



County of Santa Cruz *California*

Serving the Community ~ Working for the Future

WINTER STORM RESPONSE PLAN VOLUME 1

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TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
<u>VOLUME 1 of 2 – Main Report (this volume)</u>	
Section 1—Plan Introduction	1
1.1 Purpose of Plan	1
1.2 Scope of Plan	1
Section 2—Concept of Operations	3
2.1 Situation Overview	3
2.1.1 Areas Subject to Flooding.....	3
2.1.2 Watersheds in Santa Cruz County	4
2.2 General Approach to Seasonal Flood Operations	6
2.2.1 Monitoring	8
2.2.2 Analysis and Initial Response	9
2.2.3 Alerting and Activation	9
2.3 Public Notification of Flood Threats.....	10
2.3.1 Initial Notifications	10
2.4 Stage Definitions for Floods	10
2.5 Flood/Threat Operations	11
2.5.1 Phase I: Preparedness	11
2.5.2 Phase IIA: Increased Readiness / Activation	11
2.5.3 Phase IIB: Flood Response Preparation.....	12
2.5.3 Phase III: Emergency Response.....	13
2.5.4 Phase IV: Initial Recovery	14
2.5.5 Federal and State Emergency and Disaster Assistance.....	15
Section 3—Organization and Assignment of Responsibilities	16
3.1 General Organization and Responsibilities	16
3.1.1 Levee Flood Control Operations.....	16
3.1.2 Operational Area Flood Control Operations	16
3.1.3 Mutual Aid Regions and Regional Support	16
3.1.4 State Flood Control Operations	16
3.1.5 Federal Flood Control Operations	16
Section 4—Direction, Control, and Coordination	17
4.1 Chief Executive.....	17
4.2 Incident Commander (IC)	17
4.3 Support Personnel	17
4.4 Plan Activation.....	17
4.5 Standardized Emergency Management System (SEMS) Structure.....	17
4.6 Public Notification	21
4.6.1 Notification Protocols.....	23
4.7 Resources	23
4.7.1 Staffing	23
4.7.2 Integration with Police and Fire Responders	23
4.7.3 Obtaining and Training Volunteers	23

Santa Cruz County
Winter Storm Response Plan

4.7.4	Cal OES and DWR Assistance	24
4.8	Disaster Intelligence.....	24
4.8.1	Information Needed and Resources	24
4.9	Buildings Used to Provide Essential Services.....	25
Section 5	—Communications.....	27
5.1	Communications Organization.....	27
5.2	Public Alerting Systems.....	27
5.2.1	CodeRED.....	27
5.2.2	Nixle	27
5.2.3	Social Media.....	28
5.2.4	Wireless Emergency Alerts (WEA).....	28
5.2.5	Emergency Alert System (EAS)	28
5.3	Local Emergency Communication Systems.....	29
5.3.1	Radio Communication Systems.....	29
5.3.2	Consolidated Public Safety Communications System (CPSCS).....	30
5.3.3	Local Communications Support Resources	30
5.3.4	Telephone Systems	31
5.3.5	Weak Links.....	32
5.4	Protocols for Communications with Levee Patrols	32
5.4.1	Other Communications Protocols	32
5.5	Integration and Interoperability.....	32
5.6	Media Interface	33
Section 6	—Administration, Finance, and Logistics	35
6.1	Master Mutual Aid Agreement	35
6.2	Record Keeping	35
6.3	Resource Tracking	35
6.4	Flood Fight Equipment	36
6.5	Flood Fight Supplies	37
6.6	Staging Areas	38
6.7	Evacuation Centers	38
Section 7	—Plan Development and Maintenance	39
7.1	Plan Development.....	39
7.2	Plan Review and Maintenance	39
7.3	Training and Exercises	40
7.4	Evaluation	40
Section 8	—Authorities and References.....	41
8.1	Federal Authorities and References	41
8.2	State Authorities and References	41
8.3	Local Authorities and References	41
Appendix A	—Communications Support.....	43
A.1	Communications Support.....	43
A.1.1	California Office of Emergency Services (Cal OES)	43
A.1.2	Mobile Satellite Communications Units	43
A.1.3	Operational Area Satellite Information System (OASIS)	43

Santa Cruz County
Winter Storm Response Plan

A.1.4	Mobile Command and Communication Resources.....	43
A.1.5	Portable Radio Caches	44
A.2	State Radio Systems.....	44
A.2.1	California Law Enforcement Mutual Aid Radio System (CLEMARS).....	44
A.2.2	California Law Enforcement Radio System (CLERS)	44
A.2.3	California Emergency Services Radio System (CESRS).....	44
A.2.4	OES Fire (and Rescue Radio Network)	44
A.3	Emergency Contact Directory	45
A.4	Sample Media Releases	45
Appendix B—Levee Patrol		53
B.1	Purpose.....	53
B.2	Program Elements	54
B.2.1	Component I – Training.....	54
B.2.2	Component II – Equipment Procurement and Maintenance	54
B.2.3	Component III – Levee Patrols	55
B.2.4	High Water Staking Procedures	58
B.3	Augmenting Staff.....	58
Appendix C—Flood Fight.....		59
C.1	Flood Fight Trigger Points	59
C.2	Prioritization	59
C.3	Activation and Dispatch	60
C.4	Personnel.....	60
C.4.1	Resource Agencies.....	61
C.4.2	Mission Tasking.....	61
C.4.3	Tasking Criteria	61
C.4.4	Costs/Reimbursement	61
C.4.5	Request Procedures.....	61
C.4.6	Fire Mutual Aid	62
C.4.7	State Agency Voluntary Response.....	62
C.5	Hazardous Materials Locations	62
C.6	Flood Fight Equipment and Materials.....	63
C.7	Public Flood Fight Supplies	64
C.8	Logistics Procedures	65
C.9	Training in Flood Fight Procedures and Techniques	65
C.10	Utilities.....	65
Appendix D—Evacuation		66
D.1	Evacuation Considerations.....	66
D.2	Public Notification	66
D.2.1	CodeRED.....	67
D.2.2	Nixle	67
D.2.3	Social Media	67
D.2.4	Wireless Emergency Alerts (WEA).....	68
D.2.5	Emergency Alert System (EAS)	68
D.2.6	Vehicle Loudspeaker Systems	69

Santa Cruz County
Winter Storm Response Plan

D.3	Operations	69
D.4	Maps.....	69
Appendix E—Flood Water Removal		73
E.1	Priorities.....	73
E.1.1	Alternative 1 – No Immediate Dewatering Needed.....	73
E.1.2	Alternative 2 – Close Breach; No Water Removal	73
E.1.3	Alternative 3 – Repair Breach and Remove Water by Pumping.....	74
E.1.4	Alternative 4 – Repair Breach and Remove Water by Making a Relief Cut	74
E.1.5	Environmental Considerations.....	74
E.2	Contractors and Vendors.....	74

Table of Tables

Table 1—Santa Cruz County Watersheds	5
Table 2—Santa Cruz County Levees, Drainage Facilities, and Flood Control Structures	6
Table 3—Action and Flood Stage Thresholds.....	7
Table 4—Monitor / Initial Action Criteria	12
Table 5—Flood Stage Criteria.....	13
Table 6—Summary of Critical Flood Emergency Management Responsibilities	21
Table 7—FCC Santa Cruz County EAS Plan.....	29
Table 8—Santa Cruz County Radio Communication Systems.....	30
Table 9—Flood Fight Equipment	37
Table 10—Staging Areas.....	38
Table 11—Flood Fight Equipment Inventory – Public Works Maintenance Yard (Watsonville).....	55
Table 12—Flood Fight Equipment	64
Table 13—FCC Santa Cruz County EAS Plan.....	68

Table of Figures

Figure 1—Santa Cruz County Special Flood Hazard Areas.....	4
Figure 2—Major Watersheds and Watershed Regions of Santa Cruz County	6
Figure 3—Flood Event Stages.....	8
Figure 4—Santa Cruz County EOC Organization Chart	19
Figure 5—Winter Storm Response Plan Maintenance Cycle	39
Figure 6—Lower Pajaro River Levee Patrol Area (Zone 7 only responsible for levee reaches within Santa Cruz County)	57
Figure 7—Santa Cruz County-Owned Critical Infrastructure	71
Figure 8—Non-County-Owned Critical Facilities.....	72

VOLUME 2 of 2 – Map Atlas (separately bound)

Santa Cruz County
Winter Storm Response Plan

Abbreviations and Acronyms

Cal OES	California Office of Emergency Services
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Division of Occupational Safety and Health
CB	Citizens' Band
CCC	California Conservation Corps
CDEC	California Data Exchange Center
CERT	Community Emergency Response Team
CESRS	California Emergency Services Radio System
CLEMARS	California Law Enforcement Mutual Aid Radio System
CLERS	California Law Enforcement Radio System
CNG	California National Guard
CNRFC	California-Nevada River Forecast Center
CPSCS	Consolidated Public Safety Communications System
DWR	California Department of Water Resources
EAS	Emergency Alert System
EDIS	Emergency Digital Information Service
EMS	Emergency Management System
EOC	Emergency Operations Center
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FOC	Flood Operations Center
GPS	Global Positioning System
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
JIC	Joint Information Center
LMA	Local Maintaining Agency
MECU	Mobile Emergency Coordination Unit
NWS	National Weather Service
OA	Operational Area (County)
OASIS	Operational Area Satellite Information System
OES	Santa Cruz County Office of Emergency Services
PIO	Public Information Officer
PL 84-99	Public Law No. 84-99 (1984) gives the Corps of Engineers authority for emergency management activities
PSAP	Public Safety Answering Point
RACES	Radio Amateurs Civil Emergency Services
RD	Reclamation District
REOC	Cal OES's Regional Emergency Operations Center
RIMS	Response Information Management System
SCCEOC	Santa Cruz County Operational Area Emergency Operations Center
SCCDPW	Santa Cruz County Department of Public Works
SEMS	Standardized Emergency Management System
SOC	Cal OES's State Operations Center
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
WSRP	Winter Storm Response Plan

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SECTION 1—PLAN INTRODUCTION

1.1 PURPOSE OF PLAN

This Winter Storm Response Plan (WSRP) outlines Santa Cruz County’s (County) planned response to flood emergencies in or affecting the County of Santa Cruz.

The purpose of the plan is to provide information, policies, and procedures that will guide and assist Santa Cruz County in efficiently dealing with flood emergencies. The plan addresses flood preparedness, levee patrol, flood fight, evacuation procedures, floodwater removal, and other related subjects. This plan requires implementation of the California Standardized Emergency Management System (SEMS), which, when used in conjunction with the *California Emergency Plan* and other local emergency plans, facilitates multi-agency and multi-jurisdictional coordination, particularly among Santa Cruz County and local governments, special districts, and State agencies in flood emergency operations.

Although this is a public document, appendices to this WSRP contain specific procedures to be followed in flood response. The appendices may contain sensitive material, such as personal contact information. Therefore, they are not intended to be public documents in their complete forms and may be subject to restricted-use handling procedures. Edited copies of the WSRP deleting restricted data may be obtained from the Santa Cruz County Office of Emergency Services (OES) <http://www.co.santa-cruz.ca.us/Departments/EmergencyServices/OESPlans.aspx/>.

1.2 SCOPE OF PLAN

The Santa Cruz County WSRP:

- ◆ Establishes the emergency management organization responsible for flood emergencies affecting Santa Cruz County
- ◆ Identifies policies, responsibilities, and procedures required to protect the health and safety of Santa Cruz County communities from the effects of flood emergencies
- ◆ Establishes operational concepts and procedures associated with field response to flood emergencies and the recovery process
- ◆ Identifies policies for after-action analyses and follow-on activities

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SECTION 2—CONCEPT OF OPERATIONS

2.1 SITUATION OVERVIEW

Santa Cruz County, located on the northern end of Monterey Bay on the north-central California coast, encompasses 607 square miles, including 29 miles of coastline. With a population of more than 275,000, the County is home to the University of California at Santa Cruz (UCSC), the Monterey Bay National Marine Sanctuary, and a robust economy anchored in technology, agriculture, and tourism. The County’s Mediterranean climate is characterized by warm, dry summers and cool, rainy winters, with annual rainfall varying from approximately 22 inches per year in the Watsonville area to 80 inches per year in Bonny Doon.

