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.

5.4.2.1 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.

5.4.2.2 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 the responsibility of the Local Government this information may be helpful if you are 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 fewer 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.

5.4.3 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 are:

List Locations Here

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.

5.4.4 Shelter Locations

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

List Locations here

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

- 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 SD or designee must secure the area. Security 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.

6.0 Communication Procedures

In general, communications during an emergency response will proceed along the chain of command of the SEMS/ICS. The number of people notified will increase as the incident expands and decrease as the incident contracts toward its conclusion.

The type and extent of the disaster will dictate the normal and/or alternative methods of communication that will be used. The possibility of a coordinated attack that targets the water, power, and communications systems must be considered. In this case, it would be reasonable to assume that some methods of communication will either be unavailable or limited to certain areas during an emergency. It is anticipated that employees will know upon arrival at their duty stations which communication systems are functional and which are not. This information should be relayed to the Scotts Valley Water District Information Officer upon discovery.

Scotts Valley Water District uses the ICS for its command structure during water emergencies. The table below describes the ICS command structure positions and shows which individuals will hold the various positions during different emergency situations (recognizing that at different stages of an event or for different severity of events that the person/position responsible in the ICS changes).

6.1 Scotts Valley Water District Chain of Command

Scotts Valley Water District Primary Position Descriptions and Assignments

Name and Title	Responsibilities during an Emergency	Contact Numbers
Charles McNiesh Incident Commander	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: (831)4382363 Cell: (831)345-9509 Pager: Home: (831)423-3425
William O'Brien Water Utility Emergency Response Manager	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.	Office: (831)438-2363 Cell: (831)332-6256 Pager: Home: (831)688-9496
Marcus Ervin /Steve Yetter Alternate WUERM	Takes over for primary WUERM if primary WUERM is unavailable.	Marcus's Cell: (408)568-3657 Steve's Cell: (831)254-7809

Scotts Valley Water District Primary Position Descriptions and Assignments

Name and Title	Responsibilities during an Emergency	Contact Numbers
Charles McNiesh Water Utility Emergency Operations Center Manager (WUOCM)	Heads water utility's EOC. Provides operational and resource management during an emergency.	Office: (831)438-2363 Cell: (831)345-9509 Pager: Home: (831)423-3425
William O'Brien Public Information Officer PIO	Member of the command staff and reports directly to the Incident Commander. Interfaces with media and disseminates public information. Plans the information strategy.	Office: (831)438-2363 Cell: (831)332-6256 Pager: Home: (831)688-9496
William O'Brien Liaison Officer	Member of the command staff On-scene contact for representatives from other agencies.	Office: (831)438-2363 Cell: (831)332-6256 Pager: Home: (831)688-9496
Mark Hendersen Safety Officer	Develops and recommends measures for assuring personnel safety. Assess and anticipates hazardous and unsafe conditions.	Office: (831)438-2363 Cell: (831)254-7809 Pager: Home: (831) ?
Terri Kerr 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.	Office: (831)438-2363 Cell: (831)818-1315 Pager: Home: (831)336-2824
Marcus Ervin Treatment Supervisor	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.	Office: (831)438-2363 Cell: (408)568-3657 Pager: Home: (831)
Marcus Ervin Treatment Supervisor	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.	Office: (831)438-2363 Cell: (408)568-3657 Pager: Home: (831)
Mark Hendersen Field Supervisor/	In charge of operating the water distribution system.	Office: (831)438-2363 Cell: (831)254-7809

Scotts Valley Water District Primary Position Descriptions and Assignments

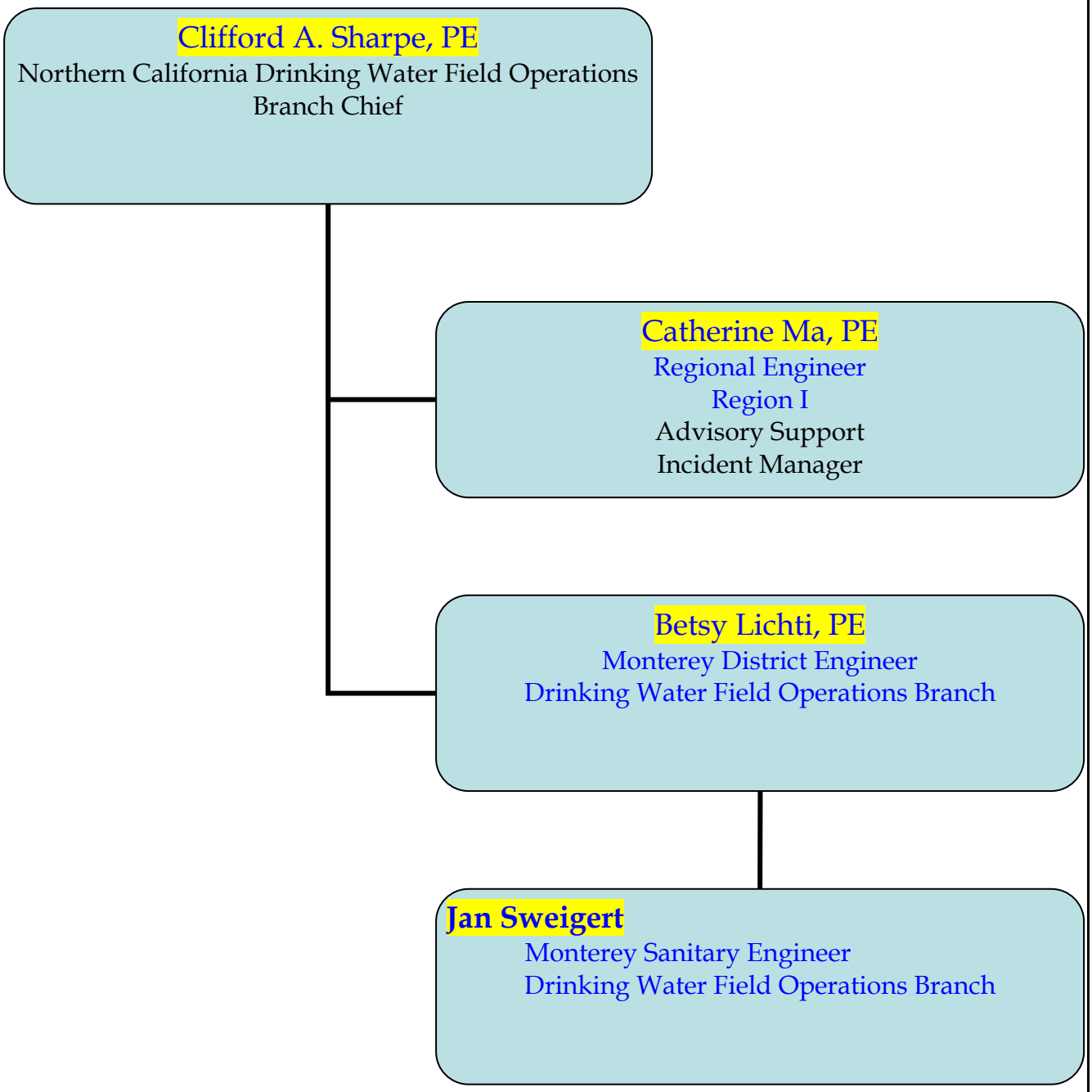
Name and Title	Responsibilities during an Emergency	Contact Numbers
	Performs inspections, maintenance, sampling of the system and relaying critical information to the WUERM. Assess facilities and provides recommendations to the WUERM.	Pager: Home: (831) ?
Marcus Ervin Treatment Supervisor	Oversees delivery of water quality notices or door hangers. Provides backup to water system operator. Conducts site inspections of all facilities.	Office: (831)438-2363 Cell: (408)568-3657 Pager: Home: (831)

6.2 Drinking Water Field Operation Branch – Chain of Command

The primary contact for the Scotts Valley Water District during any emergency is the District Engineer. Scotts Valley Water District 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.

The following flow chart shows the chain of command structure within the California Department of Health Services Drinking Water Program (DWP). The CDHS DWP Web site has a map showing all the contact information for each District Office and District Engineer. http://www.dhs.ca.gov/ps/ddwem/technical/dwp/dwpindex.htm. The figure can be modified to show your utility's command structure, and you can add names and contact numbers from the CDHS DWP Web site.


Clifford A. Sharpe, PE
Northern California Drinking Water Field Operations
Branch Chief
Catherine Ma, PE
Regional Engineer
Region I
Advisory Support
Incident Manager
Betsy Lichti, PE
Monterey District Engineer
Drinking Water Field Operations Branch
Jan Sweigert
Monterey Sanitary Engineer
Drinking Water Field Operations Branch

6.3 Notification Procedures

6.3.1 Initial Notifications

First Responders (911): If the situation is an emergency that needs response from local fire, law enforcement, medical or HAZMAT team, calling 911 should be the first immediate call.

Scotts Valley Water District is aware that if the water system staff call 911 from a cell phone, then the call is routed to the nearest California Highway Patrol Office, which may be in another city or county, and not in the immediate local 911 area. Direct phone numbers have been obtained from local first responders for the different 911 areas that are served by Scotts Valley Water District. These numbers are shown in the Table C-1 in Appendix C.

6.3.2 Internal Contact List

The contact information in Table C-2 in Appendix C represents the network of Scotts Valley Water District personnel and serves as the primary means of contacting internal staff.

If it becomes necessary to contact the staff member's family or emergency contact, the PIO will have primary responsibility for making the notification. The ***Human Resources Manager*** will assist the PIO with family member communications as needed.

6.3.3 External Contact List

Tables C-3, C-4, C-5, C-6, and C-7 in Appendix C contain contact information for the local and national agencies that Scotts Valley Water District may need to notify. The WUERM will make the decision as to which of these agencies needs to be notified, and at what point in the threat evaluation the calls should be made. The PIO or Liaison Officer will serve as the water utility point of contact for these agencies.

In addition to the External Contact List in Appendix C, Scotts Valley Water District maintains an Emergency Notification Plan (Appendix E) that includes day and evening phone numbers for the CDPH District Engineer and/or staff, CA State OES, and County Personnel. The Notification Plan also includes procedures for notifying the affected service area, and it is updated whenever there is a personnel change.

Note: Each PWS in California can obtain a specific Emergency Notification Plan form from their CDHS District Engineer. It is typically mailed/emailed with the Annual Reports and has current contact information for the CDHS DE, district staff and County Personnel.

6.3.4 Additional Information on State of California Agencies

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

Contact to the CDPH DWP should be to their District Engineer. If the water system is unable to contact the District Engineer (or one of their staff), the water system should use the California OES Warning Center Phone Number: 1-800-852-7550, which is a 24/7 phone number. A second phone number for the OES Warning Center is 916-845-8911.

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 you request the CDPH duty officer. The CDPH duty officer will then call management staff in the DWP to respond to the emergency.

The District Engineer will be able to assist Scotts Valley Water District 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.
- Providing 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.

6.3.5 Critical Customers Contact List

In addition to the agencies listed in the previous tables in Appendix C, Table C-8 in Appendix C contains contact information for Scotts Valley Water District's Critical Care Customers (Primary Notification) and Large Water Users (Secondary Notification). The WUERM will decide if the PIO will notify some or all of these customers in the event of an emergency involving the water system.

Scotts Valley Water District's Water Quality Emergency Notification Plan, as required under Section 116460, California Health and Safety Code, is included in Appendix E of this ERP.

6.3.6 Contact Information for Fire-fighting Water Alternate Sources

If the water becomes contaminated with substances that render it unsafe to be used for fire-fighting, then an order will be issued to discontinue use of the affected fire hydrants. Alternate sources for fire-fighting water are shown in Table C-9 in Appendix C.

6.3.7 Contact Information for Bulk and Bottled Water Suppliers

Scotts Valley Water District has identified agencies and private companies as shown in Table C-10 in Appendix C that could provide water supplies (bottled or bulk) in the event of an incident.

6.4 Public Notice Procedures

6.4.1 Media Notification

Effective communication with the public is a key element of this ERP. Scotts Valley Water District personnel have been instructed to direct all media questions or information requests related to an emergency situation to Scotts Valley Water District's Public Information Officer, PIO. The PIO is the official spokesperson for Scotts Valley Water District and is the only Scotts Valley Water District employee who is authorized to speak directly to public media representatives.

Table C-11 in Appendix C provides contact information for the various media agencies that Scotts Valley Water District PIO might use to disseminate information to the public.

6.4.2 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:

- CDPH DWP. Designated personnel: District Engineer, Regional Engineer or Branch Chief.
- Local County Health Department. Designated personnel: County Health Officer or Director of 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., Director of Water Quality, Manager, Director of Water Department, Director of Public Works, Owner, etc.).

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 CDHS District Engineer. If that is the case, the water system must notify CDHS, the County Health Officer and the Environmental County Health Department immediately after issuing a BWO/UWA. Usually a water system will not issue a public notice without the approval (or advisement/guidance from CDHS) as they do not want to take on the sole responsibility for the public notice. In that sense CDHS, will partner with the water system to make the public health decision whether to issue a BWO/UWA or not..

In the event that a BWO, UWA, or Do Not Drink Notice is issued by Scotts Valley Water District, the GM 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 PIO in the EOC immediately.

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

Scotts Valley Water District will notify the CDPH 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. Table C-12 in Appendix C shows the primary, 1st Alternate and 2nd Alternate contacts for the County Public Health Officer and the County Environmental Health Department.

Scotts Valley Water District has prepared a series of public notices and press releases for use during various emergency situations in accordance with CDPH guidance. These notices can be found in Appendix D.

A 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:
    - Positive total or fecal coliform bacteriological samples.
    - Prolonged water outages in areas of ruptured sewer and/or water mains.
    - Failed septic tank systems in close proximity to ruptured water mains.
    - Ruptured water treatment, storage, and/or distribution facilities in areas of known sewage spills.
    - Known biological contamination.
    - Cross-connection contamination problems.
    - Illness attributed to water supply.
2. Unusual system characteristics, including but not limited to:
    - Prolonged loss of pressure.
    - Sudden loss of chlorine residual.
    - Severe discoloration and odor.
    - Inability to implement emergency chlorination.
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 cooking, but may be used for sanitation purposes. Examples of these situations include:

1. Known or suspected widespread chemical or hazardous contamination in water supply distribution, including but not limited to:
    - Ruptured water distribution system (storage tanks, mains) in area of known chemical spill coupled with loss of pressure.
    - Severe odor and discoloration.
    - Loss of chlorine residual.
    - Inability of existing water treatment process to neutralize chemical contaminants prior to entering the distribution system.
2. Threatened or suspected acts of sabotage confirmed by analytical results, including but not limited to:
    - Suspected contamination triggered by acts of sabotage or vandalism.
3. Emergency use of an unapproved source to provide a supplemental water supply.

UWA/Do Not Use: In the event a known or suspected contamination event occurs to the water system, where the contaminate may be chemical, biological, or radiological, a UWA or Do Not Use should be issued. Water should not be used for drinking, cooking, or sanitation purposes. Examples of these situations include:

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

6.5 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.

CDPH DWP will not lift the BWO until two rounds, collected one day apart, of coliform bacteria samples have been analyzed and the results are negative. Scotts Valley Water District will fax two sets of sample results to the CDPH DWP District Office for final approval before rescinding the BWO.

Special chemical sampling will be required to rescind an UWA. Scotts Valley Water District will contact the CDPH DWP District Office to determine required sampling.

7.0 Water Quality Sampling

NOTE: *Laboratory protocols and procedures identified in Section 7.0 are still under development by federal and state Agencies. Water utilities are encouraged to customize this section to reflect the laboratory resources that are currently available, and to update this section as new information becomes available. Some utilities will rely primarily on the local HAZMAT team, health department, or emergency management agency to collect and analyze samples during a contamination threat or incident. If that is the case for your utility, completion of Section 7.8 should be sufficient water quality sampling information for your ERP.*

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 natural disaster, flood or power outage, sampling will probably only include bacteriological samples, turbidity and chlorine residual samples if the system is chlorinated. However, 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).

7.1 Laboratory Resources

In general there are four different types or ownership of laboratory facilities in California that can analyze drinking water samples, which are listed below:

1. Commercial/private 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, such as chemical weapons and radionuclides. Biological laboratories include environmental microbiology laboratories and the Laboratory Response Network (LRN) that typically analyze clinical samples for pathogens and select biotoxins.

7.2 CDPH Laboratory

The CDPH Sanitation and Radiation Laboratories Branch (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, located in Richmond, carries out inorganic and organic analyses in water, and radiochemical testing in various environmental matrices in addition to water. The SRLB in conjunction with the CDPH Microbial Disease Laboratory (MDL) does microbiological analyses including biotoxins.

7.3 California Mutual Aid Laboratory Network

The CDPH SRLB—in conjunction with the water utilities, USEPA Region 9 laboratory in Richmond, Lawrence Livermore National Laboratory, and the California Department of Water Resources—have formed a laboratory network, the California Mutual Aid Laboratory Network (CAMAL Net), to address 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 that the sample may contain a Center for Disease Control (CDC)-listed WMD agent. The list of WMD agents can be found on the CDC Web page at http://www.bt.cdc.gov/. Any request for analysis through the CAMAL Net system needs to be approved by the CDPH DWP District Engineer in Scotts Valley Water District's jurisdiction prior to collection of water quality samples to be processed.

7.4 Chemical Analysis Classification

The CDPH, along with its stakeholders and federal partners, are in the process of developing an algorithm to assist California water systems, public health agencies, law enforcement, and first responders with the identification of possible chemical agents in drinking water contamination events. A draft version has been developed, and it is anticipated that a final version will be released in the near future. The final version will become an appendix to this ERP.

7.5 Biological Analysis Classification

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

- Level A Lab uses a Class II biosafety lab (BSL) cabinet.
- Level B Lab is a BSL-2 facility + BSL-3 safety practices.
- Level C Lab is a BSL-3 facility.
- Level D Lab is a BSL-4 facility.
- Level A Labs are used to rule out and forward organisms.
- Level B Labs are used for limited confirmation and transport.
- Level C Labs are used for molecular assays and reference capacity.
- 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 two Level C laboratories are the Los Angeles County Public Health Laboratory in Los

Angeles, California and the CDPH MDL in Richmond, California. Lawrence Livermore National Laboratory is also a Level C laboratory, but access to that lab is restricted. The only Level D laboratories available in the LRN are the national laboratories, such as those at 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 and provide support for other LRN members during a serious outbreak or terrorist event. The most dangerous or perplexing pathogens are handled only at the Bio-Safety Level 4 laboratories at CDC and the United States Army Medical Research Institute of Infectious Diseases.

7.6 Natural Disaster

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

7.7 Terrorist Event/Contamination Event

Once a threat warning has occurred and Scotts Valley Water District 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, CDPH DWP (Drinking Water Primacy Agency), 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, and 1C.

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 laboratory, and analyze the samples.

Scotts Valley Water District's first step in this process will be to contact the CDPH District Engineer so the utility can notify the CDPH-SRLB of the incoming samples. The following steps are described in more detail below:

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 one kit is approximately $200.

CDHS DWP will purchase the supplies to create enough EWQSK to supply 2-3 in each DWP District Office. If water systems do not want to purchase and maintain their own kits, then the DWP 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.

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

7.7.1 Emergency Water Quality Sampling Kit

Scotts Valley Water District's EWQSK contains sample bottles need for chemical, radiological, and microbiological analysis that can be split into three complete sample sets. A complete list of the EWQSK contents is provided in Appendix B. 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.

7.7.2 Sample Collection

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

- Scotts Valley Water District will collect samples for public health to determine if the water is safe for consumption using the EWQSK for public health.
- Scotts Valley Water District will assist the FBI as requested to collect samples for the crime scene investigation.
- Scotts Valley Water District will also provide assistance 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.

7.7.3 Laboratory

Depending on the results of the field screening and actual event, the required laboratories will be notified and prepared to accept the samples. If an EWQSK (supplied by Scotts Valley Water District or CDPH DWP) is used, the CAMAL Net and the LRN will be notified and involved in the process for laboratory selection. The first step in this process is for the District Engineer working with Scotts Valley Water District to contact SRLB.

7.7.4 Sample Transport

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

7.7.5 Sample Analysis

Once the samples are delivered to the appropriate laboratory, they may be split for analysis to different laboratories. The CDPH 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 analysis.

7.8 Scotts Valley Water District Water Sampling and Monitoring Procedures

The Scotts Valley Water District in conjunction with local HAZMAT will have the primary responsibility for all water sampling and monitoring activities during an actual or potential contamination event. The Scotts Valley Water District Treatment Supervisor and Distribution Supervisor will provide technical support and advice to the local emergency management agency and HAZMAT team as needed throughout the incident.

The Treatment Supervisor will also play a key role in the interpretation and communication of monitoring or lab results and will consult directly with the WUERM on significant findings.

Specific information and procedures regarding water sampling and monitoring is included in the following table:

Contaminant	Sampling/Monitoring Procedures	Quantity of Required Samples	Responsible Individual
Title 22 contaminants	Per title 22 regulations	Per title 22 regulations	Treatment supervisor
Coliform Bacteria	3 samples/week rotating through system 1 Sample for possible contamination event 3 samples to clear a positive bacteriological result.	100 ml	Treatment Supervisor
Unknown antigen	Unknown	Unknown	FBI

The Scotts Valley Water District laboratory has the following analytical capabilities:

The Scotts Valley Water District laboratory is not a certified lab. If necessary the lab could analyze samples for BacT and pH.

Scotts Valley Water District uses the following laboratories for analysis:

Outside Laboratory Name	Contact Number	Capabilities
MWH Laboratories	(626) 386-1100, (800) 566-LABS Lab# (916) 652-4556	See website for complete list: http://www.mwhlabs.com/default.asp?sect=services&page=testlist
Soil Control Lab	(831)724-5422 (Fax) ?	42 Hangar Way, Watsonville CA

Outside Laboratory Name	Contact Number	Capabilities

8.0 Emergency Response, Recovery, and Termination

8.1 Response Phase

8.1.1 Initial Response

When a situation occurs that is judged to be of 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 Scotts Valley Water District 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 Scotts Valley Water District's EOC.

Additionally, immediate specific information should include the status of Scotts Valley Water District's:

- Personnel
- Equipment
- Vehicles
- Communications capabilities
- Facilities

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

1. Notify the WUERM or the Alternate 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 identify 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 WUERM is responsible for establishing a Damage Assessment Team.

The Scotts Valley Water District Damage Assessment Team will be led by ***an operations or maintenance supervisor, with representatives from engineering 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:

- Conduct an initial analysis of the extent of damage to the system or facility.
- 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.
- Provide this estimate to the procurement representative for a cost estimate to conduct repairs.

Appendix F contains a damage assessment form that can be used for all Scotts Valley Water District facilities.