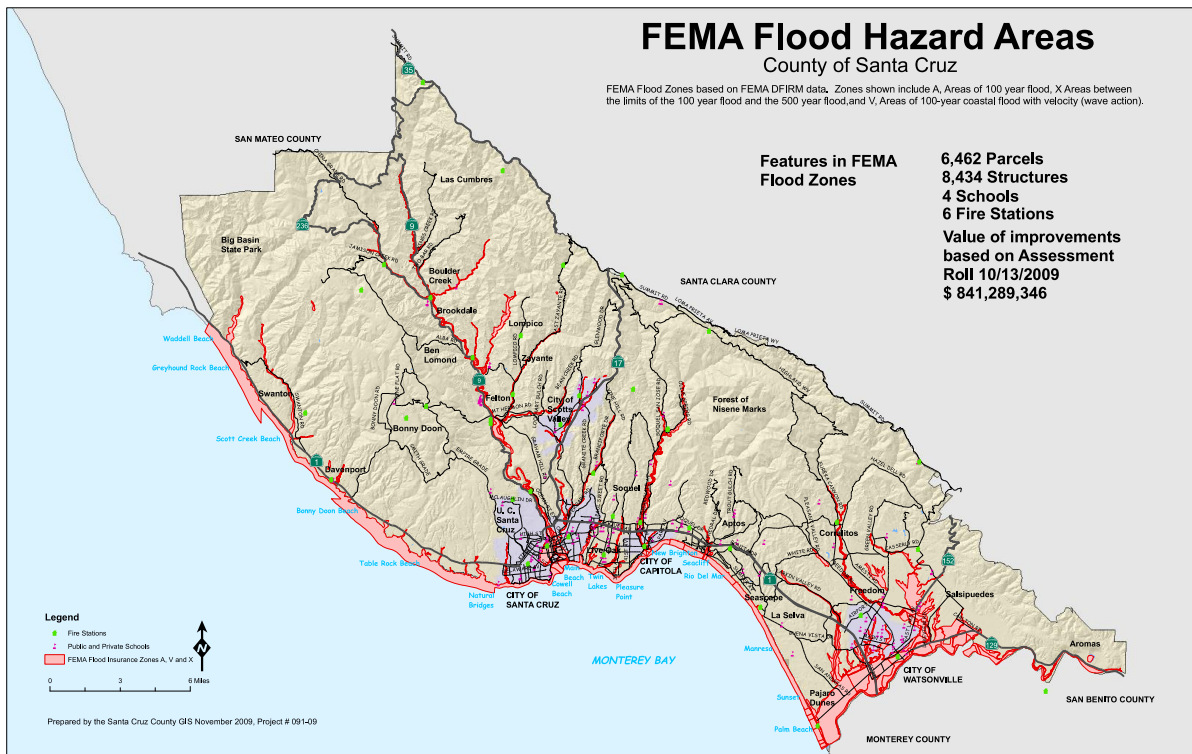
While local, State, and federal protective facilities, such as dams, bypasses, and levees, provide some level of flood protection, historical flooding associated with winter storm events in 1940, 1950, 1952, 1955, 1958, 1963, 1967, 1973, 1978, 1982, 1983, 1986, 1995, 1998, and 2017 demonstrate that there is still a significant flood threat in the County.

2.1.1 Areas Subject to Flooding¹

Santa Cruz County is vulnerable to a number of flooding sources, including high tides, wave run-up, river flooding, levee failure, drainage pump failure, and dam failure, which can result in significant damage to public infrastructure and private property. Approximately 11 percent of developed parcels, five percent of public roads, 25 percent of County Sheriff facilities, 30 percent of the fire stations, nine percent of schools, and approximately 15 percent of the churches within the County are located within a Federal Emergency Management Agency (FEMA) defined Special Flood Hazard Area (SFHA). Some of these at-risk assets are shown in Figure 1.

¹ Reference: Santa Cruz County Local Hazard Mitigation Plan (September, 2015) and Santa Cruz County Flood Forecasting and Flood Operations (n.d.)

Figure 1—Santa Cruz County Special Flood Hazard Areas



Localized flooding may occur outside of recognized drainage channels or delineated floodplains due to a combination of locally heavy precipitation, increased surface runoff, and overwhelmed drainage facilities and/or stormwater conveyances. Such events frequently occur in flat areas and in urbanized areas with large impermeable surfaces. Local drainage may result in “nuisance flooding,” where streets or parking lots are temporarily closed and minor property damage occurs.

2.1.2 Watersheds in Santa Cruz County

There are four major watersheds in Santa Cruz County: San Lorenzo River, Soquel Creek, Aptos Creek, and Pajaro River. There are also several smaller watersheds that have been grouped into 2 watershed regions: North Coast and Arana and Rodeo Gulches. Table 1 describes the four watersheds and two watershed regions in more detail. The locations are shown in Figure 2.

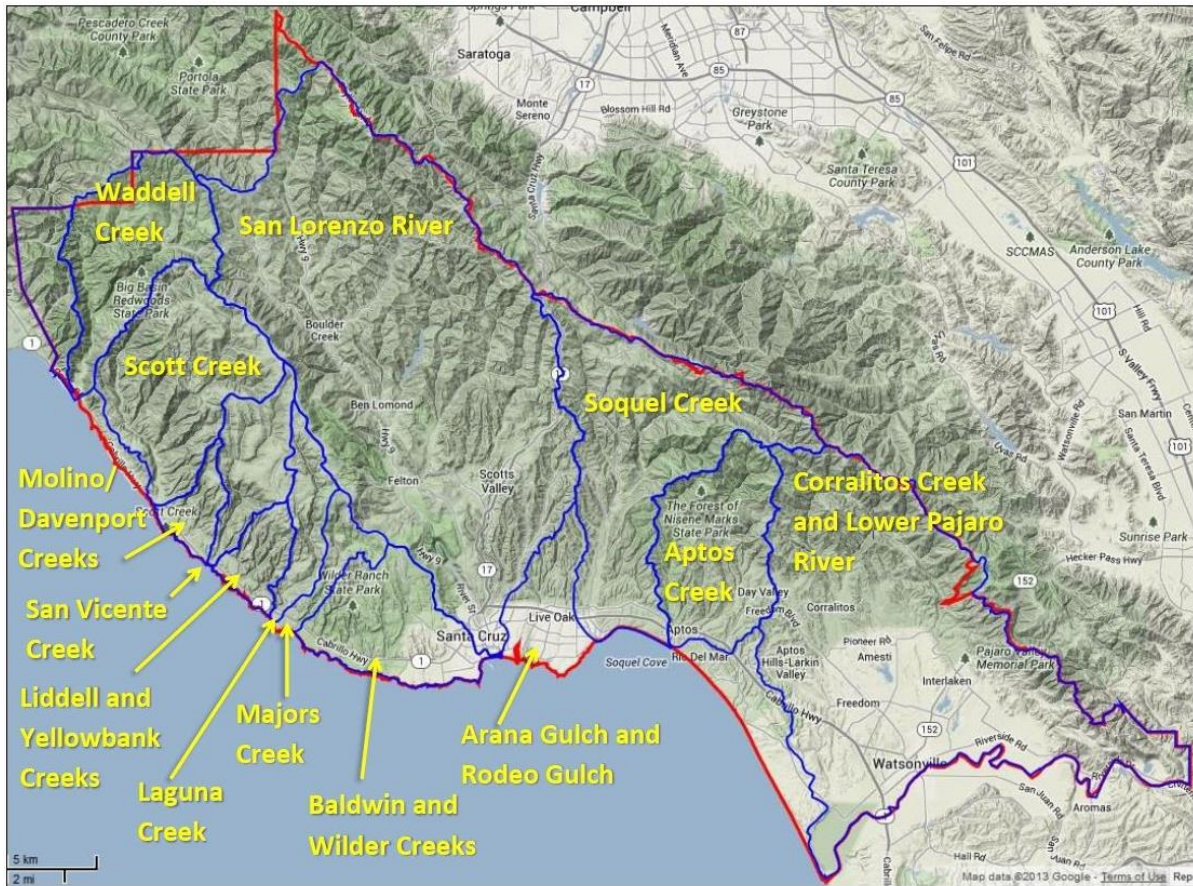
Santa Cruz County
Winter Storm Response Plan

Table 1—Santa Cruz County Watersheds

Watershed	Location	Description
North Coast Watershed Region	Northwestern Santa Cruz County	Includes Davenport, Laguna, Liddell, Majors, Molino, San Vicente, Scott, Waddell, and Wilder/Baldwin Creeks
San Lorenzo River Watershed	North-central Santa Cruz County	Includes Bean, Bear, Boulder, Branciforte, Carbonera, Kings, Lompico, Love, Newell, and Zayante Creeks
Arana and Rodeo Gulch Watershed Region	South-central Santa Cruz County	
Soquel Creek Watershed	Central Santa Cruz County	Includes Amaya Gulch, and Bates and Hinckley Creeks
Aptos Creek Watershed	Central Santa Cruz County	Includes Trout Gulch, Mangles Gulch, and Valencia Creek
Lower Pajaro River Watershed	Southern Santa Cruz County	Includes Corralitos Creek, Salsipuedes Creek, and Hughes-Cassery-Green Valley-College Lake

Reference: Santa Cruz County Flood Forecasting and Flood Operations Manual (2017-18)

Figure 2—Major Watersheds and Watershed Regions of Santa Cruz County



2.2 GENERAL APPROACH TO SEASONAL FLOOD OPERATIONS²

The Santa Cruz County Flood Control and Water Conservation District – Zone 7 (Zone 7) and the Pajaro Storm Drain Maintenance District (PSDMD) are responsible for the following levee segment(s) and appurtenant flood control structures.

Table 2—Santa Cruz County Levees, Drainage Facilities, and Flood Control Structures

Flood Control Facility	Waterway	Location	Maintenance Responsibility
Lower Pajaro River Levee	Pajaro River	Santa Cruz / Santa Cruz County Line	Zone 7 / PSDMD
Salsipuedes Levee	Salsipuedes Creek	Watsonville and unincorporated Southern Santa Cruz County	Zone 7 / PSDMD

² Reference: Santa Cruz County Flood Forecasting and Flood Operations Manual (2017-18)

The Santa Cruz County Department of Public Works (SCCDPW) as well as other flood control and drainage districts within the County are responsible for other select drainage facilities throughout the County.

The following thresholds may be used to guide response activities.

Table 3—Action and Flood Stage Thresholds

Waterway	Gage Number / USGS Site Number / Location		Action (Monitor) Stage Criteria (Feet)	Flood Stage Criteria (Feet)
Corralitos Creek	1990 & 11159200 (USGS)	Corralitos Stage @ Freedom	9.0	11.5
Pajaro River	11159000 (USGS)	Chittenden	25.0	32.0
	11159500 (USGS)	Main Street, Watsonville	TBD	TBD
Salsipuedes Creek	N/A	Highway 129	32.0	34.5
	N/A	East Lake Avenue	62.0	63.1
San Lorenzo River	1994 & 11160500 (USGS)	Big Trees	14.0	16.5
	6173	Lomond Street Bridge	21.0	24.0
Soquel Creek	1960	Bridge Street	13.0	16.0

Reference: Santa Cruz County Flood Forecasting and Flood Operations Manual (2017-18) and Santa Cruz County Department of Public Works Flood Control and Water Conservation District staff

The following diagram shows, in general, how resources are mobilized, and various actions initiated as a function of National Weather Service notifications and/or river/reservoir stage or gage level. **Section 2.2** identifies the specific level of response/commitment for specific trigger points.

Figure 3—Flood Event Stages



2.2.1 Monitoring

Santa Cruz County’s flood stage monitoring is comprised of observation of readings from specific, real-time, telemetered stream gages that report the conditions on water courses that affect potential flooding in the County. For each gage location on a stream or water course, stages or flows have been categorized into one or more of the following four levels: Action (Monitor) Stage, Flood Stage, Moderate Flood Stage, Major Flood Stage. Real-time telemetered rain gages are also monitored to assist in the identification of flood-related hazards during storm events. The real-time

gages can be accessed through the internet at the Santa Cruz County OneRain website (santacruz.onerain.com). Additionally, USGS gage data can be accessed on waterdata.usgs.gov.

The following reservoirs may affect Santa Cruz County:

- ◆ Loch Lomond Reservoir (City of Santa Cruz)
- ◆ Uvas Reservoir (Santa Clara County)
- ◆ Chesbro Reservoir (Santa Clara County)

Monitoring staff may use the following additional information sites during a storm event:

- ◆ National Weather Service: www.forecast.weather.gov
- ◆ River Forecast Center: cnrfc.noaa.gov
- ◆ National Weather Service Advanced Hydrologic Prediction Service: <https://water.weather.gov/ahps2/index.php?wfo=MTR>
- ◆ Social media platforms such as Twitter, Facebook, and others
- ◆ NWS Chat (authorized use only)

2.2.2 Analysis and Initial Response

After compiling monitoring and surveillance information, SCCDPW determines if it is necessary to initiate flood operations or direct flood fight resources to specific areas where flooding is occurring or may occur soon. Other Santa Cruz County emergency response agencies also monitor flood stage information or monitoring systems and are in constant communication with County flood control staff throughout a storm episode. Agency coordination is facilitated through the Santa Cruz County Operational Area Emergency Operations Center (SCCEOC).

Levee Patrol Trigger

The Zone 7 Flood Control District initiates patrols on the Lower Pajaro River levee when the water level is expected to reach monitor stage at Chittenden (25.0 feet). Due to the larger watershed of the Pajaro River, the peak flow may occur one to two days after precipitation has ended. If conditions exceed the capabilities of this levee system, the Zone 7 Flood Control District may contact the DWR for technical assistance or may already be initiating flood fight and response activities. The DWR Flood Operations Center (FOC) may also request support from the U.S. Army Corps of Engineers (USACE) under PL 84-99.

2.2.3 Alerting and Activation

When conditions warrant, the SCCEOC is activated pursuant to criteria outlined in the Santa Cruz County Operational Area Emergency Management Plan (EMP) to coordinate overall operational

area response with County and local agencies and jurisdictions. The decision to activate the SCCEOC will be based on soil saturation conditions, anticipated rainfall rates and totals, and current or anticipated stream levels. The SCCEOC remains operational throughout any significant storm or flood event.

2.3 PUBLIC NOTIFICATION OF FLOOD THREATS

2.3.1 Initial Notifications

Initial flood threat notifications may be disseminated by multiple agencies, including the NWS and local EOCs. The following are types of public flood threat notifications:

- ◆ A **Flash Flood Watch** means it is possible that rain may cause flash flooding in specified areas
- ◆ A **Flash Flood Warning** means flash flooding is highly likely, imminent, or is occurring
- ◆ A **Flood Watch** means flooding is possible in specified areas
- ◆ A **Flood Warning** means flooding is either imminent or is occurring

The County provides emergency messaging to unincorporated areas pursuant to products issued by NWS. Incorporated areas have responsibility for evacuation notification of the public within their jurisdictions. They are also responsible for activating their own emergency response plans for a flood threat.

2.4 STAGE DEFINITIONS FOR FLOODS

The following information describes the preparedness activities and flood watch operations used by the SCCDPW.

In riverine flooding, river stages generally dictate the phase as follows:

- PHASE I: Preparedness** – Below Action Stage on all monitored waterways
- PHASE IIA: Increased Readiness / Activation** – When streams may potentially exceed Action and/or Flood Stage
- PHASE IIB: Flood Response Preparation** – At or above Action Stage with additional precipitation forecast that may cause flooding
- PHASE III: Emergency Response** – At or above Flood Stage, as shown in Table 3
- PHASE IV: Initial Recovery**

2.5 FLOOD/THREAT OPERATIONS

Some flood events occur relatively slowly, providing emergency response personnel with an opportunity to provide advanced notification to those who might be affected. Other flood events occur rapidly, requiring mobilization of the emergency response organization quickly, with little or no lead time to provide notification. In either case, Santa Cruz County emergency response agencies need to be prepared to respond promptly and efficiently to flood threats.

This WSRP may be implemented in several phases as follows. In the case of slow rise flood threats, the phases are initiated based on soil conditions, anticipated rainfall, and in-channel water levels.

2.5.1 Phase I: Preparedness

Agencies and/or departments having emergency responsibilities under this WSRP prepare service support plans, operating procedures, and checklists detailing the use and disposition of their resources in advance of a flood threat or emergency. Such plans and procedures include coordination and communication lines with other County departments and jurisdictions.

The SCCDPW coordinates with the DWR Flood Management Division to provide flood fight training as needed or when requested. SCCDPW also conducts coordination and plans review meeting(s) with allied Santa Cruz County agencies/departments as needed. Procedural checklists are periodically reviewed and updated as necessary, including river monitor and flood stage levels as appropriate.

2.5.2 Phase IIA: Increased Readiness / Activation

This phase begins with *monitoring* conditions that could result in a flood threat, such as predicted rain or storm events, soil saturation conditions, and current stream and river levels. Depending on the predicted severity of the storm event, and/or the amount of rainfall, *activation* of the SCCEOC to the appropriate level will occur and will include ongoing storm and water level monitoring.

As a flood threat situation develops, the Santa Cruz County Administrative Officer / Director of Emergency Services, or authorized designee, evaluates available information to determine necessary action(s) and/or initiates appropriate response. Generally, this means initiating the emergency response plan into limited operation. This includes alerting key personnel, ensuring readiness of essential resources, and preparing to move resources to the threatened area when required. The SCCEOC coordinates with incorporated jurisdictions within the County and the Cal OES Coastal Region EOC as appropriate.

At this phase, the SCCEOC will generally be activated to either Level I (Decentralized Coordination and Direction) or Level II (Centralized Coordination). The extent of activation is event-driven and at the discretion of the Director of Emergency Services, Emergency Services Administrator, or Deputy EOC Coordinators. The SCCEOC monitors communications; receives

information on field situations, weather, river, and reservoir stages; directs response; coordinates with adjacent and local agencies; provides and coordinates resources and assets; provides information; arranges for State, federal, and volunteer resources; requests mutual aid from adjacent agencies; and plans, organizes, controls, and documents actions during a flood event.

State and federal actions in this phase include the following: DWR FOC monitors flooding situations on a daily operational schedule. If local agencies begin to encounter extensive problems, the FOC extends hours to 24-hour operations and increases coordination efforts for State support of flood fight operations. Typically, the Cal OES State Operations Center (SOC) and the Cal OES Regional Operations Center for the Coastal Region (REOC), the FOC, and the Dam Management Center operated by USACE are all activated to some degree as flood threats increase. Adjacent counties and cities decide when and at what level they will activate their EOCs.

2.5.3 Phase IIB: Flood Response Preparation

This phase begins when one or more of the Action Stage thresholds listed in Table 4 has been exceeded. Entering this phase requires a determination that emergency conditions are imminent. This situation would exist when one or more waterways are expected to reach or exceed ***Flood Stage*** criteria, as shown in Table 5.

Initial actions, such as levee/river patrols, etc., are triggered during this phase.

Table 4—Monitor / Initial Action Criteria

Waterway	Gage Number / Location		Monitor Stage Criteria (Feet)
Corralitos Creek	1990 & 11159200 (USGS)	Corralitos Stage @ Freedom	9.0
Lower Pajaro River	11159000 (USGS)	Chittenden	25.0
	11159500 (USGS)	Main Street, Watsonville	27.5
Salsipuedes Creek	N/A	Highway 129	32.0
	N/A	East Lake Avenue	62.0
San Lorenzo River	1994 & 11160500 (USGS)	Big Trees	14.0
	6173	Lomond Street Bridge	21.0
Soquel Creek	1960	Bridge Street	13.0

Reference: Santa Cruz County Flood Forecasting and Flood Operations Manual (2017-18)

Table 5—Flood Stage Criteria

Waterway	Gage Number / Location		Flood Stage Criteria (Feet)
Corralitos Creek	1990 & 11159200 (USGS)	Corralitos Stage @ Freedom	11.5
Pajaro River	11159000 (USGS)	Chittenden	32.0
	11159500 (USGS)	Main Street, Watsonville	31.0
Salsipuedes Creek	N/A	Highway 129	34.5
	N/A	East Lake Avenue	63.1
San Lorenzo River	1994 & 11160500 (USGS)	Big Trees	16.5
	6173	Lomond Street Bridge	24.0
Soquel Creek	1960	Bridge Street	16.0

Reference: Santa Cruz County Flood Forecasting and Flood Operations Manual (2017-18)

2.5.3 Phase III: Emergency Response

Response operations are dependent upon the characteristics and requirements of the situation, and emergency resources are mobilized as appropriate to manage/mitigate each specific situation. Each agency or service mobilized will operate pursuant to the provisions of this WSRP, giving priority to activation and response operations as follows:

- ◆ Santa Cruz County agencies/departments activating appropriate response resources to control/mitigate the current and projected situation.
- ◆ Activating the SCCEOC to the appropriate level to coordinate and support anticipated multi-agency response operations.
- ◆ Notifying the Santa Cruz County Chief Administrative Officer or assigned delegate.
- ◆ Establishing and maintaining contact with Cal OES with ongoing information relative to the type of threat, its imminence, potential severity, area affected, and associated problems; reports shall include action being planned or taken, as well as possible deficiencies of critical emergency resources.

- ◆ Ensuring that ALL local agencies are promptly notified of the emergency situation. This may also prompt immediate public notification as required by the nature of the threat.
- ◆ Preparing to request, receive, and support mutual aid resources as needed when local-agency resources are insufficient to manage/control the situation.
- ◆ Mobilizing, allocating, and positioning personnel and materials for patrolling and flood fighting operations.
- ◆ Establishing staging areas for personnel, supplies, and equipment as needed.
- ◆ Establishing evacuation centers as needed to aid in managing the movement of people from flood areas.
- ◆ Producing and disseminating emergency information and advice to other local jurisdiction EOCs when a Joint Information Center is not operational.
- ◆ Protecting, controlling, and allocating vital resources.
- ◆ Restoring or activating essential facilities and systems.

All the preceding actions are based on extensive local coordination of plans and response. In addition, there may be daily briefings at the SCCEOC for all involved parties. When operational area resources are committed to the maximum and additional resources/personnel are required to control or alleviate the emergency, requests for additional mutual aid resources are initiated through the SCCEOC.

2.5.4 Phase IV: Initial Recovery

The SCCDPW will identify and address initial recovery needs. Initial recovery activities are generally initiated as soon as possible to minimize any adverse impacts of a flood event. Initial recovery activities include, but are not limited to:

- ◆ Debris removal
- ◆ Clearance of roadways
- ◆ Demolition of unsafe structures
- ◆ Re-establishment of public services and utilities
- ◆ Provision of care and welfare for the affected population, including temporary housing for displaced persons
- ◆ Care of animals and disposal of carcasses

The Initial Recovery phase has three primary objectives:

1. Reinstatement of family autonomy and the provision of essential public services
2. Repair of damaged facilities and restoration of public property along with reinstatement of public services
3. Performance of research to identify residual hazards, to advance knowledge of disaster phenomena, and to provide information to improve future flood operations

2.5.5 Federal and State Emergency and Disaster Assistance

State and federal support during the Activation / Emergency Response phase may include the SCCEOC requesting Cal OES and/or DWR support. California mutual aid and/or USACE assistance is available when resources beyond local capability are needed for flood fight operations.

To receive State assistance pursuant to the California Disaster Assistance Act, the County Board of Supervisors must first approve a Declaration of Local Emergency within 10 days of the occurrence of a flood event. The Cal OES Director must then concur with local declaration for the Governor to issue a State of Emergency Proclamation authorizing State emergency disaster response and permanent restoration assistance. The Governor may also request a Presidential Disaster Declaration for the affected area, which is required to obtain FEMA assistance. In addition, if residential flooding occurs, regardless of the declaration, USACE can provide federal funds for recovery operations for up to 30 days following the flood event. USACE assistance can also be requested to repair eroded and damaged levees following high flows. Requests for this authority must be made within 30 days of the flood event.

SECTION 3—ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

3.1 GENERAL ORGANIZATION AND RESPONSIBILITIES

3.1.1 Levee Flood Control Operations

Zone 7 is responsible for the Lower Pajaro River levee. Zone 7 has an engineer on staff to assist with flood fight responsibilities during flood emergencies. The SCCDPW coordinates with and requests mutual aid resources through the SCCEOC during flood events.

3.1.2 Operational Area Flood Control Operations

Flood operations occurring within Santa Cruz County are coordinated through the SCCEOC. The SCCEOC is responsible for ensuring appropriate communication and coordination among all entities responding to a flood event.

3.1.3 Mutual Aid Regions and Regional Support

Requests for mutual aid resources outside of Santa Cruz County are coordinated through the SCCEOC to the Coastal Region REOC, which then distributes the request to other counties within the region. Other counties will only supply what they can without endangering their own response capability. If the REOC is unable to fill a resource request, it may then pass the request on to the SOC, DWR, and/or USACE.

3.1.4 State Flood Control Operations

DWR is responsible for State flood control operations through its FOC, Division of Flood Management, other divisions, and its flood management and flood fight technical experts. DWR coordinates with USACE, USBR, and other agencies. DWR also operates CDEC, which monitors rainfall, stream flow, river stages, and reservoir releases across the State. DWR will work with other State agencies as needed during flood emergencies.

3.1.5 Federal Flood Control Operations

The USACE and the USBR have responsibilities for federal flood activities in California. The USACE can support emergency work as requested by the State under Public Law 84-99, which includes levee flood fighting. The USBR has responsibility for its dam releases and reservoir operations.

SECTION 4—DIRECTION, CONTROL, AND COORDINATION

4.1 CHIEF EXECUTIVE

The Santa Cruz County Chief Administrative Officer / Director of Emergency Services establishes overall policies and priorities providing direction for local flood response. Responsibility for managing emergency response within these policies and priorities is delegated to the SCCEOC Manager and, in the field, to the Incident Commander (IC), who reports to the SCCEOC Operations Section Chief. The SCCEOC supports incident response by supplying resources, equipment, and supplies. Where supplies are limited, the SCCEOC establishes priorities for resource allocation.

4.2 INCIDENT COMMANDER (IC)

The IC at the flood fight scene is responsible for all resources responding to that emergency site. The IC may assign missions to flood fight crews acquired under mutual aid from other governmental agencies, tasking them to perform specific tasks to facilitate the response. Based on these missions, the crews' normal supervisors will direct State and federal crews.

4.3 SUPPORT PERSONNEL

Flood fight crews responding from other areas pursuant to mutual aid—and contractors hired to undertake repairs—receive work assignments from the organization that requested or hired them. Organized crews will work under the immediate control of their own supervisors in response to missions assigned by the IC.

4.4 PLAN ACTIVATION

The following person(s) have authority to activate this plan based on the previously identified stages.

- ◆ Santa Cruz County Chief Administrative Officer / Director of Emergency Services
- ◆ SCCEOC Manager
- ◆ Deputy SCCEOC Coordinators

4.5 STANDARDIZED EMERGENCY MANAGEMENT SYSTEM (SEMS) STRUCTURE

Under SEMS, common organizational structure and terminology ensure smoother communication and better coordination of interjurisdiction and interagency response to emergencies. The