8.2 Recovery phase

8.2.1 Recovery Planning

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 Scotts Valley Water District Recovery Manager will be a senior operations 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 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 and includes:

- 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.
- PIO, who will respond to inquiries or concerns from employees, the public, the news media, and outside agencies. The PIO 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 recovery phase is underway.
- Install warning signs, barriers, and shielding as needed.
- Take measures to protect workers and the public from hazardous exposures.
- Complete detailed evaluations of all affected water utility facilities and determine priorities for permanent repair, reconstruction, or replacement at existing or new locations.
- Begin repair activities design and make bids for contractor services.
- Make necessary 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 losses and costs for repair and replacement, determine approximate reimbursements 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 discharges 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 (follow 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 providing employee assistance programs if needed.
- Prepare After-Action Reports as required. Complete reports within 6 months of the event (90 days for public utilities which are part of a city or county government.).

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 Scotts Valley Water District ERP, and standard operating procedures, as needed, based upon lessons learned during the emergency response and recovery phases of the event.

9.0 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 Scotts Valley Water District process for review and approval of the ERP is described in the sections below.

9.1.1 Scotts Valley Water District 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 WUERM, GM, and other approval personnel. The plan will undergo an initial review and approval process and will be reviewed and signed off by the SD after each revision. A revision log is found in the front of the ERP binder.

9.1.2 Local Government Approval

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

9.2 Practice and Update 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 SD deems it necessary.

The SD will be responsible for the organization and management of the security-training program.

9.2.2 Schedule for ERP Review and Update

The SD will review and update the ERP and APs as follows:

- Annually prior to the annual ERP/AP training sessions.
- Upon update of the VA.

- Following the ERP exercises.
- Within 2 months of any significant plant 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.

Add specific procedures for updating the document (for example, change request form) and procedures for ensuring that all ERP holders receive updates.

9.3 Assessment of ERP Effectiveness

To evaluate the effectiveness of the ERP and to ensure that procedures and practices developed under the ERP are adequate and are being implemented properly, the Scotts Valley Water District staff will perform audits of the program on a periodic basis.

One method of audit will be through exercises and drills. Members of Scotts Valley Water District management will act as observers during the exercises and will evaluate the staff's performance in responding to emergency incidents as well as the overall effectiveness of the ERP in accomplishing their goals. Scotts Valley Water District 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 the GM's meeting each time the VA is updated. At this time, Scotts Valley Water District management and staff will discuss the need to update or augment the ERP based on new information regarding threats or critical asset vulnerability.

The SD will maintain a file of ERP assessment and after-action reports.

9.4 Training, Exercises, and Drills

All Scotts Valley Water District personnel who may be required to respond to emergencies will receive initial and refresher training class on this 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 will consist of the following programs:

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.

Table Top Workshop: Table top 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. Next they will verbally respond to a series of questions and then evaluate whether their responses match what is written in the ERP.

Functional Exercises: The functional exercise is designed to simulate a real major event. A team of simulators is trained to develop a realistic situation. By using a series of pre-scripted messages, the simulation team sends information in to personnel assigned to carry out the ERP procedures. Both the simulators and personnel responding to the simulation are focused on carrying out the procedures to test the 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 they respond as directed by the ERP and the Incident Commander or WUERM at the scene.

10.0 References and Links

The following is a list of references and Internet links that provide additional water system security and ERP information.

California Department of Health Services Drinking Water Program: CDPH DWP is the Drinking Water Primacy Agency for all California public water systems serving over 200 service connections. CDPH has published a guidance document to assist California public water systems in developing or revising their emergency response plans. General information, as well as the guidance document and its appendices, is available at http://www.DPH.ca.gov/ps/ddwem/homeland/default.htm.

Department of Homeland Security (DPH): DPH is the overall lead agency for homeland security issues. DPH will become involved in incident response if needed. General information is available at http://www.DPH.gov/DPHpublic.

United States Environmental Protection Agency: USEPA has numerous resources available. The following are key sources:

- Water Infrastructure Security information, guidance, and training information can be found at http://www.epa.gov/safewater/security/index.html.
- Information on Local Emergency Planning Committees (LEPCs) can be found at http://www.epa.gov/ceppo/lepclist.htm.

The Center for Disease Control and Prevention: 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. Information on emergency preparedness and response can be found at http://www.bt.cdc.gov/.

- To assist in the development of a 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 2001), which can be found at http://www.bt.cdc.gov/Documents/Planning/PlanningGuidance.pdf.
- *Interim Recommended Notification Procedures for Local and State Public Health Department Leaders in the Event of a Bioterrorist Incident* can be found at http://www.bt.cdc.gov/EmContact/Protocols.asp.

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. FEMA takes the lead if an incident is assigned to DPH. General information can be found at http://www.fema.gov. In addition, several online training courses relevant to emergency management are available on-line from FEMA at http://training.fema.gov/EMIWeb/IS/crslist.asp.

The 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. AWWA information can be accessed at http://www.awwa.org. Specific AWWA resources can be found at http://www.awwa.org/communications/offer/secureresources.cfm.

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. Go to the security link at http://www.asdwa.org/.

National Rural Water Association (NRWA): NRWA developed the SEMS Software Program, which 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 3,300 and 10,000*. More information can be found at http://www.nrwa.org/.

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. More information can be found at http://www.atsdr.cdc.gov/.

Appendix A
Action Plans

Appendix A1

Earthquake

In the event of an earthquake staff will report to their assigned stations as follows.

General Manager:
Reports to Office of Emergency Services (OES) located at the City Hall, #1 Civic Center Drive, Scotts Valley, California, Santa Cruz County. Implements SVWD participation in area Disaster Response Plan.

Operations Manager/Assistant General Manager:
Reports to District Office located at #2 Civic Center Drive. Coordinates implementation of SVWD Emergency Response Plan.

Accountant/Office Supervisor and Office Staff:
Report to SVWD Office, located at #2 Civic Center Drive.

- Handle all phone calls, and customer service issues.
    - Check in with General Manager at OES
    - Continually advise/update Operations Manager on status of the situation.

Field Supervisor:
Reports to SVWD Corporation Yard/Operations Center, located at 70 El Pueblo Road. Continually advises/updates Operations Manager on status.

- Dispatches Operations Personnel and equipment assignments, according to Priority List, unless immediate knowledge dictates other priority responses.
- Coordinates Emergency Power Equipment distribution.
- Directs/oversees repairs as required.
- Assists Treatment Division with emergency disinfection, or plant operation, as required.
- Standby to aid in other Local Agency requests for assistance.

Treatment Supervisor:
Reports to SVWD Treatment Plant/Operations Center, at 70 El Pueblo Road. Continually advises/updates Operations Manager on Status.

- Coordinates Treatment Plant(s) operations.
- Determines & implements emergency disinfection procedures, as required.
- Obtains water quality samples in areas of concern for analysis, ASAP.
- Assists Distribution Division as availability permits.
- Standby to aid in other Local Agency requests for assistance.

All Other Field and Treatment Staff:
Report to SVWD Corporation Yard/Operations Center, 70 El Pueblo Road.

- Respond to following Priority:
    - Assignments by Field Supervisor, or Treatment Supervisor
    - Most Senior Person, or
    - Next Available Item on Priority List, or
    - Known Emergency Scenario if appropriate.

Appendix A2

Floods

In the event of a flood staff will report to their assigned stations as follows.

General Manager:
Reports to Office of Emergency Services (OES) located at the City Hall, #1 Civic Center Drive, Scotts Valley, California, Santa Cruz County. Implements SVWD participation in area Disaster Response Plan.

Operations Manager/Assistant General Manager:
Reports to District Office located at #2 Civic Center Drive. Coordinates implementation of SVWD Emergency Response Plan.

Accountant/Office Supervisor and Office Staff:
Report to SVWD Office, located at #2 Civic Center Drive.

- Handle all phone calls, and customer service issues.
    - Check in with General Manager at OES
    - Continually advise/update Operations Manager on status of the situation.

Field Supervisor:
Reports to SVWD Corporation Yard/Operations Center, located at 70 El Pueblo Road. Continually advises/updates Operations Manager on status.

- Dispatches Operations Personnel and equipment assignments, according to Priority List, unless immediate knowledge dictates other priority responses.
- Coordinates Emergency Power Equipment distribution.
- Directs/oversees repairs as required.
- Assists Treatment Division with emergency disinfection, or plant operation, as required.
- Standby to aid in other Local Agency requests for assistance.

Treatment Supervisor:
Reports to SVWD Treatment Plant/Operations Center, at 70 El Pueblo Road. Continually advises/updates Operations Manager on Status.

- Coordinates Treatment Plant(s) operations.
- Determines & implements emergency disinfection procedures, as required.
- Obtains water quality samples in areas of concern for analysis, ASAP.
- Assists Distribution Division as availability permits.
- Standby to aid in other Local Agency requests for assistance.

All Other Field and Treatment Staff:
Report to SVWD Corporation Yard/Operations Center, 70 El Pueblo Road.

- Respond to following Priority:
    - Assignments by Field Supervisor, or Treatment Supervisor
    - Most Senior Person, or
    - Next Available Item on Priority List, or
    - Known Emergency Scenario if appropriate.

Appendix A3

Catastrophic Winter Storm Event

In the event of a winter storm staff will report to their assigned stations as follows.

General Manager:
Reports to Office of Emergency Services (OES) located at the City Hall, #1 Civic Center Drive, Scotts Valley, California, Santa Cruz County. Implements SVWD participation in area Disaster Response Plan.

Operations Manager/Assistant General Manager:
Reports to District Office located at #2 Civic Center Drive. Coordinates implementation of SVWD Emergency Response Plan.

Accountant/Office Supervisor and Office Staff:
Report to SVWD Office, located at #2 Civic Center Drive.

- Handle all phone calls, and customer service issues.
    - Check in with General Manager at OES
    - Continually advise/update Operations Manager on status of the situation.

Field Supervisor:
Reports to SVWD Corporation Yard/Operations Center, located at 70 El Pueblo Road. Continually advises/updates Operations Manager on status.

- Dispatches Operations Personnel and equipment assignments, according to Priority List, unless immediate knowledge dictates other priority responses.
- Coordinates Emergency Power Equipment distribution.
- Directs/oversees repairs as required.
- Assists Treatment Division with emergency disinfection, or plant operation, as required.
- Standby to aid in other Local Agency requests for assistance.

Treatment Supervisor:
Reports to SVWD Treatment Plant/Operations Center, at 70 El Pueblo Road. Continually advises/updates Operations Manager on Status.

- Coordinates Treatment Plant(s) operations.
- Determines & implements emergency disinfection procedures, as required.
- Obtains water quality samples in areas of concern for analysis, ASAP.
- Assists Distribution Division as availability permits.
- Standby to aid in other Local Agency requests for assistance.

All Other Field and Treatment Staff:
Report to SVWD Corporation Yard/Operations Center, 70 El Pueblo Road.

- Respond to following Priority:
    - Assignments by Field Supervisor, or Treatment Supervisor
    - Most Senior Person, or
    - Next Available Item on Priority List, or
    - Known Emergency Scenario if appropriate.

Appendix A4

Catastrophic Power Outage

In the event of a catastrophic power outage staff will report to their assigned stations as follows.

General Manager:
Reports to Office of Emergency Services (OES) located at the City Hall, #1 Civic Center Drive, Scotts Valley, California, Santa Cruz County. Implements SVWD participation in area Disaster Response Plan.

Operations Manager/Assistant General Manager:
Reports to District Office located at #2 Civic Center Drive. Coordinates implementation of SVWD Emergency Response Plan.