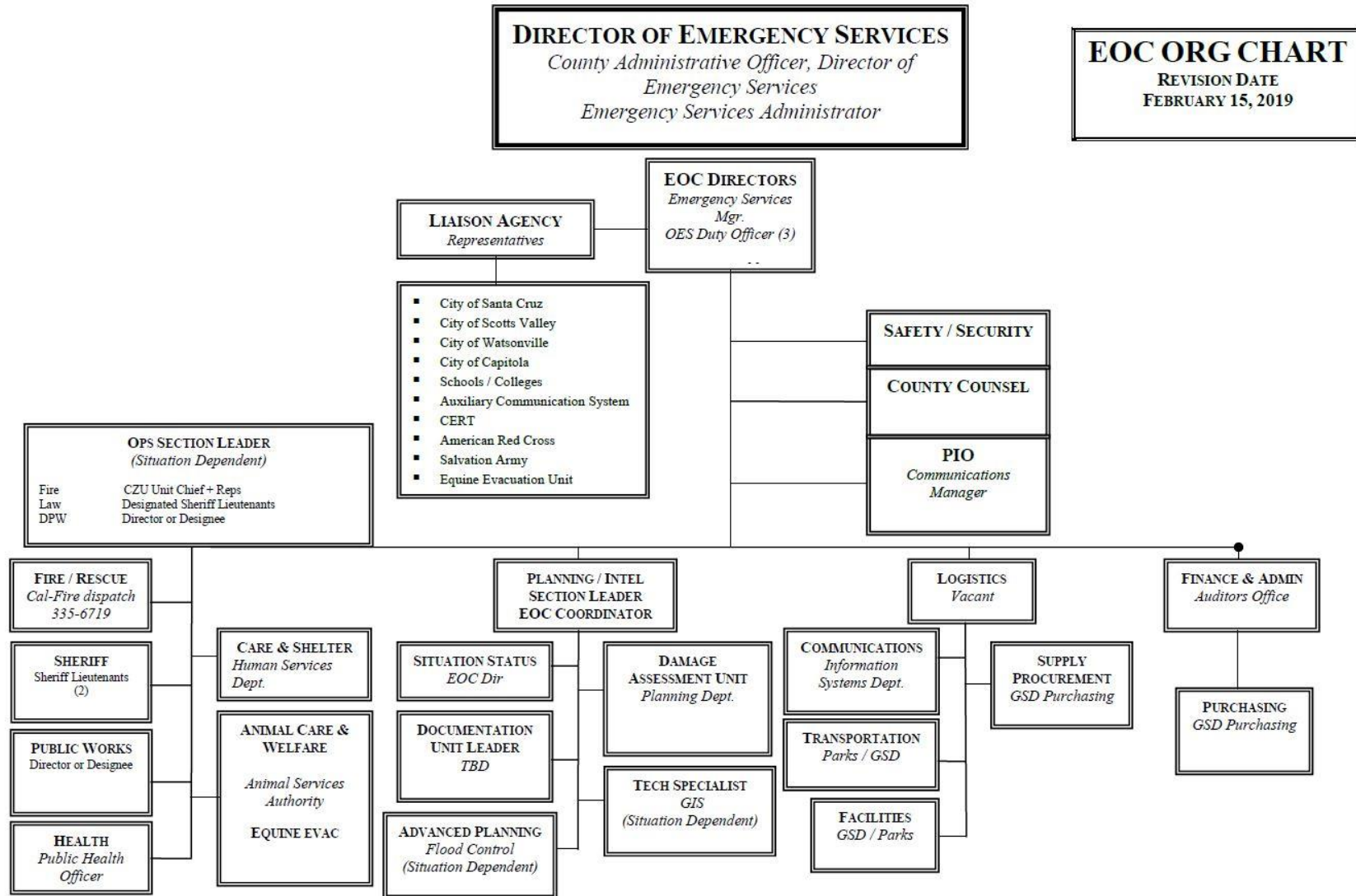
following five sections have uniform responsibilities throughout California—whether the governmental level is a city, county, special district, or the State.

- ◆ Command Staff
- ◆ Operations
- ◆ Planning and Intelligence
- ◆ Logistics
- ◆ Finance and Administration

Figure 4 shows the organizational structure of the SCCEOC when fully-activated.

Santa Cruz County
Winter Storm Response Plan

Figure 4—Santa Cruz County EOC Organization Chart



EOC ORG CHART
 REVISION DATE
 FEBRUARY 15, 2019

OPERATIONS

Fire/Rescue Branch

- Fire Resource Coordination Unit
- Hazmat Unit
- Urban Search and Rescue Unit

Sheriff Branch

- Search Unit
- Evacuations/Movement Unit

Public Works Branch

- Roads/Engineering Unit
- Debris Management Unit

Health Branch

- Hospital/EMS Unit
- Environmental Health Unit
- Public Health Unit

Care and Shelter Branch

- Animal Care and Shelter Unit
- Access and Functional Needs Unit
- School Care and Shelter Unit
- Mass Care and Shelter Unit

Animal Care and Welfare Branch

- Equine Evacuation Unit

PLANNING and INTELLIGENCE

Situation Status Unit

Damage Assessment Unit

Documentation Unit

Advanced Planning Unit

GIS Technical Specialist

LIAISON AGENCY

- City of Santa Cruz
- City of Scotts Valley
- City of Watsonville
- City of Capitola
- Schools/Colleges
- Auxiliary Communications System
- CERT
- American Red Cross
- Salvation Army
- Equine Evacuation Unit

LOGISTICS

Communications Unit

Transportation Unit

Facilities Unit

Supply Procurement Unit

FINANCE and ADMINISTRATION

Purchasing Unit

PUBLIC INFORMATION

SAFETY/SECURITY

COUNTY COUNSEL

Table 6 summarizes critical emergency management responsibilities, indicating those elements of the SEMS structure having primary responsibility for leadership in those functions and those elements providing support.

Table 6—Summary of Critical Flood Emergency Management Responsibilities

P= Primary S= Support

	Public Information / Outreach	Define Emergency Phase	Alerting and Warning	Activation of EOC/ICP	Flood Management	Monitoring and Surveillance	Levee Patrols	Flood Fight Operations	Evacuations*	Care and Shelter	Critical Infrastructure Protection	Recovery	Incident Action Planning
Director of Emergency Services	S		S	S									
EOC Director/ IC	S	S	S	P					S	S		S	S
Liaison					S	S		P	P	P	S		S
Public Information Officer	P	S	S						S	S		S	S
Operations Section		S	P	S	P	P	P	P	P	P	P	S	S
Plans and Intelligence	S	P	S	S	S		S	S	S	S	S	S	P
Logistics	S		S	S	S	S	S	S	S	S	S	S	S
Finance and Administration				S						S	S	P	S

* Local law enforcement, part of Operations in the EOC, has responsibility for this task in accordance with its Standard Operating Procedures.

4.6 PUBLIC NOTIFICATION

Public notification and awareness are extremely important during any emergency. In the case of a potential flood, the public must be kept informed of:

- ◆ Water levels and their implications for a flood event
- ◆ Levee conditions
- ◆ Short- and long-term weather forecasts
- ◆ Any other flood related threat that might exist

The National Weather Service (NWS) is responsible for alerting the public of significant weather events, including winter storm events that have the potential to cause flooding. The NWS uses a

two-tiered warning system (watch, warning) as well as “advisory” products to notify the public of the severity and imminence of the weather events and impacts as follows:

Coastal Flood Advisory	Issued when minor or nuisance coastal flooding is imminent or occurring.
Winter Weather Advisory	Issued when a low-pressure system favorable for producing a combination of winter weather (rain, freezing rain, sleet, or snow) that presents a potential hazard within 48 hours.
Urban/Small Stream Advisory	Issued when ponding of water of streets, low-lying areas, highways, underpasses, urban storm drains, and elevation of creek and small stream levels is occurring or imminent. Usually used to notify of nuisance or routine flooding conditions that may be more related to potential loss of property than loss of life.
Flash Flood Watch	Issued when conditions are favorable for flash flooding to occur.
Flood Watch	Issued when conditions are favorable for flooding to occur.
Winter Storm Watch	Issued when there is the potential for significant or hazardous winter weather within 48 hours.
Flash Flood Warning	Issued when flash flooding is imminent or occurring.
Flood Warning	Issued when flooding is imminent or occurring.
Winter Storm Warning	Issued when a significant combination of hazardous winter weather is occurring or imminent.

In a flood incident, such as a levee failure, early alert and notification is critical. Santa Cruz County is committed to notifying the public regarding the conditions of levees, rivers, and tributaries that threaten flooding, and to preemptively initiate evacuations due to a threat.

A well-informed public is likely to respond well in the face of an actual disaster. Santa Cruz County utilizes the following methods to provide emergency information and notifications to the public:

- ◆ CodeRED
- ◆ Reverse 9-1-1 System
- ◆ Nixle

- ◆ Facebook, Twitter, and Instagram
- ◆ Wireless Emergency Alerts (WEA)
- ◆ Emergency Vehicle Loudspeakers
- ◆ Local Media

4.6.1 Notification Protocols

Public notifications can be initiated by the SCCEOC Manager, Deputy SCCEOC Coordinators, or any other authorized Santa Cruz County public safety official to provide emergency information and instructions to residents and businesses. All media outlets should be notified of the emergency as soon as possible for them to provide public alert announcements. The verbal or written messages that will be distributed—whether through the media or other messaging systems—are the responsibility of the Public Information Officer (PIO), the SCCEOC, and the Joint Information Center, when it is open. Sample notices are included in **Appendix A.4**.

In case of an evacuation, the SCCEOC will notify the area’s special needs care providers of the emergency to the extent that contact information is available. These providers will be tasked to notify their clients in the affected area and give instructions to their clients.

4.7 RESOURCES

4.7.1 Staffing

Many Santa Cruz County personnel have collateral responsibilities as emergency responders. Additional flood emergency response staffing comes from other Santa Cruz County agencies and non-government organizations.

4.7.2 Integration with Police and Fire Responders

SEMS creates a system of personnel, policies, procedures, facilities, and equipment that is integrated into a common organizational structure designed to improve emergency response operations of all types and levels of complexity. SEMS creates a flexible, scalable response organization providing a common framework within which people can work together effectively. These people may be drawn from multiple agencies that do not routinely work together. Thus, SEMS provides standard response and operational procedures to reduce problems and potential miscommunications on emergency incidents.

4.7.3 Obtaining and Training Volunteers

One of the most important aspects of flood response is the myriad of government and non-government agencies, organizations, and local businesses that partner with Santa Cruz County. Volunteer groups can provide critical personnel and resources.

Several local Santa Cruz County jurisdictions provide or support a Community Emergency Response Team (CERT) Program. CERT educates people about disaster preparedness for hazards that may affect their area and trains them in basic disaster response skills. Using the training learned in the classroom and during exercises, CERT members assist others in their neighborhood or workplace during an event when professional responders are not immediately available to help. CERT members also support emergency response agencies by taking a more active role in emergency preparedness projects in their community. Each Santa Cruz County jurisdiction with a CERT Program has registered its CERT members as Disaster Service Workers.

4.7.4 Cal OES and DWR Assistance

During emergency response to flooding or storms, Santa Cruz County may require assistance with sand bagging, emergency debris clearance, and similar activities to save lives and protect the public. These activities often require the use of trained crews to augment local personnel. In accordance with SEMS, once local resources are depleted or reasonably committed, mutual aid is accessed and coordinated through the SCCEOC. If Santa Cruz County Operational Area (OA) resources are not sufficient or timely, then the request is forwarded to the Cal OES Coastal REOC. The REOC evaluates and fulfills requests by coordinating mutual aid from unaffected OAs, tasking a State agency, or accessing federal assistance. Due to the nature of the need and the resource, requests for crews are usually tasked to a State agency. Details for acquiring additional resources are contained in **Appendix C**.

4.8 DISASTER INTELLIGENCE

Disaster intelligence refers to the tools and techniques Santa Cruz County uses to identify, collect, analyze, and disseminate information on the current and future extent and consequences of a flood event.

4.8.1 Information Needed and Resources

Weather Forecasts

The advent of satellite imagery and sophisticated computer modeling has significantly improved the ability to forecast times and intensities of rainfall. Managing a flood response requires knowledge and understanding of the implications of weather predictions for other parts of the watershed as well as the local area. The NWS office in Monterey also provides local Santa Cruz County weather forecasts upon request in support of Santa Cruz County emergency response agencies, including the SCCEOC.

River Forecasts and Levels

In addition to precipitation forecasts, emergency managers and response agencies must also know how resulting runoff will affect reservoir storage, releases from dams, and ultimately the amount

of water flowing in a river or creek. Hydrologists with the NWS in the California-Nevada River Forecast Center (CNRFC) provide twice-daily forecasts of river height at various points. The frequency of river forecasts may increase depending on CNRFC staffing levels, event severity, and customer needs.

Critical stream and rain gage data for Santa Cruz County can be found at: <https://santacruz.onerain.com/home.php>

Traffic Information

Similarly, Santa Cruz County maintains regular contact with local and State law enforcement, Department of Transportation, Caltrans, and other agencies to ensure situational awareness of local traffic issues. The SCCEOC coordinates with the SCCDPW to ensure awareness of flooded intersections due to clogged storm drains.

Staging Areas and Stockpiles

The SCCEOC Administration/Finance Branch is responsible for maintaining an inventory of flood response materials, supplies, and locations as described in **Section 6**.

4.9 BUILDINGS USED TO PROVIDE ESSENTIAL SERVICES

Essential Services Buildings consist of any building or portion of a building used or designed to be used as a hospital, fire station, police/sheriff's station, jail, EOC, or emergency communications center. If building occupancy is anticipated to provide essential services pursuant to California Health and Safety Code Section 16000 et seq. (Essential Services Buildings Seismic Safety Act), it is County policy that new buildings shall be required to be located outside an area that may be flooded in the event of any levee failure or will be designed to be operable shortly after the floodwater is removed. Such buildings shall be constructed to minimize and resist flood hazards, either through location outside likely flooded areas or through design. It is also Santa Cruz County policy that the structural systems and details set forth in working drawings and specifications are carefully reviewed by local responsible agencies using qualified personnel and that the construction process is carefully and completely inspected.

It is further County policy that the nonstructural components vital to the operation of essential services buildings shall also be able to resist, insofar as practical, the effects of flooding. Santa Cruz County recognizes that certain nonstructural components housed in essential services buildings, including, but not limited to, communications systems, main transformers and switching equipment, and emergency backup systems, are essential to facility operations and that these nonstructural components should be given adequate consideration during the design and construction process to ensure, insofar as practical, continued operation of the building after a flood.

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SECTION 5—COMMUNICATIONS

This section provides an overview of available emergency communications systems. Supporting State communications resources are listed in **Appendix A**.

5.1 COMMUNICATIONS ORGANIZATION

A fully staffed communications organization consists of a Communications Chief (Public Information Officer, or PIO), available Communications Technicians, Message Center Operators, and Messengers (as needed). Personnel for these positions may come from Santa Cruz County, other local jurisdictions, and/or non-government organization staff. Additional personnel may also be available through the local Radio Amateurs Civil Emergency Service (RACES) organization and from State agencies through mutual aid.

5.2 PUBLIC ALERTING SYSTEMS

5.2.1 CodeRED

CodeRED is a system that delivers voice recorded, text, and TTY messages in English and Spanish languages to a database of landline telephones and mobile devices in a specific geographic area affected by a disaster or emergency as selected by the local government agency, with the following limitations: The telephone database utilizes the existing 9-1-1 residential and yellow pages landline databases. Cellular telephone and email notifications use a database created by individuals registering these devices on the County's website at <https://public.coderedweb.com/CNE/en-US/218A80E36F49>

CodeRED messaging can be initiated by the SCCEOC Manager, Deputy SCCEOC Coordinators, or designated Santa Cruz County public safety officers.

5.2.2 Nixle

Nixle is a community information service dedicated to helping people stay connected to the information that matters most to them depending on their physical location. People can stay connected to their local police department, their children's schools, their local community agencies and organizations, and the important information from other locations throughout the country that are relevant to them. Information is immediately available over your cell phone by text message, by email, and over the web. Each user's account can be customized so they receive only the information that matters most to them, whether it is where they live, work, or have friends or family throughout the country. Only authenticated agencies and community organizations can securely publish information on Nixle. There are four types of messages; *alerts* (many would refer to this as an emergency type alert), *advisories* (less urgent need-to-know information), *community*

information (day-to-day neighborhood to community-level information), and *traffic* (very localized traffic information).

5.2.3 Social Media

The SCCEOC utilizes the following social media platforms to disseminate and receive emergency incident information:

- ◆ Instagram
- ◆ Facebook
- ◆ Twitter

5.2.4 Wireless Emergency Alerts (WEA)

WEAs are made available through the Integrated Public Alert and Warning System (IPAWS) infrastructure as just one of the ways public safety officials can quickly and effectively alert and warn the public about serious emergencies.

Integrated Public Alert and Warning System (IPAWS)

IPAWS is a modernization and integration of the Nation’s existing and future alert and warning systems, technologies, and infrastructure. IPAWS is the latest version of a long list of warning systems the U.S. government has had in place since the 1950s. IPAWS is administered by FEMA and incorporates various forms of alerting and warning systems into one. It is intended to incorporate new technologies as they become available in the future.

5.2.5 Emergency Alert System (EAS)

The Emergency Alert System (EAS) is a network of public and private broadcast stations and interconnecting facilities. The system is authorized by the Federal Communications Commission (FCC) to operate in a controlled manner during a war, state of public peril or disaster, or other national emergency. Table 7 lists the interconnected broadcast facilities in Monterey, San Benito, and Santa Cruz Counties for information dissemination under the EAS format. Access to EAS is coordinated through the SCCEOC. More information is provided in **Appendix D**.

Table 7—FCC Santa Cruz County EAS Plan

Monitoring Station			Stations Monitored		
Station ID	Frequency	Location	Station ID	Frequency	Location
KTOM-FM	100.7 MHz	Salinas	KCBS	740 kHz	San Francisco
			NWR	162.550 MHz	Santa Cruz Mountains
			CLERS	453.875 MHz	Fremont Peak
			KPIG-FM	107.5 MHz	Watsonville
KPIG-FM	107.5 MHz	Santa Cruz	KTOM-FM	100.7 MHz	Salinas
			NWR	162.550 MHz	Santa Cruz Mountains
			CLERS	453.875 MHz	Fremont Peak
All other stations and CATV control points must monitor TWO of the following			KTOM-FM	100.7 MHz	Salinas
			KTOM-FM	100.9 MHz	Salinas
			KPIG-FM	107.5 MHz	Watsonville
Recommended additional, but not replacement monitoring			NWR	162.550 MHz	Santa Cruz Mountains
			CLERS	453.875 MHz	Fremont Peak

Reference: Santa Cruz Bay Area FCC Local Area EAS Plan (December 2002)

5.3 LOCAL EMERGENCY COMMUNICATION SYSTEMS

The following **local** emergency communications systems operate within Santa Cruz County.

5.3.1 Radio Communication Systems

Santa Cruz County utilizes radio communications systems as summarized in Table 8.

Table 8—Santa Cruz County Radio Communication Systems

Agency / Department	Radio Communications System
Sheriff's Department	700/800 MHz Digital / VHF Analog
Public Works Department	VHF Analog/Digital
Aptos/La Selva FPD	VHF Analog/Digital
Ben Lomond Fire Department	VHF Analog/Digital
Boulder Creek Fire Department	VHF Analog/Digital
Branciforte Fire Department	VHF Analog/Digital
CAL FIRE	VHF Analog/Digital
Central Fire District of Santa Cruz County	VHF Analog/Digital
Felton Fire District	VHF Analog/Digital
Scotts Valley FPD	VHF Analog/Digital
Zayante Fire Department	VHF Analog/Digital
Amateur Band (RACES)	UHF, VHF, HF

5.3.2 Consolidated Public Safety Communications System (CPSCS)

Santa Cruz Regional 9-1-1 (SCR911) serves as the primary 9-1-1 public safety answering point (PSAP) for all unincorporated areas of the County and for most of the cities.

In addition to the locally available radio dispatch and communications frequencies, SCR911 can also communicate with most other local, State, and federal law enforcement, fire and rescue, and EMS agencies that are not officially part of the Consolidated Public Safety Communications System (CPSCS), including but not limited to:

- ◆ Bureau of Land Management
- ◆ CAL FIRE
- ◆ California Department of Fish and Wildlife
- ◆ California State Parks Department
- ◆ University of California, Santa Cruz

5.3.3 Local Communications Support Resources

This section describes locally available communications resources.

Mobile Emergency Communications/Command Unit (MCC)

The Santa Cruz County Sheriff’s Office maintains a fully equipped mobile emergency communications/command unit (MCC) that may be used to support or enhance existing emergency communications anywhere in the County. The MCC is totally self-contained and possesses public safety and local government radio dispatch capabilities for use during emergency situations. Requests for use of the MCC by any local government agency should be made directly through the SCR911 or through the SCCEOC when activated.

Radio Amateur Civil Emergency Services (RACES)

The Radio Amateur Civil Emergency Service (RACES) network operates on amateur radio frequencies (UHF, VHF, HF) by authority of the FCC in support of emergency communications operations. RACES can augment existing public radio systems, substitute for damaged or inoperable systems, and establish communications links with otherwise inaccessible areas. RACES capabilities also include the transmission of data and video signals by means of sophisticated communications relays and data processing equipment.

The SCCEOC has an assigned volunteer Auxiliary Communications Support Officer who functions as the District Emergency Coordinator, with a contingent of locally based volunteers assigned to each municipality within the County. In addition, several cities and public non-profit organizations within the County maintain similar RACES communications capabilities. These are highly dynamic capabilities provided by skilled volunteers. Capabilities included multi-channel amateur radios, radio-transmitted electronic data systems, and the ability to transmit and receive remote video.

All RACES volunteers serve as Disaster Service Workers when officially activated. Some cities may also have established amateur radio organizations assigned to support their local EOC operations. When the SCCEOC is activated, local RACES networks coordinate with the RACES Coordinator assigned by the SCCEOC.

Citizens’ Band Radio (CB)

The FCC permits CB radio operations in emergency services activities on a voluntary basis under the direction of emergency services authorities. However, uncontrolled frequency use, overloading, and poor transmission quality limit the usefulness of this system. The Santa Cruz County Office of Emergency Services, SCR911, and SCCEOC do not monitor CB channels.

5.3.4 Telephone Systems

Common Carrier Telephone Service (Landline Service)

Common carrier landline phone service is available throughout most of the County to support all emergency systems. A directory of emergency contacts is found in **Appendix A**.

Cellular Telephone Service

Cellular telephone service in Santa Cruz County is provided by multiple service providers, including AT&T, Sprint, T-Mobile, and Verizon, with service available in most inhabited areas of the County.

5.3.5 Weak Links

Telecommunications are composed of many subsystems, each interconnected and interdependent. A radio network, for example, may use a combination of telephone lines, microwave circuits, satellite interfaces, underground and overhead cables, and secondary radio paths. The failure of any link in this electronic “chain” can disable a large portion of the system.

Santa Cruz County’s solution to these communications weaknesses has been to develop a fault-tolerant system where a failure of one weak link can be addressed by redundant capacity elsewhere in the system.

Loss of Electrical Power

Loss of electrical power has been the primary cause of communications failure in past emergencies. SCR911’s solution to electrical power loss has been to ensure proper installation and maintenance of emergency standby generators at all critical communications facilities. SCR911 regularly tests and maintains its emergency standby generators and has established procedures to maintain uninterrupted fuel supplies for these generators during long-term electrical power outages.

5.4 PROTOCOLS FOR COMMUNICATIONS WITH LEVEE PATROLS

Communication with Levee Patrol Team(s) is conducted in accordance with established SCCDPW procedures. In general, communications with Levee Patrol Teams will be through the SCCDPW Flood Control Manager or designated delegate, whomever is responsible for maintaining communication and coordination with the SCCEOC Operations Chief.

5.4.1 Other Communications Protocols

All other emergency incident communications shall be conducted in accordance with an Incident Communications Plan, as documented on ICS forms ICS 204 and ICS 205.

5.5 INTEGRATION AND INTEROPERABILITY

Communication system interoperability is essential to effective emergency management during flood response. At the most basic level, interoperability allows two or more parties to exchange information directly. First responders at the scene can instantly connect and communicate with

each other, make the contacts needed to bring in additional resources, coordinate rescue missions, and provide other forms of response to threats and emergencies.

The Santa Cruz County Sheriff's Office MCC has cross-band repeaters that can connect differing radio communication frequencies and has a cache of portable radios that can be deployed to ensure emergency incident interoperability. In addition, portable radio caches are available through CAL FIRE and Cal OES to ensure flood incident interoperability.

5.6 MEDIA INTERFACE

The SCCEOC generally will establish a Joint Information Center and designate a PIO during flood incidents. A PIO is a spokesperson responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other agencies and organizations. Only one PIO will be assigned for each incident, including incidents operating under Unified Command and multi-jurisdictional incidents. The PIO may have Assistant PIOs as necessary, and the Assistant PIO may also represent assisting agencies or jurisdictions. An Assistant PIO may be assigned to help an Incident Commander on scene.

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SECTION 6—ADMINISTRATION, FINANCE, AND LOGISTICS

6.1 MASTER MUTUAL AID AGREEMENT

The foundation of California’s emergency planning and response is a Statewide mutual aid system. Mutual aid is designed to ensure that adequate resources, facilities, and other support are provided to jurisdictions whenever their own resources prove inadequate to cope with a situation. The basis for the system is the California Disaster and Civil Defense Master Mutual Aid Agreement pursuant to the California Emergency Services Act. It creates a formal structure within which each jurisdiction retains control of its own personnel and facilities but can give and receive help when needed. State government, on the other hand, is obligated to provide available resources to assist local jurisdictions in emergencies.

The SCCEOC maintains a current Emergency Management Plan (EMP) compatible with the California Disaster and Civil Defense Master Mutual Aid Agreement. This WSRP is a component of that plan and is designed to apply local resources to meet flood response requirements of the immediate community or its neighbors. This WSRP is coordinated with those of neighboring jurisdictions to ensure mutual compatibility.

6.2 RECORD KEEPING

Santa Cruz County tracks, records, and reports all Santa Cruz County flood response personnel work time. The County also collects and maintains documentation on all emergency information needed for reimbursement by Cal OES or FEMA and maintains these records for audit purposes for at least three years after receiving the final FEMA close-out letter.

6.3 RESOURCE TRACKING

Comprehensive resource management is a key emergency management principle. It implies that all assets and personnel during an emergency event need to be tracked and accounted for. It ensures maintenance of accountability of all resources. Thus, these resources can be moved quickly to support preparation and response to an incident and ensure a fluid demobilization.

Resource management involves coordinating and overseeing the acquisition and deployment of tools, supplies, equipment, and personnel during an emergency incident. The objective of resource management is to (1) maximize resource utilization effectiveness while maintaining cost-efficiency and resource safety, (2) consolidate control of single resources in order to reduce communications activity, and (3) ensure resource accountability. Resource management enhances the benefit of mutual aid agreements and improves interoperability.

Flood response resources include: (1) personnel or equipment to perform specific operations, and (2) supplies and facilities to support on-scene incident operations. The SEMS Logistics Section typically orders supply items (e.g., food) and facilities (e.g., equipment staging). The SEMS Finance/Administration Section tracks the use of and maintains records of the resources assigned to flood response.

6.4 FLOOD FIGHT EQUIPMENT

The following table describes the flood fight equipment maintained and stored at the SCCDPW Roy Wilson Maintenance Yard in Watsonville.

Table 9—Flood Fight Equipment

No.	Description
10	Vest, yellow or orange reflective
5	Safety light, personal
10	Personal Flotation Device (PFD)
10	Safety Glasses, clear
5	Raincoats, assorted sizes
5	Rain Pants, assorted sizes
10	Rain boots, assorted sizes
25	Work gloves, assorted sizes, pair
15	Flashlight, watertight
3	GPS unit, handheld
5	Floodlight, 500-watt, portable
1	Generator, 3,000-watt or larger
5	Radio, portable
10,000	Sand bags (18" x 30" x 10oz.)
15	Rolls, visquine plastic (100' x 20' x 10 mil)
5	Rolls, yellow safety flagging tape
80	Stakes, wood (1" x 3" x 24")
4	Boxes, twine (200 lb. test)
250	Buttons, tie-down
15	Shovels, LHFP
15	Shovels, LHRP
4	Sledge Hammer (10 lb.)
3	Pulaski
10	Loppers
10	First Aid Kit

Source: Santa Cruz County Department of Public Works

6.5 FLOOD FIGHT SUPPLIES

Sand and sandbags are available to the public at the SCCDPW Maintenance Yard at 198 Grimmer Road, Watsonville, (831) 400-8081.

6.6 STAGING AREAS

Santa Cruz County has identified the following locations for use as staging areas for incoming emergency response resources.