Accountant/Office Supervisor and Office Staff:
Report to SVWD Office, located at #2 Civic Center Drive.

- Handle all phone calls, and customer service issues.
    - Check in with General Manager at OES
    - Continually advise/update Operations Manager on status of the situation.

Field Supervisor:
Reports to SVWD Corporation Yard/Operations Center, located at 70 El Pueblo Road. Continually advises/updates Operations Manager on status.

- Dispatches Operations Personnel and equipment assignments, according to Priority List, unless immediate knowledge dictates other priority responses.
- Coordinates Emergency Power Equipment distribution.
- Directs/oversees repairs as required.
- Assists Treatment Division with emergency disinfection, or plant operation, as required.
- Standby to aid in other Local Agency requests for assistance.

Treatment Supervisor:
Reports to SVWD Treatment Plant/Operations Center, at 70 El Pueblo Road. Continually advises/updates Operations Manager on Status.

- Coordinates Treatment Plant(s) operations.
- Determines & implements emergency disinfection procedures, as required.
- Obtains water quality samples in areas of concern for analysis, ASAP.
- Assists Distribution Division as availability permits.
- Standby to aid in other Local Agency requests for assistance.

All Other Field and Treatment Staff:
Report to SVWD Corporation Yard/Operations Center, 70 El Pueblo Road.

- Respond to following Priority:
    - Assignments by Field Supervisor, or Treatment Supervisor
    - Most Senior Person, or
    - Next Available Item on Priority List, or
    - Known Emergency Scenario if appropriate.

Appendix A5

Fire

In the event of a fire staff will report to their assigned stations as follows.

General Manager:
Reports to Office of Emergency Services (OES) located at the City Hall, #1 Civic Center Drive, Scotts Valley, California, Santa Cruz County. Implements SVWD participation in area Disaster Response Plan.

Operations Manager/Assistant General Manager:
Reports to District Office located at #2 Civic Center Drive. Coordinates implementation of SVWD Emergency Response Plan.

Accountant/Office Supervisor and Office Staff:
Report to SVWD Office, located at #2 Civic Center Drive.

- Handle all phone calls, and customer service issues.
    - Check in with General Manager at OES
    - Continually advise/update Operations Manager on status of the situation.

Field Supervisor:
Reports to SVWD Corporation Yard/Operations Center, located at 70 El Pueblo Road. Continually advises/updates Operations Manager on status.

- - Dispatches Operations Personnel and equipment assignments, according to Priority List, unless immediate knowledge dictates other priority responses.
- Coordinates Emergency Power Equipment distribution.
- Directs/oversees repairs as required.
- Assists Treatment Division with emergency disinfection, or plant operation, as required.
- Standby to aid in other Local Agency requests for assistance.

Treatment Supervisor:
Reports to SVWD Treatment Plant/Operations Center, at 70 El Pueblo Road. Continually advises/updates Operations Manager on Status.

- Coordinates Treatment Plant(s) operations.
- Determines & implements emergency disinfection procedures, as required.
- Obtains water quality samples in areas of concern for analysis, ASAP.
- Assists Distribution Division as availability permits.
- Standby to aid in other Local Agency requests for assistance.

All Other Field and Treatment Staff:
Report to SVWD Corporation Yard/Operations Center, 70 El Pueblo Road.

- Respond to following Priority:
    - Assignments by Field Supervisor, or Treatment Supervisor
    - Most Senior Person, or
    - Next Available Item on Priority List, or
    - Known Emergency Scenario if appropriate.

Appendix A6

Freeze

In the event of a freeze staff will report to their assigned stations as follows.

General Manager:
Reports to Office of Emergency Services (OES) located at the City Hall, #1 Civic Center Drive, Scotts Valley, California, Santa Cruz County. Implements SVWD participation in area Disaster Response Plan.

Operations Manager/Assistant General Manager:
Reports to District Office located at #2 Civic Center Drive. Coordinates implementation of SVWD Emergency Response Plan.

Accountant/Office Supervisor and Office Staff:
Report to SVWD Office, located at #2 Civic Center Drive.

- Handle all phone calls, and customer service issues.
    - Check in with General Manager at OES
    - Continually advise/update Operations Manager on status of the situation.

Field Supervisor:
Reports to SVWD Corporation Yard/Operations Center, located at 70 El Pueblo Road. Continually advises/updates Operations Manager on status.

- Dispatches Operations Personnel and equipment assignments, according to Priority List, unless immediate knowledge dictates other priority responses.
- Coordinates Emergency Power Equipment distribution.
- Directs/oversees repairs as required.
- Assists Treatment Division with emergency disinfection, or plant operation, as required.
- Standby to aid in other Local Agency requests for assistance.

Treatment Supervisor:
Reports to SVWD Treatment Plant/Operations Center, at 70 El Pueblo Road. Continually advises/updates Operations Manager on Status.

- Coordinates Treatment Plant(s) operations.
- Determines & implements emergency disinfection procedures, as required.
- Obtains water quality samples in areas of concern for analysis, ASAP.
- Assists Distribution Division as availability permits.
- Standby to aid in other Local Agency requests for assistance.

All Other Field and Treatment Staff:
Report to SVWD Corporation Yard/Operations Center, 70 El Pueblo Road.

- Respond to following Priority:
    - Assignments by Field Supervisor, or Treatment Supervisor
    - Most Senior Person, or
    - Next Available Item on Priority List, or
    - Known Emergency Scenario if appropriate.

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** **Location**	*This equipment is available to assist in the execution of this AP.*
Specific Activities:		
I. Assess the Problem	A. Complete the following **Threat Warning Report Forms** according to the type of Threat Warning received. (Section XX of ERP). • **Security Incident Report Form** • **Witness Account Report Form** • **Phone Threat Report Form** *(to be filled out during actual phone call)*	*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*

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

POSSIBLE STAGE

	• **Written Threat Report Form** • **Water Quality / Consumer Complaint Report Form** • **Public Health Information Report Form** B. Complete **Threat Evaluation Worksheet** (Section XX 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.	*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.*
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 Section XX. 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 Section XX 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.*
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.	*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*

AP 1A - Threat of or Actual Contamination to Water System POSSIBLE STAGE		
	• 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.	*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 ***(enter predetermined time period here).***	*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] 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 Section XX of the ERP.* *The [Information Officer], [IO] is the only one authorized to make notifications to outside agencies.*
Equipment Identified:	**Equipment** **Location**	*This equipment is available to assist in the execution of this AP.*

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

CREDIBLE STAGE

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. *See* ERP Section XX for **System Shut Down Plan**. 6. Issue "Boil Water", "Do not Drink", or "Do not Use" orders and Press Releases as appropriate. See Section XX of ERP for **Press Release Forms**. 7. Initiate **Alternate Water Supply Plan** (ERP Section XX) 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. • Notify public that water is safe. • Notify outside agencies 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 microbiological analytical procedures may take*

AP 1B - Threat of or Actual Contamination to Water System CREDIBLE STAGE		
	• Return to normal operations. • Store water samples for ***(enter predetermined time period here).***	*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] 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	*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

	information to narrow down the 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 XX of the ERP.* *The [Information Officer], [IO], should make the notifications to the outside agencies.*
Equipment Identified:	**Equipment** **Location**	*This equipment is available to assist in the execution of this AP.*
Specific Activities:		
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.*

AP 1C - Contamination to Water System

CONFIRMED STAGE

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.cdc.gov/atsdr/index.html* *http://www.waterisac.org/* *EPA Water Contaminant Information Tool (WCIT) – under development*
II. Isolate and Fix the Problem	6. Take actions to isolate portions of system containing suspect water. See ERP Section XX for **System Shut Down Plan**. *7.* Shut down system if obvious or confirmed contamination warrants. *8.* Issue "Boil Water", "Do not Drink", or "Do not Use" orders and Press Releases as appropriate. See Section XX of ERP for **Press Release Forms**. 9. Initiate **Alternate Water Supply Plan** (ERP Section XX) 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.*
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	12. Consult with appropriate officials to develop a Remediation and Recovery Plan.	*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*

AP 1C - Contamination to Water System CONFIRMED STAGE		
to Safety	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).***	*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] should file an internal report for the Utility's 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 [UTILITY ABBREVIATION] 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 Section XX of the ERP.*
Initiation and Notification:	D. In cases where an adversary calls a [UTILITY ABBREVIATION] employee in advance that employee should complete the **Bomb Threat Checklist** OR **Phone Threat Report Form** found in Section VIII 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*

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.	*a partial or full basis. The [WUERM] will also decide when and to what extent to activate the EOC.*
Equipment Identified:	**Equipment** **Location**	*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, Section XX of ERP. 4. Isolate damaged facility from rest of water system, and take measures to bypass the damaged area if possible.	*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		
	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 **Alternate Water Supply Plan** (ERP Section XX) 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" orders and other Press Releases as appropriate. See Section XX 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. 17. Asses need for additional protection/security measures.	*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		
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 Section XX of the ERP.*
Equipment Identified:	**Equipment** **Location**	*This equipment is available to assist in the execution of this AP.*
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	*Notification phone numbers can be obtained from the Organization Contact List in*

AP 3 – Employee Assaulted with Weapon (Armed Intruder)		
	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.	*the Appendices as well as from Section XX 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 Section XX 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 Section XX 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 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	*See ERP Section XX.*

AP 3 – Employee Assaulted with Weapon (Armed Intruder)		
	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.	
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*	
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 XX of the ERP.*
Equipment Identified:	Equipment Location	*This equipment is available to assist in the execution of this AP.*

AP4 – SCADA Security

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 off line. 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	*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.* *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 process are not functioning*

AP4 – SCADA Security

	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 NIPC water sector warnings (*NIPC may contain additional protective actions to consider: http://www.NIPC.gov or https://www.infraguard.org for secure access infraguard members)*	*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. 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	*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 utilizing assistance from the proper authorities in command (FBI, EPA, Police, Computer Emergency Response Team, etc.).*

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	current levels.	
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 can not 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	
Initiation and Notification:	Notify immediately upon discovery of the attack: • [WUERM], • Data (IT) Manager 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] 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.*
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.	*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,*

AP5 – IT Security		
	• 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.	*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** **Location**	*This equipment is available to assist in the execution of this AP.*
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	**Note:** Because the approach to addressing an incident can vary depending on the nature of the	*Note: Be prepared to revise the response plan as necessary based on*

AP5 – IT Security

Problem	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 • CD-ROMs • Printouts	*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 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	*Serves to further diagnose the incident* *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*

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	down entirely.	*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 more stealthy 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 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	*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*

AP5 – IT Security		
	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.	*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 Section XX of the ERP.*
Equipment Identified:	**Note only trained personnel should attempt to use any emergency tools or Personal Protective Equipment (PPE)** **Equipment** **Location** 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. 18. Hold post-incident discussions to include all responders and actors in the response and	*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 should be separately*

AP 6 – Chlorine Release		
	recovery	*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 (back up 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 XX of the ERP.*
Equipment Identified:	**Equipment** **Location** Mobile battery-powered radios Mobile/cellular phones Flashlights Spare batteries Accessory requirements (cables for generators, transformers, load banks, bus bars, distribution	*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		
	panels, feeder panels, fuses, outlets, load centers, etc) Emergency kits	
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 back up generators as necessary for key components: Note: Uninterruptible Power Supply (UPS) for SCADA and computers, battery back-up for Remote	*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*

AP 7 – Power Outage

	Terminal Unit (RTU) may only supply power for a few hours.	*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.*
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" orders and Press Releases as appropriate. See Section VIII.A.1 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	

AP 7 – Power Outage

	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 levels are adequate and the backup generators are functional.	*Ask your vendors about specific limitations of your equipment. Find out how long it would take to repair or replace damaged equipment.*
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.*

AP 7 – Power Outage	
VI. AP-7 Revision Dates	

AP 8A – Natural Event (Flood)		
AP Summary:	This Action Plan applies to flooding 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 flood events, as they can involve loss of electrical power supply, damage of structures and equipment, disruptions of service, and injuries to utility personnel.	
Initiation and Notification:	This AP should be initiated upon official notification of either a flood "watch" (a flood is possible in your area), or a flood "warning" (flooding is already occurring or will occur soon in your area). Such information will almost certainly be issued in the form of forecasts from the National Weather Service (NWS) and other governmental agencies. Also initiate if actual flooding is discovered. Notify • [WUERM] • [Alternate WUERM] The [WUERM] will make the decision to contact local response authorities to request possible assistance.	*Links to specific RFCs can be found at the following website: http://www.nws.noaa.gov/oh/hic/rfc.html* *The NWS maintains 13 regional River Forecast Centers (RFC) that are responsible for issuing flood forecasts synthesized from hydro-meteorological data. These centers offer current river conditions and observations, as well as forecast and guidance for both major river and flash floods, hydrographs for gauging stations, and flood outlook potentials. Be aware that floods often occur without local precipitation as a result of precipitation upstream.* *Flash flood guidance values can also typically be obtained via your local RFC. These values show data suggesting the amount of rain necessary over 1-, 3-, and 6-hour periods that could cause flash floods.* *While major floods can take several hours to days to develop, flash floods can take only a few minutes to a few hours to develop.* *Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.*

AP 8A – Natural Event (Flood)		
Equipment Identified:	**Equipment** **Location** Binoculars	*This equipment is available to assist in the execution of this AP.*
Specific Activities:		
I. Assess the Problem	**If a Flood Watch or Warning is received:** 1. Contact local representative of NWS for additional information on exact location and probable extent (stage) of flooding, relative to utility facilities. 2. Use site maps or other available information to assess location of all facilities for location in flood plain. 3. Prioritize pre-flooding activities on basis of flooding potential (in part, based on location). 4. If flooding has already occurred: • Conduct site assessment from nearest safe location. • Based on peak flood stage, predict and build inventory of equipment likely to be most affected. • List equipment needed to restore water service when flood waters recede.	*Flood damage is proportional to the to the volume and the velocity of the water. Floods are extremely dangerous because they destroy through inundation and soaking as well as the incredible force of moving water. High volumes of water can move heavy objects and undermine roads and bridges. Flooding can also facilitate other hazards such as landslides, or cause other hazards such as material hazard events*
II. Isolate and Fix the	The following steps should be taken in preparation for the event:	*Steps in advance of flooding obviously will be different than steps in reaction to flooding. Both may be needed for any one flooding*

AP 8A – Natural Event (Flood)

Problem	1. Activate Emergency Operations Center (EOC). 2. Assemble essential personnel and designate duties, such as: • Elevate in-place or remove water-sensitive equipment within structures to prevent flood damage. • Anchor fuel tanks. • Elevate electrical system components. • Take appropriate flood-proofing steps (sandbags or other). • Install sewer backflow valves. • Flood-proof or elevate heating, cooling, and ventilating equipment. • Assemble and stage mobile stand-by generators and auxiliary water pumps.	*event.*
II. Isolate and Fix the Problem	3. Notify neighboring utilities or other sources of emergency response support if manpower or equipment will be needed. 4. The [IO] is to notify customers, media, and state and local authorities that service may be disrupted and/or that demand reductions may be necessary. 5. Pre-test and/or initiate emergency communications plan 6. Consider shut-down if flooding appears imminent.	*Flood water may have to be pumped out of facilities before utility equipment can be restored.* *Decision to shutdown must balance protection of utility equipment and maintenance of fire flows.*
III. Monitoring	Observe the following recommended practices during the flood event: • Take pictures of the damage, both of buildings and their contents, for insurance claims.	*If it is moving swiftly, even water six inches deep can knock an individual off their feet. Many people are swept away wading through floodwaters, resulting in injury or death. Floodwaters may still be rising. Staff may not be able to see on the surface how fast floodwater is moving or see holes and*

AP 8A – Natural Event (Flood)		
	• Instruct Utility personnel to avoid floodwaters whenever possible. • If a vehicle stalls in rapidly rising waters, abandon it immediately and climb to higher ground. Vehicles can be swept away in two feet of water. • Stay out of any building if floodwaters remain around the building. • Avoid smoking inside buildings. Smoking in confined areas can cause fires. • Wear sturdy shoes. The most common injury following a disaster is cut feet. • Use battery-powered lanterns or flashlights when examining buildings. Battery-powered lighting is the safest and easiest, preventing fire hazard for the user, occupants, and building. • Look for fire hazards. There may be broken or leaking gas lines, flooded electrical circuits, or submerged furnaces or electrical appliances. Flammable or explosive materials may travel from upstream. Fire is the most frequent hazard following floods. • The [WUERM] or [IO] is to communicate with customers and the Local Emergency Planning Committee (LEPC) as to current conditions.	*submerged debris.* *Floodwaters often undermine foundations, causing sinking, floors can crack or break and buildings can collapse. Buildings may have hidden damage that makes them unsafe such as gas leaks or electric hazards.*
IV. Recovery **And Return to Safety**	Once floodwaters recede, the following may be of relevance: • Check insurance policy for procedures to recover losses, including the national Flood Insurance Program. • Inspect foundations for cracks or other damage. • Check power lines for damages • Arrange for alternate source of electrical power or fuel for diesel generators, sufficient for period of	*More information can be found here:* *http://www.fema.gov/nfip* *Cracks and damage to a foundation can render a building uninhabitable.* *See AP-7 Power Outage* *Contaminated floodwater contains bacteria and germs. Eating foods exposed to flood waters can make personnel very sick.* *In the longer-term, mitigation against loss of life and property caused by flood events is principally accomplished before the events,*

AP 8A – Natural Event (Flood)		
	outage following flood. See AP-7 Power Outage. • Throw away all food that has come into contact with floodwaters. • Inspect, clean, rebuild, replace all affected equipment as necessary • Contact state and local authorities to determine if there are any restrictions on disposal of materials and debris removed from the site or if a temporary discharge permit (NPDES or other) is needed for the water pumped from tanks and other flooded structures.	*through sensible floodplain management and regulation. This involves strategies to modify flooding and to modify infrastructure to reduce likelihood of damage.* *Guidelines to a variety of flood-proofing and elevation methods are available from FEMA and NOAA.*
V. Report of Findings	Assemble relevant personnel to review effectiveness of action plan and reinforce lessons learned.	
VI. AP-8A Revision Dates		

AP 8B – 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 Section XX of the ERP.*

AP 8B – Natural Event (Winter Storm)

Equipment Identified:	Equipment Location	*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. • Secure windows and doors.	

AP 8B – Natural Event (Winter Storm)		
	• 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 • Cold-related incidents / concerns	

AP 8B – Natural Event (Winter Storm)

	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. • Walk carefully on snowy, icy, sidewalks.	

AP 8B – Natural Event (Winter Storm)		
V. Report of Findings	Assemble relevant personnel to review effectiveness of action plan and reinforce lessons learned.	
VI. AP-8B Revision Dates		

AP 8C – Natural Event (Hurricane / Tropical Storm)

AP Summary:	This Action Plan applies to Hurricane / Tropical 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:	Initiation of the hurricane/ tropical storm AP will occur when the NWS has determined a "Hurricane Watch" is in effect. The general terminology they utilize is as follows, in order of increasing severity: • **Advisory**: Hurricane and storm information is disseminated to the public every six hours. • **Special Advisory**: Information is disseminated when there is significant change in storm-related weather conditions. • **Gale Warning**: Sustained winds of 35-54 mph and strong wave action are expected. • **Storm Warning**: Sustained winds of 55-73 mph are expected. • **Hurricane Watch**: There is a threat of hurricane conditions within 24-36 hours. • **Hurricane Warning**: A hurricane is expected to strike within 24 hours or less, with sustained winds of 74 mph or more and dangerously high water. • **Tropical Disturbance**: A moving area of thunderstorms is in the tropics. • **Tropical Depression**: An area of low pressure, rotary circulation of clouds and winds up to 38 mph is identified. • **Tropical Storm**: A storm characterized by counterclockwise circulation of clouds and winds 39-73 is brewing. The Atlantic and Caribbean hurricane season runs from June 1 through November 30, with the Eastern Pacific hurricane season running from May 15 though November 30.	*See National Hurricane Center website here:* *NHC* *Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.*
Equipment Identified:	**Equipment** **Location**	*This equipment is available to assist in the execution of this AP.*

AP 8C – Natural Event (Hurricane / Tropical Storm)

Specific Activities:		
I. Assess the Problem	It is expected that 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.	
II. Isolate and Fix the Problem	In preparation for the hurricane, the following general steps are to be followed, as per the US EPA's Water Security Division: **General:** 1. Line up and schedule emergency operations and clean up crews. 2. Notify State and Federal Agencies (FEMA and others) of location and telephone numbers of the emergency operating center or command post for the utility. For public water systems, be sure to line up contacts to request emergency water supply, if necessary. 3. Notify media where to access information and press advisories. 4. Arrange for food and water for the crews. 5. Notify and set up clear lines of communication with local authorities, such as police and fire in case of an injury or other emergency. 6. Make arrangements with the local power utility to be prepared to disconnect power to the plant if plant is evacuated or if power lines are downed and to restore power as a primary customer. 7. Make arrangement with local companies to purchase materials and supplies and to borrow/lease heavy equipment needed to make repairs to the plant. 8. Make arrangement with local companies to have materials and chemicals delivered to the plant as soon as it is safe and	

AP 8C – Natural Event (Hurricane / Tropical Storm)

	units are repaired and ready for operation.	
II. Isolate and Fix the Problem	**Grounds and Common Areas:** 1. Check inventory of emergency repair equipment and supplies (i.e., sand and sand bags, hand shovels, power equipment, fuel, batteries, flashlights, portable radio, first aid kits, etc.). Resupply if possible. 2. Stock service vehicles with equipment and supplies. 3. Fuel all vehicles and emergency generators. 4. Move service vehicles to high ground (above expected flood crest). 5. Check all communications equipment and charge or replace batteries (i.e., two way radios, cell phones, walkie-talkies, pagers, etc.). 6. Sand bag critical areas. 7. Board up critical windows and doors to prevent wind damage. 8. Shut down exposed pipes at river crossing to prevent discharge of raw sewage or to prevent loss or contamination of potable water, if the pipes brake.	
II. Isolate and Fix the Problem	**Administration and Laboratory Buildings:** 1. Remove portable electrical equipment and small motors from the flood zone. 2. Remove all sensitive laboratory equipment from the flood zone, where possible. 3. Remove or store computers in a safe area. 4. Remove or store all important records in a safe area. 5. Move vital records such as built drawings, wiring diagrams, etc. to the emergency operations center or command post. 6. Remove or store furnishings in a safe place, when practical. 7. Disconnect electrical power to the building, if it is evacuated.	
II. Isolate and	**Treatment Plant and Pumping Stations:**	

AP 8C – Natural Event (Hurricane / Tropical Storm)