Table 10—Staging Areas

Staging Area		Location	Emergency Contact Information	
1	Rodriguez Pit	390 Hames Road, Watsonville	Elliot Vega Vance Wagner	(831) 400-8081 (831) 345-7574
2	Corralitos Fire Department	120 Eureka Canyon Road, Watsonville	Elliot Vega Vance Wagner	(831) 400-8081 (831) 345-7574
3	Santa Cruz County Fairgrounds	2601 E. Lake Ave, Watsonville	Elliot Vega Vance Wagner	(831) 400-8081 (831) 345-7574
4	Public Works Maintenance Yard	198 Grimmer Road, Watsonville	Elliot Vega Vance Wagner	(831) 400-8081 (831) 345-7574

Source: Santa Cruz County Department of Public Works

6.7 EVACUATION CENTERS

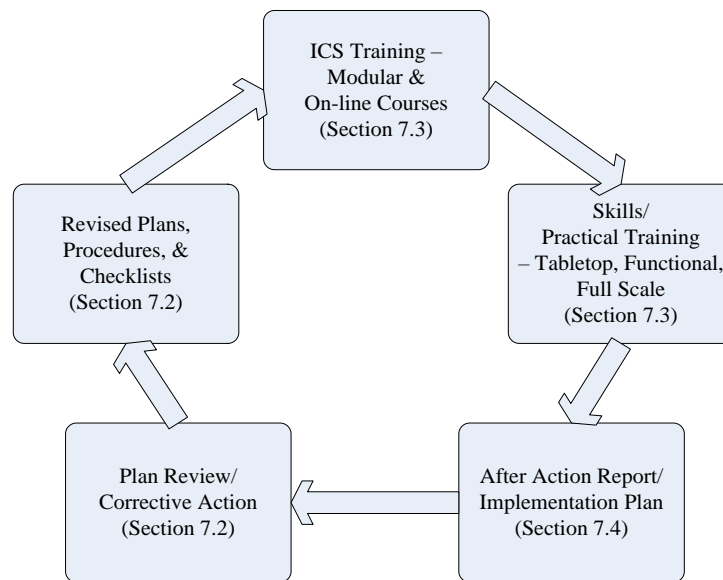
The Monterey-San Benito-Santa Cruz Chapter of the American Red Cross (ARC) maintains an inventory of available emergency evacuation shelter sites throughout Santa Cruz, San Benito, and Monterey Counties. The ARC provides a liaison to serve as the Mass Care Unit Leader in the SCCEOC who will coordinate the activation/opening of appropriate shelter site(s) in the event of a flood evacuation.

SECTION 7—PLAN DEVELOPMENT AND MAINTENANCE

7.1 PLAN DEVELOPMENT

The Santa Cruz County OES has primary responsibility for developing, reviewing, and updating this WSRP on a regular basis. OES will solicit input from individuals, jurisdictions, and agencies having responsibilities under this plan. Figure 5 shows the Santa Cruz County Winter Storm Response Plan maintenance cycle.

Figure 5—Winter Storm Response Plan Maintenance Cycle



7.2 PLAN REVIEW AND MAINTENANCE

Agencies and individuals providing emergency response will review this plan at least annually. In addition, this plan may be modified as a result of post-incident analyses and/or post-exercise critiques:

- ◆ Proposed changes shall be submitted in writing to the Santa Cruz County OES Manager
- ◆ Changes shall be published and distributed to jurisdictions and agencies holding this plan

Every four years, this plan will be reviewed in its entirety, updated as appropriate, republished, and redistributed. This plan also may be modified whenever responsibilities, procedures, laws, rules, or regulations pertaining to emergency management and operations change.

- ◆ Jurisdictions and agencies having assigned responsibilities under this plan are obligated to inform the Santa Cruz County OES Manager when changes occur or are imminent
- ◆ These changes will be incorporated into this plan, published, and re-distributed to jurisdictions and agencies holding this plan

7.3 TRAINING AND EXERCISES

All Santa Cruz County emergency responders are strongly encouraged to take advantage of FEMA’s online training. In addition, Santa Cruz County OES will notify holders of this plan of training opportunities or scheduled exercises associated with flood emergency management and operations, such as DWR’s flood fight training sessions. Individual jurisdictions and agencies are responsible for maintaining appropriate training records. Santa Cruz County OES will conduct emergency preparedness exercises, including this plan, in accordance with its annual exercise plan and schedule. Jurisdictions and agencies having assigned responsibilities under this plan must ensure assigned personnel are properly trained to carry out these responsibilities. See **Appendix B.2** for specific levee patrol information and **Appendix C.9** for flood fight information. Following approval of this WSRP, Santa Cruz County OES may schedule and conduct a tabletop exercise.

7.4 EVALUATION

Santa Cruz County OES will coordinate and facilitate post-incident analyses following emergencies and exercises. An After-Action Report and Implementation Plan will be prepared by the OES Manager and distributed to those jurisdictions and agencies involved in the emergency or exercise.

SECTION 8—AUTHORITIES AND REFERENCES

The following sources provide authorities for planning, conducting, and/or supporting flood emergency operations.

8.1 FEDERAL AUTHORITIES AND REFERENCES

- ◆ Federal Civil Defense Act of 1950 (Public Law 920, as amended)
- ◆ Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (Public Law 93-288, as amended)
- ◆ Army Corps of Engineers Flood Fighting (Public Law 84-99)

8.2 STATE AUTHORITIES AND REFERENCES

- ◆ California Emergency Services Act (Chapter 7, Division 1 of Title 2 of the Government Code)
- ◆ Standardized Emergency Management System (SEMS) Regulations (Chapter 1 of Division 2 of Title 19 of the California Code of Regulations) and (California Government Code §8607 et sec)
- ◆ Hazardous Materials Area Plan Regulations (Chapter 4 of Division 2, Title 19, Article 3, §2720-2728 of the California Code of Regulations) and California Health and Safety Code (Division 20, Chapter 6.95, Section 25503.5)
- ◆ California Department of Water Resources Flood Control (California Water Code §128)

8.3 LOCAL AUTHORITIES AND REFERENCES

- ◆ Emergency organization and disaster procedures Ordinance No. 2532 adopted by the Santa Cruz County Board of Supervisors on February 21, 1978
- ◆ Resolution by the Santa Cruz County Board of Supervisors adopting the California Master Mutual Aid Agreement in July 1958
- ◆ Santa Cruz County Code, Title 2, Chapter 2.26 Emergency Services
- ◆ SEMS Memorandum of Understanding for the Santa Cruz Operational Area approved by the Santa Cruz County Board of Supervisors on October 25, 1994
- ◆ Adoption of the Santa Cruz County Emergency Management Plan by the Santa Cruz County Board of Supervisors in October 2015

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APPENDIX A—COMMUNICATIONS SUPPORT

A.1 COMMUNICATIONS SUPPORT

The following are sources of communications support available to local emergency operations, with support being dependent upon the type and magnitude of the emergency.

A.1.1 California Office of Emergency Services (Cal OES)

Cal OES maintains several communications support capabilities available for use by local governments during major emergencies. All requests for Cal OES communications support will be processed through the SCCEOC, or SCR911 if the SCCEOC is not activated. Technical advice also is available by contacting the Cal OES Warning Center at (916) 845-8911.

A.1.2 Mobile Satellite Communications Units

Cal OES maintains and operates several mobile satellite communications units that can be driven, transported by trailer, or airlifted to any location in the State to provide dedicated voice and data satellite transmission capability. These mobile units are positioned throughout the State and may be sent into local jurisdictions to support emergency communication needs. The mobile satellite communications units are part of the Statewide Operational Area Satellite Information System (OASIS) network.

A.1.3 Operational Area Satellite Information System (OASIS)

There are independent OASIS locations available within the OA, allowing for rapid, reliable communications with Regional/State and OA Command Centers. Both the SCCEOC and SCR911 have OASIS capability.

A.1.4 Mobile Command and Communication Resources

Cal OES maintains two mobile command units available for deployment during major emergencies. These mobile command units consist of integrated communications and command vans and appropriate support vehicles and equipment.

The primary purpose of these mobile command units is to provide initial field communications information until more sophisticated communications are established and/or restored. Each of the units is equipped for operations on each of the major State radio systems, the OASIS, mutual aid radio systems, and amateur radio (RACES) frequencies. Radio operators must be provided by the requesting agency.

A.1.5 Portable Radio Caches

Cal OES also maintains caches of portable radios capable of operating on selected Statewide law enforcement and fire and rescue mutual aid frequencies. These radios are available to local governments upon request.

A.2 STATE RADIO SYSTEMS

Several public safety radio networks are operated and maintained by the State of California for the purpose of coordinating interagency public safety communications.

A.2.1 California Law Enforcement Mutual Aid Radio System (CLEMARS)

CLEMARS interconnects law enforcement agencies of all counties and numerous cities. This system is microwave-interconnected to provide Statewide coverage. There are CLEMARS frequencies in each public safety radio band (except the 220–222 MHz band). CLEMARS is used for on-scene law enforcement communications. The Nationwide law enforcement frequency of 155.475 is included in the CLEMARS plan.

A.2.2 California Law Enforcement Radio System (CLERS)

CLERS—various frequencies in 150 and 450 MHz bands—is the law enforcement “dispatcher-to-dispatcher” mutual aid network and consists of 26 “cells” covering the State. CLERS also serves as the State’s distribution network for EAS program feeds and is occasionally used by California Highway Patrol aircraft to coordinate with its operations bases.

A.2.3 California Emergency Services Radio System (CESRS)

CESRS—153.755 MHz [154.980 input]—is a local government system that serves all Cal OES facilities, a number of State agencies other than Cal OES, and county-level emergency management agencies participating in the system. This system is also microwave-interconnected for Statewide coverage.

A.2.4 OES Fire (and Rescue Radio Network)

OES Fire—154.160 and 154.220 (with a combination of 33 and 159 MHz inputs)—serves fire support equipment. Radio equipment on this network is located with fire service agencies in 52 counties. The network employs mountaintop mobile relays and interconnects to the State Microwave System to provide Statewide coverage.

A.3 EMERGENCY CONTACT DIRECTORY

The SCCEOC maintains a roster of emergency contact information for key flood response personnel. In addition, the Santa Cruz County Flood Forecasting and Flood Operations Manual contains emergency contact information for key Santa Cruz County agencies and departments.

A.4 SAMPLE MEDIA RELEASES

The following sample media releases are based on templates provided by the DWR.

Sample Media Release – Flood Preparedness

MEDIA RELEASE: Winter Storm Awareness Week and Family Preparedness Planning

Santa Cruz County has issued a proclamation designating [INSERT DATE] as Winter Storm Awareness Week. Residents in low-lying and other potentially vulnerable areas should consider actions to protect themselves and their loved ones should a flood threaten their residence. In the event of a flood, residents should monitor local news media and should take the following steps:

- **Review family emergency plans:** Residents living in areas subject to flooding should make plans now should an action become necessary. Prepare for overnight stays away from home, with options including a hotel, motel, or friend’s home that is outside the vulnerable area, or an American Red Cross shelter. The earlier you leave a potentially flooded area, the less time you will spend on the road. For more information on Family Disaster Plans, go to: <https://www.cdph.ca.gov/Programs/EPO/Pages/BePreparedCalifornia.aspx>.
- **Fuel cars and secure your family Emergency Supply Kit, including important documents:** Individuals and families should fill up their cars with gas. Maps, water, nonperishable foods, a first-aid kit that includes a supply of your family’s prescription medications, and convenience items such as diapers and other items should be available for immediate transport in case of emergency. Secure important documents in waterproof packaging. For more information on Emergency Supply Kits, go to: <https://www.cdph.ca.gov/Programs/EPO/Pages/PrepareanEmergencySupplyKit.aspx>.
- **Consider the safety of pets:** Pets are family members and their safety is important too. However, they may not be allowed in Red Cross shelters. Individuals and families should plan to board pets with friends, relatives or boarding facilities in non-vulnerable areas. Identification and rabies tags should be attached to pets’ collars.
- **Register for special medical care:** Residents with special medical needs who may require transportation or medical care should contact their local emergency management office if they have not already done so. Special medical needs shelters can require advance registration.

Sample Media Release – Possible Flooding

MEDIA RELEASE: Santa Cruz County Warns of Potential Impacts

The Santa Cruz County Office of Emergency Services advises residents to prepare for upcoming winter storm, including possible flooding.

People in potentially vulnerable areas should review family emergency plans and consider actions they would need to take should flooding occur. The public should monitor local news media, especially people in low-lying areas.

People in potentially vulnerable areas should:

- **Review family emergency plans:** Residents living in areas subject to flooding should make plans now should an action become necessary. Prepare for overnight stays away from home, with options including a hotel, motel, or friend’s home that is outside the vulnerable area, or an American Red Cross shelter. The earlier you leave a potentially flooded area, the less time you will spend on the road. For more information on Family Disaster Plans, go to: <https://www.cdph.ca.gov/Programs/EPO/Pages/BePreparedCalifornia.aspx>.
- **Fuel cars and secure your family Emergency Supply Kit, including important documents:** Individuals and families should fill up their cars with gas. Maps, water, nonperishable foods, a first-aid kit that includes a supply of your family’s prescription medications, and convenience items such as diapers and other items should be available for immediate transport in case of emergency. Secure important documents in waterproof packaging. For more information on Emergency Supply Kits, go to: <https://www.cdph.ca.gov/Programs/EPO/Pages/PrepareanEmergencySupplyKit.aspx>.
- **Consider the safety of pets:** Pets are family members and their safety is important too. However, they may not be allowed in Red Cross shelters. Individuals and families should plan to board pets with friends, relatives or boarding facilities in non-vulnerable areas. Identification and rabies tags should be attached to pets’ collars.
- **Register for special medical care:** Residents with special medical needs who may require transportation or medical care should contact their local emergency management office if they have not already done so. Special medical needs shelters can require advance registration.