Fix the Problem	1. Fill empty tanks with water to prevent floating. 2. Disconnect power to all units in the flood zone. Have the power utility disconnect power to the entire plant, if ordered to evacuate the facility. 3. Remove or move chemicals to a safe area. If chemicals are removed from an underground or above ground tank, fill the tank with water to prevent floating. 4. Remove fuel from under ground tanks to prevent contamination of the fuel and to protect the environment. If possible move above ground fuel storage tanks to a safe area (fuel will be need for emergency and plant vehicles until new supplies arrive). If it is not practical to move above ground fuel storage tanks, remove the fuel and fill tanks with water. 5. Remove electrical motors, where possible. 6. When it is not practical to remove large motors, wrap the motors in plastic and seal as tight as possible. This will not keep the motor from getting wet, but will protect the motor from silt, mud, and dirt getting into the windings. Submerged motors can be washed with clean water and dried, and in most case restored to service. 7. Remove shop tools and electrical hand tools to the emergency operations center or command post. 8. For drinking water systems, as appropriate try to have elevated storage at full capacity.	
III. Monitoring	1. Emergency power should be utilized to the extent necessary and available to maintain pressure within the distribution system. 2. Systems which have been flooded or otherwise had bacterial quality compromised must be disinfecting their water system and maintaining chlorine residuals throughout the water system. 3. Where such flooding, loss of pressure, or other damage has occurred resulting in potential bacterial compromise, [UTILITY ABBREVIATION] should Issue "Boil Water", "Do not Drink", or "Do not Use" orders and Press Releases as appropriate. See Section XX of ERP for **Press Release Forms**	

AP 8C – Natural Event (Hurricane / Tropical Storm)

	until further testing can be conducted and the situation normalizes. If necessary, a "Boil Water" notice must be announced as soon as possible, and realize that it may be necessary to issue a "Boil Water" notice before the Health Department can be reached.	
IV. Recovery And Return to Safety	In the aftermath of the hurricane, the following general steps are to be followed, as per the US EPA's Water Security Division: • **General:** 1. For water utilities, the first priority should be restoring fire flow and pressure. 2. For wastewater utilities, the first priority should be to restore primary treatment and disinfection. 3. Line up and schedule emergency operations and clean up crews 4. Make arrangements with the local power utility to repair and restore power to the plant as a primary customer. Power should not be turned on to buildings or process units until the floodwater has been removed and the area is safe to occupy. 5. Notify State and Federal Agencies when the facility is back in operation. 6. The [IO] is to notify the media where to access information and press advisories, such as boil water orders, beach closures, and other public instructions. 7. Make arrangements with local companies to deliver materials and supplies and to provide heavy equipment needed to make repairs to the plant. 8. Make arrangements with local companies to deliver materials and chemicals as soon as it is safe, and facilities are prepared and ready for operation. 9. Contact State and local authorities to determine if there are any restrictions on disposal of materials and debris removed from the site or if a temporary discharge permit (NPDES or other) is needed for the water pumped from tanks and other flooded structures.	
IV. Recovery And Return to Safety	**Grounds and Common Areas:** 1. Inspect all service vehicles for water and wind damage. 2. Check site including remote locations for visible damage to power lines and above ground structures.	

AP 8C – Natural Event (Hurricane / Tropical Storm)

	3. Inspect all sewage collection systems for damage and blockages. Most collection systems will require cleaning after a flood. 4. Inspect all exposed pipes, especially at river crossings, for leakage. Broken pipes can discharge raw sewage into rivers and streams. Broken water pipes including service connections to severely damaged structures can provide a source of contamination and/or pressure loss to the potable water system. 5. Check all remote control systems, including telemetering, telephone, and SCADA, etc.	
IV. Recovery And Return to Safety	**Administration and Laboratory Building:** 1. Check windows and doors for wind damage. Replace and repair as needed to prevent further damage and to provide security. 2. Check roofs for water and wind damage. Make repairs as needed to prevent further damage. 3. Pump out and remove silt, mud and sand from basements and other below grade areas. 4. Clean and disinfect masonry walls with bleach solution to prevent the growth of mold and mildew. 5. Remove all plasterboard, wallboard, and sheet rock that is wet or shows signs of water damage. Clean and disinfect all the interior studs and other support structures behind the damaged walls with bleach solution to prevent the growth of mold and mildew. 6. Inspect all switchgear, motor control centers, electrical boxes, junction boxes, and other electrical equipment in flooded areas for silt and sand or lose connections. Boxes should be cleaned and dried with portable or hand held dryers before the electrical power is restored. 7. Thoroughly clean all wet carpets. It is advisable to remove carpets for cleaning. If removing the carpets is not practical, carpets should be steam cleaned, disinfected and mechanically dried. The carpets also should be treated with an anti-bacterial agent to prevent the growth of mold and	

AP 8C – Natural Event (Hurricane / Tropical Storm)

	mildew. 8. Check and reset fire alarms, door alarms, clocks and other control and measurement devices. 9. Start sampling, monitoring and testing, including the water distribution system for coliform bacteria, as soon as the laboratory is operational.	
IV. Recovery And Return to Safety	**Treatment Plant and Pumping Stations:** 1. Pump out all tanks, wet wells, dry wells, channels, vaults and pits to remove silt, mud, sand, and debris. In some cases washing down walls will be necessary before returning to service. Make sure you have all the necessary permits to dispose of the collected material and for discharging the wastewater. 2. Inspect all equipment, clean and lubricate. 3. Inspect all switchgear, motor control centers, electrical boxes, junction boxes, and other electrical connections in flooded areas for silt and sand or lose connections. Boxes should be flushed with fresh water and dried before the electrical power is restored. Breaker boxes and other contacts may need additional cleaning to remove corrosion, especially if the damage was caused by salty or brackish water. 4. Inspect all electric motors. Generally, it is more cost-effective to replace small flood damaged motors than to try and repair them. In some cases, motors can be flushed with de-ionized water. Be sure the motor is thoroughly (oven dried) dry before restoring power. Starters and other electrical controls may also be damaged and will need to be replaced. 5. Large motors that were not removed but were wrapped in plastic should be inspected for damage. Be sure the motor is thoroughly dry before restoring power. However, having the motors cleaned and dried by motor or armature specialists is recommended. Starters and other electrical controls may also be damaged and need to be replaced. 6. Large horsepower motors that were not wrapped in plastic should be removed and sent out for cleaning and drying.	

AP 8C – Natural Event (Hurricane / Tropical Storm)		
	Check with the motor or armature specialists in your area. They often have equipment to clean and ovens to dry motors under controlled temperatures.	
IV. Recovery And Return to Safety	7. Inspect and clean debris from all air intakes and vents. 8. Inspect all chemical storage and feed equipment to make sure that the equipment is undamaged and is properly calibrated. 9. Chemical and fuel tanks that were filled with water should be pumped out and restocked with fresh materials. Caution: Water from fuel tanks may still contain hydrocarbon residues and may require special handling and disposal. 10. Check and refuel emergency generators in the event of future power outages. If generators and diesel engines have been flooded, they will need to be overhauled or engines rebuilt. Getting emergency power capability resorted, should be a high priority. Renting portable generators or pumps should also be considered.	
V. Report of Findings	Assemble relevant personnel to review effectiveness of action plan and reinforce lessons learned.	
VI. AP-8C Revision Dates		

AP 8D – 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 Section XX of the ERP.*
Equipment Identified:	Equipment Location	*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. • 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	*Be prepared for aftershocks. Although smaller than the main shock, aftershocks cause additional damage and may bring weakened structures down. Aftershocks can occur in the first hours, days,*

AP 8D – Natural Event (Earthquake)

	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.	*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. • 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.	

AP 8D – Natural Event (Earthquake)		
	• 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 [IO] 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.	*It is recognized that many utilities will already have an action plan in place to address this event.* *Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.*
Equipment Identified:	**Equipment** **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: **Normal Conditions** – Normal conditions apply. Water is	

AP 9 – Water Supply Interruption		
	available; but in arid environments there are specific watering days for various addresses or penalties for excess watering.	
II. Isolate and Fix the Problem	**Water Alert** -- A 5% or greater reduction in water usage is to meet the immediate needs of customers. Voluntary conservation encouraged. The water shortage situation is explained to the public and voluntary water conservation is requested (see standard press releases). [UTILITY ABBREVIATION] maintains an ongoing public information campaign consisting of distribution of literature, speaking engagements, bill inserts, and conversation messages printed in local newspapers. **Water Warning** -- A 15% or greater reduction in water usage is to meet the immediate needs of customers. Water supply shortage is moderate. The utility aggressively continues its public information and education programs. Consumers are asked for a 15 percent or greater voluntary or mandatory water use reduction. Additional landscape irrigation restrictions may be implemented. Businesses may be asked not to serve water in restaurants unless requested. **Water Crisis** – A 30% or greater reduction in water usage is to meet the immediate needs of customers. Water supply shortage is severe. Additional requirements may include: Dramatic landscape irrigation restrictions; Restrictions on use of potable water to fill or refill new swimming pools, artificial lakes, ponds, or streams until the water crisis is declared over; Prohibition of water use for ornamental ponds and fountains; Restrictions on washing of automobiles and equipment (such as requiring that it shall be done on the lawn or at a commercial establishment that uses recycled or reclaimed water); Restriction of flushing of sewers or fire hydrants to cases of emergency and essential operations, and; Introduction of a permanent water meter on existing non-metered services and/or flow restrictors on existing metered services at customer's expense upon receipt of the second water violation.	
II. Isolate and Fix the Problem	**Water Emergency** -- A 50% or greater reduction in water usage is to meet the immediate needs of customers. Water shortage is critical. Additional requirements may include: Disallowing all landscape irrigation; Disallowing potable	

AP 9 – Water Supply Interruption		
	water use for construction purposes such as dust control, compaction, or trench jetting. In addition, large industrial users, for example canneries and other food manufacturers, may be required to reduce or cease all water use. 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.	
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 Section XX.* *See ERP Section XX 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 order 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 order, 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 order may be lifted once the	*See ERP Alternative Water Sources, Section XX.* *See boil order release Section XX, Press Releases.* *See boil order release* *Section XX, Press Releases.*

AP 9 – Water Supply Interruption		
	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.	
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 Section XX 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.	*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.*
II. Isolate and Fix the Problem	**Threat received via Telephone** 1. Remain Calm	*It is always desirable that more than one person listens in on the call. To do this, have a pre-established signaling system in*

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

	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 [UTILITY ABBREVIATION] 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 [UTILITY ABBREVIATION] policy on searching for the bomb. 7. Implement the [UTILITY ABBREVIATION] policy evacuation. 8. **IF** evacuating building, **THEN** Take the **Bomb Threat Checklist** with you.	*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 [Information Officer], [IO].** • **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 to evacuate and then call in the threat.*

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-worker call 911. 4. Co-worker call [WUERM] 5. Create a description of the adversary using a **Suspect Description Form**. See ERP Appendix Section XX. 6. Direct any media questions to the [Information Officer], [IO].	
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.	
V. Report of	Debrief after every bomb threat response to	*The Utility [Security Director] should file an internal report for*

AP 10A – Bomb Threat (Telephone / In Person)		
Findings	improve procedures.	*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 Appendices as well as from Section XX of the ERP.*
Equipment Identified:		
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 crystalization 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 [UTILITY ABBREVIATION] policy on evacuation. 7. Direct any media questions to the [Information Officer], [IO]. **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 Section XX 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*

AP 10C – Bomb Threat (Written Threat Received)

	5. Do not alarm others; however contact [WUERM] immediately. 6. Contact the local police. 7. Implement the [UTILITY ABBREVIATION] policy on searching for the bomb. 8. Implement the [UTILITY ABBREVIATION] 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 [Information Officer], [IO].	*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 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**	***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)		
	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.	
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		

Appendix B
Critical Clients

Medical Groups
Santa Cruz Medical Clinic - 4663 Scotts Valley Dr
(831) 458-6330 (458-6335)

Resneck-Sannes, David MD - 5403 Scotts Valley Dr # A
(831) 438-5222

Ellett, Sarah - Whispering Pines Med Clinic - 223 Mount Hermon Rd # 10
(831) 440-1385

Dentist
Estrada, David DDS - 4736 Scotts Valley Dr # C
(831) 438-0554

Ebrahimian, Max DDS - 4738 Scotts Valley Dr # B
(831) 438-1322

Black Jr, David W DDS - 4736 Scotts Valley Dr # C
(831) 438-0554

Graf, Steven J DDS - 4738 Scotts Valley Dr # C
(831) 438-5052

Tsai, Wandy W DDS - 5268 Scotts Valley Dr
(831) 438-8503

Police
SV Police Department 438-2326

Fire Department
SV Fire Department 438-0221

Retirement Homes
Scotts Valley Senior Ctr - 370 Kings Village Rd
(831) 438-8666

Renaissance At Oak Tree Villa - 100 Lockwood Ln
(831) 438-7533 (SVWD SUPPLIES ONLY FIRE PROTECTION)

Schools
Vine Hill Elementary School - 151 Vine Hill School Rd
(831) 438-1090

Scotts Valley Middle School - 8 Bean Creek Rd
(831) 438-0610

Scotts Valley High School

(831) 439-9555 555 Glenwood Dr

Scotts Valley Unified School
(831) 438-1820 4444 Scotts Valley Dr # 5b

Baymonte Christian School - 5000 Granite Creek Rd # B
(831) 438-0100

Family Montessori School - 1283 Mount Hermon Rd
(831) 335-7386

Day Care
A Child's Reflection - 106 Vine Hill School Rd
(831) 438-4813

Baymonte Christian Prschl Too - 4901 Scotts Valley Dr
(831) 440-9248

Baymonte Christian School - 5000 Granite Creek Rd # B
(831) 438-0100

Circle Of Friends Preschool - 111 Navarra Dr
(831) 461-1366

Early Childhood Learning Ctr - 800 Bethany Dr
(831) 438-7980

Fuzzy Bears Preschool & Day
(831) 438-3555

In Kirsten's Care - 300 S Navarra Dr
(831) 439-8721

Kids Art - 226 Mount Hermon Rd # D
(831) 439-9233

Kidzacademy
(831) 438-8274

Montessori Scotts Valley - 123 S Navarra Dr
(831) 439-9313

Scotts Valley Children's Ctr - 255 Mount Hermon Rd # B
(831) 461-9330

Appendix C
Emergency Phone Numbers

AGENCY	PHONE NUMBER	CONTACT	INFORMATION
Emergency	911		
Emergency Services (911)	429-1580		This is 911
City of Scotts Valley			
SV Fire Department	438-0221		438-0211
SV Police Department	438-2326		Police number
SV Police Department	438-2323		City number goes to police
SV Police Department	440-5670		Police number
SV Public Works –Maintenance	438-8689	Dave Ludy	
SV Public Works – Engineering	438-5854	Majid	Kim Marie is draftsperson
SV Wastewater treatment Plant/Tertiary Treatment Plant	438-0732	Scott/Paul	
County of Santa Cruz			
County Office of Emergency Services	458-7150		Emergency Alert System
Hazardous Materials/Environmental Health	454-2022		
Public Works	420-5160		Call 911 after hours
State Agencies			
DPH – Monterey – District Engineer	(831) 655-6933	Betsi Lichti	Cell (831) 236-3258
DPH – Monterey Office – Sanitary Engineer	(831) 655-6942	Regina Grimm	Home Phone (831) 884-0419
CDC Emergency Hotline	(770) 488-7100		For bioterrorism questions call (404) 639-0385
Regional Water Quality Control Board	(805)542-4649 FAX: (805)788-3532	Higgins	
Water Districts			
San Lorenzo Valley Water District	338-2153		
Lompico Water	335-5200 (Office)		429-7743 (Emergency)
Citizens Water	335-1915 (Office)		335-5260 (call center)
Manana Woods	438-5961		Message machine
Santa Cruz Water	420-5200 (Office)		420-5220 (Emergency)
Forest Lake Water	335-5774		
Soquel Creek Water District	475-8500		Front Desk/After Hours
Soquel Creek Water District	688-2288		Non-public number
Aromas Water	726-3155		

Castroville Water	633-2560		
Central Water	688-2767		Aptos Foothills
Pajaro Valley Water	722-9292		
Services			
PG&E	(800) 743-5000 Emergency/Info/Customer Service		426-8300 688-1918
PG&E	(800) 743-5002 Power Outage Info/Support		
PG&E	(415) 973-7000 Corporate number.		
SBC Phone Company	611		(800) 332-1321
Soil Control Laboratory	724-5422		
Devco Oil Inc.	(831) 423-2121		Diesel Supplier
Hutchinson and Bloodgood	(831) 724-2441	Steve Noll	Internet/Intranet Tech
SyCal Engineering	(650) 246-1850	Doug Martinsen	SCADA programmer
MWH Laboratories	(626) 386-1100,(800)566-LABS		Lab# (916) 652-4556
Sequoia Analytical	(408)776-9600 (Fax 782-6308)		
Local Radio Stations			
KPIG	722-9000 FAX:722-7548		Emer.Serv.Contact Station
KUSP	476-2800 FAX:476-2802		
KION	754-1512 FAX:796-4020		
KSCO	475-1080 FAX:475-2967		
KWAV	476-2800		
KDON	754-3090		
KGO	(415) 954-7777 FAX: (415) 954-8686		
Local Television Stations			
KSBW	422-8206,FAX:422-0124		Alternate: 426-3888
KION	757-6397		Newsroom (408)247-7560
KCBA	422-3500		
Local HAM Radio Operators			
ARES	(831) 429-1290	Cap Pennell	See attached list of addresses/phone numbers
Local Hospitals			
Dominican Hospital (Santa Cruz)	462-7700		
Community Hospital (Watsonville)	724-4741		

Santa Cruz Medical Clinic: Scotts Valley	458-6330		4615 Scotts Valley Drive
Santa Cruz Surgery Center (Santa Cruz)	462-5512		
Sutter Maternity & Surgery Center	477-2200		
Other			
American Red Cross:	462-2881		
Poison Control Center	1-800-662-9886		
Centers for the Disease Control and Prevention:	Phone: 800-311-3435		
Toxic Chemical and Oil Spills	1-800-698-6942		
Shortwave	463.775 MZ		

Appendix D
Emergency Operations Center

ACTION CHECK LIST

Water District Responsibility:

1. Call back personnel as necessary.
2. Inspect facilities for damage (i.e., water tanks. Dumping stations, lines, etc.)
3. Provide water for Emergency Services.
4. Redirect water where necessary
5. Coordinate with Fire Branch for water needs.
6. Coordinate with Public Works for mutual aid purposes.
7. Evaluate short term and long term needs.
8. Check water lines for breaks.

EOC TELEPHONE DIRECTORY

City hotline:	438-6857
County hotline:	458-7108
Police hotline:	461-0867
Fire hotline:	461-0870

Command Section: 440-5678 X-189
- Director of Emergency Services
- P.I.O.
- Liaison Officer
- Safety Officer
- Legal Officer

Operations Section: 440-5678 X-190
- Fire/Rescue
- Law Enforcement
- Public Works
- Water District
- Care/Shelter
- Medical/Casualty
- Schools

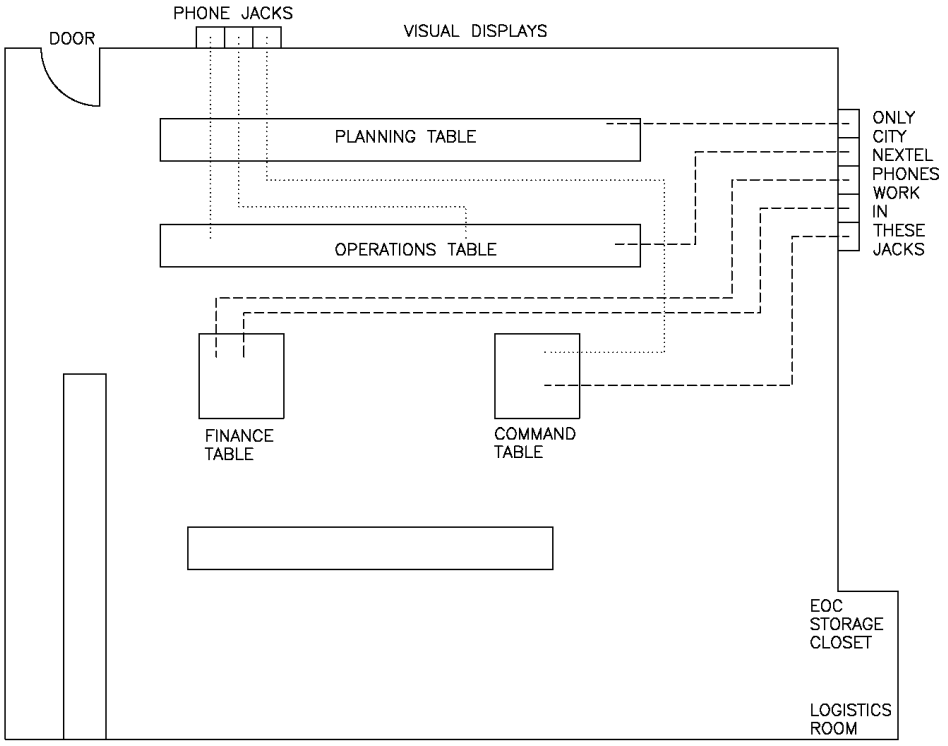
Planning Section: 440-5678 X-191
- Situation room
- Damage Assessment
- Document unit
- Volunteer unit

Logistics Section: 440-5678 X-604 or 607

Supply Unit
Facilities Unit
Transportation Unit\
Food unit
Equipemnt/Fuel
Communications

Finance Section: 440-5678 X-192
Compensatory/claims
Time unit
Cost unit
Procurement unit

ONE CIVIC CENTER DRIVE
SCOTTS VALLEY, CA
COUNCIL CHAMBERS



TELEPHONE LINES
(USE SMALL PHONES IN EOC STORAGE CLOSET)

TELEPHONE LINES
(USE PHONE UNITS FROM CITY HALL)

City of Scotts Valley
Emergency Operations Center Phone Directory

COMMAND SECTION	440–5678 Ext. 189
OPERATIONS SECTION	440–5678 Ext. 190
PLANNING SECTION	440–5678 Ext. 191
FINANCE SECTION	440–5678 Ext. 192
LOGISTICS SECTION	440–5678 Ext. 604 & 607
City Hotline	438–6857
County Hotline	458–7108 DO NOT GIVE OUT
Police Hotline	461–0807 DO NOT GIVE OUT
Fire Hotline	461–0870

Appendix E
Public Notices and Press Releases

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 California Department of Health Services is advising public water utilities to increase chlorine residuals in areas subject to low pressure or outages.

6. The California Department of Health Services 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.

FECHA:

ORDEN DE HERVIR EL AGUA

Hierva su Agua antes de Usarla

Falta de seguir este aviso podría tener resultados estómago o enfermedad intestinal

Debido a la [falta de agua (water outage), falta de electricidad (power outage), inundacion (flood), incendio (fire), temblor (earthquake) or other emergency], durante [date, month, etc.], el Departamento de California de Servicios de Salud en conjunción con la [City, water system name] y el Condado de [County name] esta aconsejando a todos usuarios de el sistema de [water system name] que hiervan el agua de canilla o usen agua embotellada para beber y cocinar como medida de seguridad.