Sample Media Release – Probable Flooding

MEDIA RELEASE: Flooding Likely, Residents Advised to Take Immediate Action

The Santa Cruz County Office for Emergency Services advises residents in the [INSERT SPECIFIC IMPACTED AREAS HERE] areas to prepare for likely flooding. Forecast models show flooding likely in those areas beginning at [INSERT START TIME] and continuing through [INSERT END TIME].

Residents should monitor local news media for updates. Impacted residents should prepare their homes, gather supplies, review their plans, and prepare for possible evacuation.

Santa Cruz County has activated its Emergency Operations Center, instituted levee patrols and taken other proactive measures [LIST IF APPLICABLE]. Partner agencies including first responders are also monitoring the situation.

If you live in a highly vulnerable area you should be prepared to leave immediately.

- **Prepare to evacuate if ordered to do so:** Residents living in vulnerable areas and those living in mobile homes must plan their evacuation now. Select a destination, such as a hotel, motel, or friend’s home that is outside the vulnerable area, or an American Red Cross shelter. Hotels and motels fill up quickly and evacuation out of the County takes additional time. {LIST ARC SHELTER LOCATIONS IF APPLICABLE}.
- **Review family emergency plans:** Residents living in areas subject to flooding should make plans now should an action become necessary. Prepare for overnight stays away from home, with options including a hotel, motel, or friend’s home that is outside the vulnerable area, or an American Red Cross shelter. The earlier you leave a potentially flooded area, the less time you will spend on the road. For more information on Family Disaster Plans, go to: <https://www.cdph.ca.gov/Programs/EPO/Pages/BePreparedCalifornia.aspx>.
- **Fuel cars and secure your family Emergency Supply Kit, including important documents:** Individuals and families should fill up their cars with gas. Maps, water, nonperishable foods, a first-aid kit that includes a supply of your family’s prescription medications, and convenience items such as diapers and other items should be available for immediate transport in case of emergency. Secure important documents in waterproof packaging. For more information on Emergency Supply Kits, go to: <https://www.cdph.ca.gov/Programs/EPO/Pages/PrepareanEmergencySupplyKit.aspx>.
- **Consider the safety of pets:** Pets are family members and their safety is important too. However, they may not be allowed in Red Cross shelters. Individuals and families should plan

to board pets with friends, relatives or boarding facilities in non-vulnerable areas. Identification and rabies tags should be attached to pets' collars.

- **Register for special medical care:** Residents with special medical needs who may require transportation or medical care should contact their local emergency management office if they have not already done so. Special medical needs shelters can require advance registration.

Sample Media Release – Imminent or Occurring Flooding

EAS MESSAGE: Voluntary Evacuation

The Santa Cruz County Office of Emergency Services is requesting that residents in [LIST IMPACTED AREAS] voluntarily evacuate due to imminent flooding. Emergency Services strongly recommends immediate action to protect the safety of yourself and your loved ones.

Mandatory evacuation of low-lying areas or along rivers and streams has not been issued at this time but remains a possibility.

American Red Cross shelters will be open at the following locations:

- SITE 1
- SITE 2
- SITE 3

The Santa Cruz County Sheriff's Office and local law enforcement officers are assisting with evacuations. In addition, these officers will secure the property of residents who evacuate and will enforce the law in evacuation zones.

EAS MESSAGE: Mandatory Evacuation

Santa Cruz County is requesting activation of the Emergency Alert System at the direction of the County Administrative Officer. The CAO has ordered a mandatory evacuation of all persons located in (describe affected areas by landmarks when possible.)

Law enforcement personnel may be posted along evacuation routes to help people move as safely and quickly as possible. The CAO has ordered the mandatory evacuation in order to safeguard human life in Santa Cruz County.

Sample Media Release – Flooded Area Re-Entry

The Santa Cruz County Office of Emergency Services has lifted the mandatory evacuation order for [LIST SPECIFIC AREAS].

Residents are advised to exercise caution when returning home. Residents should keep the following precautions in mind.

- (STATED)Be on the lookout for new hazards created by the flood, such as washed out roads, contaminated buildings, contaminated water, gas leaks, broken glass, downed power lines or damaged wiring, and slippery floors.
- Keep a battery-powered radio with you so you can listen for emergency updates.
- Wear sturdy work boots and gloves.
- Before going inside, walk carefully around the outside of your home and check for loose power lines, gas leaks, and structural damage. Do not enter if flood water remains around the building. If you have doubts about safety, have your home inspected by a professional before entering.
- Use a battery-powered flashlight for light. DO NOT use oil, gas lanterns, candles, or torches. Leaking gas or other flammable materials may be present. Do not smoke. Do not turn on the lights until you are sure they're safe to use.
- Wear sturdy work boots and gloves and wash your hands thoroughly with soap and clean water often when working in debris.
- Inform local authorities about health and safety hazards, including downed power lines, washed out roads, smoldering insulation, or dead animals.
- Watch out for animals, especially poisonous snakes. Use a stick to poke through debris.
- Enter buildings carefully and check for damage.
- Check for gas leaks, starting at the hot water heater. If you smell gas or hear a hissing or blowing sound, open a window and leave immediately. Turn off the main gas valve from the outside, if you can. Call the gas company from a neighbor's house. If you shut off the gas supply at the main valve, you will need a professional to turn it back on.
- Check the electrical system. If you see sparks, broken or frayed wires, or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker if you are not wet and can do so without standing in water. If you have any doubts about your ability to turn off the electricity safely, leave the house and call a professional.

- Check appliances. If appliances are wet, turn off the electricity at the main fuse box or circuit breaker. Then unplug appliances and let them dry out. Have appliances checked by a professional before using them again.
- Check the water and sewage systems. If pipes are damaged, turn off the main water valve.
- Clean up spilled medicines, bleaches, and gasoline. Open cabinets carefully. Be aware of objects that may fall.
- Look for valuable items, such as jewelry and family heirlooms, and protect them.
- Try to protect your home from further damage. Open windows and doors to get air moving through. Patch holes.
- Clean and disinfect everything that got wet. The mud left behind by floodwaters can contain sewage and chemicals.
- Check with local authorities before using any water; it could be contaminated. Wells should be pumped out and the water tested before drinking.
- Throw out fresh food that has come into contact with flood waters. Check refrigerated food for spoilage. Throw out flooded cosmetics and medicines.
- Call your insurance agent. Take pictures of damages. Keep good records of repair and cleaning costs.
- Tune to local radio and television stations and read local newspapers for information regarding financial assistance, emergency housing, food, first aid, and clothing.

The Office for Emergency Services also advises residents that returning to damaged homes can impact families.

- Be aware of exhaustion. Resist the tendency to do too much at once. Set your priorities and pace yourself. Create a manageable schedule.
- Watch for signs of stress and fatigue. Talk about the situation with others to release tensions. Encourage others to talk about their concerns. Get professional crisis counseling if necessary.
- Encourage children to talk about their feelings. Explain how you plan to deal with the situation. Involve them in cleanup activities. Being part of the recovery process will help them cope. Keep the family together.
- Drink plenty of clean water. Try to eat well and get enough rest.

APPENDIX B—LEVEE PATROL

B.1 PURPOSE

The purpose of levee patrols is to have qualified personnel visually evaluate the performance of the Lower Pajaro River levee system. The intent is to determine the condition of the levee and to identify potential and existing problems, including:

- ◆ Threats
- ◆ Instabilities
- ◆ Seepage conditions
- ◆ Erosion points
- ◆ Freeboard

Implementation of the following program will ensure that each member of a Levee Patrol Team is capable of participating in precautionary actions and emergency response that may occur within the Lower Pajaro River levee system.

This program is the responsibility of the Zone 7 Flood Control District, with operational support from other Santa Cruz County departments and agencies. The major objectives of this program include:

- ◆ Developing a training program to ensure qualified personnel are available to conduct levee patrol activities
- ◆ Ensuring that appropriate materials, equipment, and supplies are available to implement this program, and are maintained in a serviceable condition to meet the needs of Santa Cruz County
- ◆ Ensuring action levels are established and in place to manage potential challenges
- ◆ Preparing personnel to recognize the interface between allied agencies should escalating events require large-scale operations
- ◆ Preparing personnel to patrol levees to locate potential problems (including vandalism or terrorism), to alert the SCCEOC, and to actively coordinate work, using recognized flood fight or other recommended methods to resolve problems and minimize adverse consequences

B.2 PROGRAM ELEMENTS

The levee patrol program has three basic components – Training, Equipment Procurement and Maintenance, and Levee Patrols.

B.2.1 Component I – Training

All personnel who may be assigned to levee patrol during a winter storm event shall complete the following training prior to assignment for levee patrol.

- ◆ Classroom (3 hours)
 - Basic levee design
 - Recognizing potential problem characteristics
 - Notification/warning system
 - Specific levee patrol assignments
 - Command structure
 - Safety considerations
- ◆ Practical Training (3 hours)
 - Filling and use of sandbags
 - Patching of boils
 - Safety precautions

During flood emergency response conditions, new or volunteer personnel who have not yet received the practical training component will be partnered with experienced levee patrol personnel who will assist and instruct them and ensure that established safety protocols are followed.

B.2.2 Component II – Equipment Procurement and Maintenance

The Santa Cruz County Department of Public Works is responsible for ensuring that the following flood fight equipment is maintained in serviceable condition at the Roy Wilson Maintenance Yard in Watsonville.

**Table 11—Flood Fight Equipment Inventory – Public Works Maintenance Yard
(Watsonville)**

No.	Description
10	Vest, yellow or orange reflective
5	Safety light, personal
10	Personal Flotation Device (PFD)
10	Safety Glasses, clear
5	Raincoats, assorted sizes
5	Rain Pants, assorted sizes
10	Rain boots, assorted sizes
25	Work gloves, assorted sizes, pair
15	Flashlight, watertight
3	GPS unit, handheld
5	Floodlight, 500-watt, portable
1	Generator, 3,000-watt or larger
5	Radio, portable
10,000	Sand bags (18" x 30" x 10oz.)
15	Rolls, visquine plastic (100' x 20' x 10 mil)
5	Rolls, yellow safety flagging tape
80	Stakes, wood (1" x 3" x 24")
4	Boxes, twine (200 lb. test)
250	Buttons, tie-down
15	Shovels, LHFP
15	Shovels, LHRP
4	Sledge Hammer (10 lb.)
3	Pulaski
10	Loppers
10	First Aid Kit

Source: Santa Cruz County Department of Public Works

B.2.3 Component III – Levee Patrols

The assigned Levee Patrol Supervisor will establish levee patrol routes that ensure complete coverage and, wherever possible, overlapping coverage. The Levee Patrol Supervisor is also responsible to physically account for all personnel working under their control on an hourly basis

and to ensure that all patrol personnel receive a safety briefing prior to commencing work and use all provided safety gear.

Motor Patrols

A levee motor patrol will be initiated on the Santa Cruz County side of the Lower Pajaro River when slow rise flood waters reach 25 feet at Chittenden, or at the direction of the SCCDPW Duty Supervisor. The levee motor patrol will consist of the following:

- ◆ Two four-wheel drive vehicles with mobile radio capabilities
- ◆ Two trained and currently qualified observers per vehicle
- ◆ Patrol areas are shown on the following map
- ◆ Patrol crews will be rotated at least every 12 hours
- ◆ Completion of a Division Activity Log (ICS Form 214) will be required for each shift
- ◆ All members will receive a safety briefing and utilize appropriate safety clothing/equipment

Santa Cruz County
Winter Storm Response Plan

Figure 6—Lower Pajaro River Levee Patrol Area (Zone 7 only responsible for levee reaches within Santa Cruz County)



B.2.4 High Water Staking Procedures

Levee patrol personnel shall record the extent of high water by placing markers (stakes) periodically as the event progresses and reference the high-water locations with suitable surveying or GPS locations. Levee water level information shall be provided to the SCCEOCC and DWR as requested.

B.3 AUGMENTING STAFF

When local personnel resources are depleted or reasonably committed, mutual aid may be requested and coordinated by the SCCEOC. If OA resources are not sufficient or timely, the SCCEOC will then forward the request to the REOC. The REOC evaluates and fills requests by (1) staff from unaffected OAs, (2) tasking a State agency, or (3) accessing federal assistance. See **Appendix C.4** for procedures.

APPENDIX C—FLOOD FIGHT

C.1 FLOOD FIGHT TRIGGER POINTS

At the Action Stage, or upon notification of a potential problem by a levee patrol, SCCDPW will coordinate with the responsible agency(s) to open pre-designated staging areas as identified in Table 10 for supplies, equipment, and personnel. Santa Cruz County has ensured that the designated staging areas are a safe distance from other emergency facilities, such as evacuation centers, shelters, and Incident Command Posts. Commence filling sandbags as required by the situation.

C.2 PRIORITIZATION

Zone 7 will use available resources and personnel to address boils, rising water / loss of freeboard, slumps, and sloughs to the full extent of its training and capability. Flood fight priorities will include evaluation of opportunities for delaying or containing the spread of flood waters after a breach and develop reasonably detailed plans to accomplish the same (such as using an elevated roadway or rail line as a secondary line of defense or plugging culverts and underpasses) for various levee breach locations. In most cases, relief cuts should be evaluated and planned to be made immediately after a levee breach to limit flooding in the area with specific location, length, depth, equipment required, contractors, and evacuation rates.