Que debo hacer?

NO BEBA EL AGUA SIN ANTES HERVIRLA. Hierva toda el agua, **déjela hervir por un minuto**, y déjela reposar antes de usarla, o utilize agua embotellada. Agua hervida o embotellada debe ser usada para beber y para preparar la comida hasta el próximo aviso. Hierviendo morta a bacteria y otros organismos en el agua. [or Este es el metodo preferido para asegurar que el agua esta segura para beber.]

Optional alternative to include for prolonged situations where it fits.

- Otro método de purificación del agua para los residentes que no tengan gas o electricidad disponibles es utilizar blanqueador líquido de uso doméstico (Clorox®, Purex®, etc.). Para hacerlo, añada 8 gotas (o 1/4 cucharadita) de blanqueador por galón de agua clara, o 16 gotas (o media cucharadita) por galón de agua turbia, mézclelo bien y déjelo descansar 30 minutos antes de utilizarlo. Este procedimiento de purificación causa que el agua huela y tenga sabor a cloro, lo que indica que ha sido desinfectada de manera adecuada.
- También se puede utilizar tabletas de purificación del agua siguiendo las instrucciones del fabricante.
- Optativo: Hay agua potable disponible en los siguientes sitios: [List locations]
  Traiga un recipiente limpio para el agua (con una capacidad máxima de 5 galones).

Le informaremos cuando las pruebas demuestren que no hay bacterias y que usted ya no necesita hervir su agua. Anticipamos que resolveremos el problema el [date of expected resolution in Spanish day-month-year].

Para mas información, por favor póngase en contacto con:
Contacto del sistema de agua: [contact name] al [phone number] o escribiendo a [mailing address].
Departamento de Salud de California: XXX-XXX-XXXX.
Condado de [county name]: [XXXXXX County at (XXX) XXX-XXXX].

Por favor comparta esta información con otros que pueden tomar de esta agua, colocando este aviso en lugares visibles, o remitiéndolo por correo, o entregandolo manualmente. Es de particular interés distribuir este aviso ampliamente si usted lo recibe representando un negocio, un hospital u hogar de infantes u hogar de ancianos o comunidad residencial.

Date:

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 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 [Water System Name] due to a recent [intrusion; break-in] at [one of the wells; our treatment plant; storage tank; specific facility]. The California Department of Health Services, [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 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.

OPTIONS

- 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: [Name, title, phone & address of responsible utility representative].
California Department of Health Services at: [insert local district office, DE and phone number].
Local County Health Department: [insert phone number of local health department].

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:

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 California Department of Health Services, [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.

OPTIONS

- 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: [Name, title, phone & address of responsible utility representative].
California Department of Health Services at: [insert local district office, DE and phone number].
Local County Health Department: [insert phone number of local health department].

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:

BOIL WATER ORDER

Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.

BOIL YOUR WATER BEFORE USING

Failure to follow this advisory could result in stomach or intestinal illness.

Due to the recent event [e.g., water outage, power outage, flood, fire, earthquake or other emergency situation], the California Department of Health Services in conjunction with the [County Name] County Health Department, and [Water System name] Water System are advising residents of [City, Town, System] to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution.

DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST. Bring all water to a boil, **let it boil for one (1) minute,** and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking and food preparation **until further notice**. Boiling kills bacteria and other organisms in the water. [or This is the preferred method to assure that the water is safe to drink.]

Optional alternative to include for prolonged situations where it fits.

- **An alternative method of purification for residents that do not have gas or electricity available is to use fresh liquid household bleach (Clorox®, Purex®, etc.). To do so, add 8 drops (or 1/4 teaspoon) of bleach per gallon of clear water or 16 drops (or 1/2 teaspoon) per gallon of cloudy water, mix thoroughly, and allow to stand for 30 minutes before using. A chlorine-like taste and odor will result from this purification procedure and is an indication that adequate disinfection has taken place.**
- Water purification tablets may also be used by following the manufacturer's instructions.
- 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 no bacteria and you no longer need to boil your water. We anticipate resolving the problem within [estimated time frame].

For more information call:
Water Utility contact: [Name, title, phone & address of responsible utility representative].
California Department of Health Services – Drinking Water Field Operations Branch- District Office at [(XXX) XXX-XXXX].
Local Environmental Health Jurisdiction: [XXXXX County at (XXX) XXX-XXXX].

Please share this information with all the other people 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.

Appendix F
California Statewide Emergency Notification Plan

State of California—Health and Human Services Agency

DEPARTMENT OF HEALTH SERVICES

California Department of Health Services

ARNOLD SCHWARZENEGGER
Governor

WATER QUALITY EMERGENCY NOTIFICATION PLAN

Name of Utility: _____

Physical Location/Address: _____

The following persons have been designated to implement the plan upon notification by the State Department of Health Services that an imminent danger to the health of the water users exists:

Water Utility: Contact Name & Title	Email Address	Telephone Day	Evening	Cell
1.				
2.				
3.				

The implementation of the plan will be carried out with the following State and County Health Department personnel:

State & County Health Departments: Contact Name & Title	Telephone Day	Evening
1. DE Name, District Engineer	**(XXX)**	**(XXX)**
California Department of Health Services	**XXX-XXXX**	**XXX-XXXX**
2. Alternative CDPH Staff	**(XXX)**	**(XXX)**
California Department of Health Services	**XXX-XXXX**	**XXX-XXXX**
3. County Environmental Health Department	**(XXX)**	**(XXX)**
Local Primacy Agency	**XXX-XXXX**	**XXX-XXXX**

4. If the above personnel cannot be reached, contact:

Office of Emergency Services Warning Center (24 hrs) (800) 852-7550 or (916) 845-8911
When reporting a water quality emergency to the Warning Center, please ask for the California Department of Health Services – Drinking Water Program Duty Officer.

NOTIFICATION PLAN

Attach a written description of the method or combination of methods to be used (radio, television, door-to-door, sound truck, etc.) **to notify customers in an emergency.** For each section of your plan give an estimate of the time required, necessary personnel, estimated coverage, etc. Consideration must be given to special organizations (such as schools), non-English speaking groups, and outlying water users. Ensure that the notification procedures you describe are practical and that you will be able to actually implement them in the vent of an emergency. Examples of notification plans are attached for large, medium and small communities.

Report prepared by:

_____ _____

Signature and Title Date

PLAN I (Medium Community)

During regular working hours our people will contact the news media at television station KXYZ to broadcast the necessary warning. The local radio stations will also be contacted. The television and radio personnel are available at all hours. As a follow-up measure, we will also contact the Daily Bee, a local newspaper that serves both Ourtown and Hometown.

The warnings will be issued in both English and Spanish to cover all members of the community. Outlying areas of the water service area (such as Isolated Canyon and Lonesome Mountain subdivisions) will also be notified by sound truck and/or handbill distributed to their respective areas. Both of these areas are very small and this can be done quite quickly.

A special telephone answering service can also be quickly set up at the utility headquarters (using the regular company numbers) to answer questions that will come in from consumers. Questions are anticipated, especially from the Hometown area, because that area is served by three different water companies. A map will be available to the telephone answering personnel to determine the water company serving the caller.

It is anticipated that the time for notification to the television and radio audiences will be very short. The areas served by handbill and sound truck will also be notified within an hour. For notification to be issued in other than normal hours, the same media will be contacted and an announcement will be scheduled for as long as is necessary. A sound truck(s) will be used in the early morning hours to quickly alert the people not listening to their radio or television.

PLAN II (Small Community)

Our community is very small and the most efficient means of notification will be both sound truck and handbill. It is estimated that the entire service area can be covered in less than three hours.

PLAN III (Large Community)

The same plan as implemented in Plan I should be used here with the exceptions noted. All the news media will be contacted in the entire metropolitan area. This includes all television and radio stations and all local and general area newspapers. Maps have been prepared to be distributed to the media to locate the boundaries of the water company. This system is large enough that it may only be necessary to notify some of the water users. This information will be transmitted to the media and an answering service at the water company will respond to consumers' calls. Unless the problems are limited to isolated areas it is unreasonable to assume that contact can be made through sound truck or handbill.

Appendix G
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 [UTILITY ABBREVIATION] 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.
- **[UTILITY ABBREVIATION] facility staff** and/or **law enforcement** may collect water samples prior to the collection of physical evidence.
- **[UTILITY ABBREVIATION] 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 **[UTILITY ABBREVIATION] 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.
- **[UTILITY ABBREVIATION] 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.
- **[UTILITY ABBREVIATION] facility staff** should notify [SD]/[GM] of any obvious physical evidence of contamination.
- **[UTILITY ABBREVIATION] facility staff** should not handle any physical evidence except at the direction of the appropriate law enforcement agency.
- Any photographs or videos taken by **[UTILITY ABBREVIATION] facility staff** should be reported to law enforcement for proper handling to ensure integrity of the evidence.

The **[UTILITY ABBREVIATION] [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 **[UTILITY ABBREVIATION] [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

10.1.2 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)
☐ Tools (e.g., wrenches, bolt cutters)
☐ Lab equipment (e.g., beakers, tubing)
☐ None
☐ Empty containers (e.g., bottles, drums)
☐ Hardware (e.g., valves, pipe)
☐ Pumps or hoses
☐ 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 access hatches
☐ Facility in disarray
☐ Other _____
☐ Open/damaged gates, doors, or windows
☐ Missing/damaged equipment
☐ None

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

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, order, 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 H
ERP Certification Form

CERTIFICATION OF COMPLETION
OF AN EMERGENCY RESPONSE PLAN

Public Water System ID number: 441003
System Name: Scotts Valley Water District
City where system is located: Scotts Valley
State : California
Printed Name of Person Authorized to Sign this Certification on Behalf of the System:
William O' Brien

Title: Operations Manager/Assistant General Manager
Address : (Physical) Two Civic Center Drive – (Mailing) PO Box 660006
City: Scotts Valley
State and ZIP Code: California 95067-0006
Phone: (831)438-2363 Fax: (831)438-6235 Email: wobrien@svwd.org

I certify to the Administrator of the U.S. Environmental Protection Agency that this community water system has completed an Emergency Response Plan that complies 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).
I further certify that this document was prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information (Safe Drinking Water Act (42 U.S.C.300f *et seq.*)).

> The emergency response plan that this community water system completed incorporates the results of the vulnerability assessment completed for the system and includes "plans, procedures, and identification of equipment that can be implemented or utilized in the event of a terrorist or other intentional attack " on this community water system. The emergency response plan also includes "actions, procedures, and identification of equipment which can obviate or significantly lessen the impact of terrorist attacks or other intentional actions on the public health and the safety and supply of drinking water provided to communities and individuals."

This CWS has coordinated, to the extent possible, with existing Local Emergency Planning Committees established under the Emergency Planning and Community Right-to- Know Act (42 U.S.C.11001 et seq) when preparing this emergency response plan.

Signed:_____Date:_____
Primary contact person that EPA can call if there are questions about this Certification:
Name: Colin Smith
Address (if different than that of the Authorized Representative):
_____
Phone: (831)438-2363
Email Address: csmith@svwd.org
Alternate Contact Person:
Name: Charles McNiesh – cmcniesh@svwd.org
Address (if different than that of the Authorized Representative):
_____

Source: EPA Small-Medium ERP Guidance 2004