All flood fight operations shall be conducted in conformance with California Standardized Emergency Management System (SEMS) guidelines and procedures, including use of the Incident Command System (ICS) to provide common emergency incident organization structure and terminology to ensure clear communication and coordination of interjurisdiction and interagency response to flood emergencies. Flood events involving multiple contiguous jurisdictions within Santa Cruz County shall establish a Unified Command pursuant to the ICS to establish overall priorities for flood fight operations. All jurisdictional/agency incident commanders will participate in an initial unified command meeting to provide responsible agency officials with an opportunity to discuss and concur on important issues prior to joint incident action planning. The agenda for the unified command meeting shall include the following:

- ◆ Establish jurisdictional/agency priorities and objectives
- ◆ Present jurisdictional limitations, concerns, and restrictions
- ◆ Develop a collective set of incident objectives
- ◆ Establish and agree on acceptable priorities
- ◆ Adopt the overall strategy or strategies to accomplish objectives

- ◆ Agree on the basic organization structure
- ◆ Designate the most qualified and mutually-acceptable Operations Section Chief (the Operations Section Chief will normally be from the jurisdiction or agency that has the greatest involvement in the incident, although that is not essential)
- ◆ Agree on General Staff personnel assignments and planning, logistics, and finance agreements and procedures
- ◆ Agree on the resource ordering process to be followed and cost-sharing procedures
- ◆ Agree on informational matters, designating one official to act as the Unified Command spokesperson

The members of the Unified Command organization must be authorized to decide and act on behalf of the jurisdiction or agency they represent. Such decisions/actions may include ordering of additional resources in support of the Incident Action Plan, possible loaning or sharing of resources to other jurisdictions, and agreeing to financial cost-sharing arrangements with participating agencies.

C.3 *ACTIVATION AND DISPATCH*

The Santa Cruz County Administrative Officer / Director of Emergency Services, or designated delegate, has the authority to activate this WSRP. Dispatch of flood fight teams shall be in accordance with priorities established by the SCCEOC.

C.4 *PERSONNEL*

Designated SCCDPW personnel are trained to respond to flood events. Additional flood emergency response staffing comes from other Santa Cruz County departments, agencies, and/or volunteers.

When additional personnel are needed for sand bagging, emergency debris clearance, diking, and similar activities to save life and protect the public, assistance may come from trained crews to augment local personnel. In accordance with SEMS, when local resources are depleted or reasonably committed, mutual aid is requested and coordinated through the SCCEOC. If OA resources are insufficient or untimely, the request is then forwarded to the REOC. The REOC evaluates and fills requests by coordinating mutual aid from unaffected OAs, tasking a State agency, or accessing federal assistance. Due to the nature of the need and the resource, requests for hand crews are usually tasked to a State agency.

C.4.1 Resource Agencies

The California Conservation Corps (CCC) has trained civilian crews. The California Department of Forestry and Fire Protection (CAL FIRE) supervises crews from the California Department of Corrections and California Youth Authority. The California National Guard (CNG) also has personnel available. Both CCC and CAL FIRE have contract services for various types of projects. CNG is only available through State tasking. In addition to crews, CNG and CAL FIRE have mobile kitchens and similar support resources available. CAL FIRE can also provide trained section leaders for ICS and SEMS organizations.

C.4.2 Mission Tasking

Cal OES controls missions and mission assignments for State resources and coordinates requests for federal resources. If Cal OES receives a request for crews that meets the criteria for State agency tasking and if an agency has the capability, Cal OES will issue a mission number authorizing the agency to respond. Once tasked, that agency will work directly with the requesting agency and provide the resource within the definition and limits of the mission authorization.

C.4.3 Tasking Criteria

For all missions (1) there must be an actual or imminent danger to life or public safety, and (2) locally available resources, including private sector contracting, must be inadequate or untimely.

Maintenance or recovery activities should be dealt with by contract and will not be authorized by Cal OES. Ex post facto mission numbers will not be authorized unless it can be clearly demonstrated that properly coordinating the request would have caused an inordinate delay and that such delay would have resulted in severe injury or loss of life.

C.4.4 Costs/Reimbursement

State agencies tasked under a Cal OES mission number respond at no cost to the local agency or jurisdiction, except for any required support costs such as food, fuel, supplies, restroom/shower/sleep accommodations, etc. These support facilities, services, and supplies are usually paid for or provided *by the requesting agency* unless otherwise agreed to at the time of the request.

C.4.5 Request Procedures

Following coordination within the Santa Cruz County OA, the SCCEOC will forward unfilled requests to the Coastal REOC Operations Section. The REOC will follow up with the SCCEOC to resolve any questions and to monitor resource delivery.

- ◆ Requests should be completed using the Response Information Management System (RIMS) on a RIMS Mission Request/Tasking form. If RIMS is unavailable, a hard copy of the form should be faxed to the Coastal REOC via the State Warning

Center. If faxing is infeasible, phone in the request using the RIMS format. All requests made by RIMS or fax must be confirmed by phone.

- ◆ Requests must contain a clear description of the mission to be performed and the number of personnel needed.
- ◆ Requests must not specify the agency from which the crew is being requested (i.e., three California Conservation Corps crews). This allows Cal OES to make mission tasking based upon availability and need and avoids over-tasking of a single agency. If there are operational reasons to specify an agency, please explain them in the mission statement of the request form.
- ◆ The SCCEOC must take special care not to duplicate requests with any request possibly made via another mutual aid system. Accordingly, EOC Branches must coordinate their requests closely. *In particular, crews for flood fight should not be requested via fire mutual aid channels (see Appendix C.4.6).*

C.4.6 Fire Mutual Aid

Unlike procedures for other types of emergencies, crews supervised by CAL FIRE for flood fight operations are *not* accessible under the Fire and Rescue Mutual Aid Plan. All requests for crews for flood fight operations must follow emergency services channels, regardless of the requesting agency. In view of the natural tendency for requests made by fire agencies to remain in fire channels, it is critical that the SCCEOC Fire and Rescue Branch Director and Public Works Branch Director communicate closely to avoid confusion and delays.

C.4.7 State Agency Voluntary Response

During non-emergency conditions or non-proclaimed emergencies, State agencies may respond to requests as a locally available resource. Such responses do not receive mission numbers and may not be covered under mutual aid and provisions of the Emergency Services Act. Further, all costs are born by the State agency and/or the requesting agency pursuant to any agreement or understanding between them. Resources committed under such responses may be redirected to higher priority missions during emergencies.

C.5 HAZARDOUS MATERIALS LOCATIONS

The Environmental Health Division of the Santa Cruz County Health Services Agency, acting as the designated local Certified Unified Program Agency (CUPA) for Santa Cruz County, is responsible for administering the following programs related to the use and storage of hazardous materials:

- ◆ Hazardous Materials Business Plan Requirements

- ◆ Hazardous Waste Generator Requirements
- ◆ Underground Storage of Hazardous Substances
- ◆ Above-Ground Petroleum Storage
- ◆ California Accidental Release Prevention Program
- ◆ Uniform Fire Code Hazardous Materials Management Plan

The Santa Cruz County Environmental Health Division maintains an inventory of locations that generate, store, or use reportable quantities of hazardous materials. The SCCEOC maintains Environmental Health Division emergency contact information to obtain hazardous materials information during flood operations.

C.6 FLOOD FIGHT EQUIPMENT AND MATERIALS

The following table lists flood fight equipment available at the SCCDPW Maintenance Yard in Watsonville.

Table 12—Flood Fight Equipment

No.	Description
10	Vest, yellow or orange reflective
5	Safety light, personal
10	Personal Flotation Device (PFD)
10	Safety Glasses, clear
5	Raincoats, assorted sizes
5	Rain Pants, assorted sizes
10	Rain boots, assorted sizes
25	Work gloves, assorted sizes, pair
15	Flashlight, watertight
3	GPS unit, handheld
5	Floodlight, 500-watt, portable
1	Generator, 3,000-watt or larger
5	Radio, portable
10,000	Sand bags (18" x 30" x 10oz.)
15	Rolls, visquine plastic (100' x 20' x 10 mil)
5	Rolls, yellow safety flagging tape
80	Stakes, wood (1" x 3" x 24")
4	Boxes, twine (200 lb. test)
250	Buttons, tie-down
15	Shovels, LHFP
15	Shovels, LHRP
4	Sledge Hammer (10 lb.)
3	Pulaski
10	Loppers
10	First Aid Kit

Source: Santa Cruz County Department of Public Works

C.7 PUBLIC FLOOD FIGHT SUPPLIES

Sand and sandbags are available to the public at the SCCDPW Maintenance Yard at 198 Grimmer Road, Watsonville, (831) 400-8081.

C.8 LOGISTICS PROCEDURES

The SCCEOC Planning Section tracks the rate of consumables used. When the approximate date of complete consumption approaches the date of reasonable delivery, the Logistics Section Chief shall be informed, and the Logistics Section shall initiate procurement in consultation and coordination with the Finance/Administration Section. The Logistics Section Chief will notify the Operations Section Chief.

If the Operations Section Chief is concerned about possible loss of essential consumables, the Operations Section Chief may request procurement from the Logistics Section Chief. In no case will any member of the Operations Section initiate procurement. In no case will the Logistics Section begin procurement without advising the Finance/Administration Section.

C.9 TRAINING IN FLOOD FIGHT PROCEDURES AND TECHNIQUES

Designated Santa Cruz County emergency response personnel participate in DWR flood fight training, which DWR provides upon request. Emergency response personnel can also access the DWR Flood Fight Manual online at:

http://www.water.ca.gov/floodmgmt/docs/flood_fight_methods.pdf.

C.10 UTILITIES

In general, coordination with utilities will be the responsibility of the SCCEOC. When on-scene coordination is needed, a Utilities Unit representative becomes part of the IC's technical staff. In principal, the Utilities Unit gives advice to the IC; in practice the Utilities Unit representative often works directly with the Operations Section Chief.

APPENDIX D—EVACUATION

D.1 EVACUATION CONSIDERATIONS

In considering whether to initiate an evacuation for a flood event, emergency response and/or SCCEOC personnel should consider the following.

- ◆ Where do evacuees go if local shelters will or might be flooded or are otherwise inadequate?
- ◆ What Evacuation Centers will the County and ARC use to house the evacuees?
- ◆ Which directions will evacuees go, and which routes will be above water—even sheet flooding?
- ◆ How will evacuees obtain food, water, and medical care?
- ◆ Do critical care facilities within the County, including hospitals, jails, and the EOC, meet Essential Services Building criteria, and can they remain in operation?
- ◆ Evacuation planning should evaluate an array of scenarios at various locations, including depth of flooding versus time throughout the flood area, and plan the evacuation routes accordingly.

D.2 PUBLIC NOTIFICATION

The decision to evacuate rests with the IC or the SCCEOC; the instructions to be given to the public are the responsibility of the PIO, the Joint Information Center, and the SCCEOC.

Public awareness is extremely important during an emergency. In fact, it is the key to a successful evacuation. In the case of a potential flood, the public must be kept informed of water levels and their implications for a flood event, levee conditions, short- and long-term weather forecasts, and any other threat that might exist. Santa Cruz County is committed to notifying the public about conditions that cause a flood threat and starting evacuations due to the threat without waiting until an actual disaster has commenced.

A well-informed public will respond better to an emergency situation. Santa Cruz County uses multiple platforms/systems to disseminate emergency information to the public, including:

- ◆ CodeRED
- ◆ Nixle
- ◆ Facebook, Twitter, and Instagram
- ◆ Wireless Emergency Alerts (WEA)

- ◆ Emergency Alert System (EAS)
- ◆ Emergency Digital Information System (EDIS)
- ◆ Emergency Vehicle Loudspeakers
- ◆ Local Media

D.2.1 CodeRED

CodeRED is a system that delivers voice recorded, text, and TTY messages in English and Spanish languages to a database of landline telephones and mobile devices in a specific geographic area affected by a disaster or emergency as selected by the local government agency, with the following limitations: The telephone database utilizes the existing 9-1-1 residential and yellow pages landline databases. Cellular telephone and email notifications use a database created by individuals registering these devices on the County’s website at <https://public.coderedweb.com/CNE/en-US/218A80E36F49>

CodeRED messaging can be initiated by the SCCEOC Manager, Deputy SCCEOC Coordinators, or designated Santa Cruz County public safety officers.

D.2.2 Nixle

Nixle is a Community Information Service dedicated to helping people stay connected to the information that matters most to them depending on their physical location. People can stay connected to their local police department, their children’s schools, their local community agencies and organizations, and the important information from other locations throughout the country that are relevant to them. Information is immediately available over your cell phone by text message, by email, and over the web. Each user’s account can be customized so they receive only the information that matters most to them, whether it is where they live, work, or have friends or family throughout the country. Only authenticated agencies and community organizations can securely publish information on Nixle. There are four types of messages; *alerts* (many would refer to this as an emergency type alert), *advisories* (less urgent need-to-know information), *community information* (day-to-day neighborhood to community-level information), and *traffic* (very localized traffic information).

D.2.3 Social Media

The OES utilizes the following social media platforms to disseminate and receive emergency incident information:

- ◆ Instagram
- ◆ Facebook
- ◆ Twitter

D.2.4 Wireless Emergency Alerts (WEA)

WEAs are made available through the Integrated Public Alert and Warning System (IPAWS) infrastructure as just one of the ways public safety officials can quickly and effectively alert and warn the public about serious emergencies.

Integrated Public Alert and Warning System (IPAWS)

IPAWS is a modernization and integration of the Nation’s existing and future alert and warning systems, technologies, and infrastructure. IPAWS is the latest version of a long list of warning systems the U.S. Government has had in place since the 1950s. IPAWS is administered by FEMA and incorporates various forms of alerting and warning systems into one. It is intended to incorporate new technologies as they become available in the future.

D.2.5 Emergency Alert System (EAS)

The EAS is a network of public and private broadcast stations and interconnecting facilities. The system is authorized by the FCC to operate in a controlled manner during a war, state of public peril or disaster, or other national emergency. Table 13 lists the interconnected broadcast facilities in Santa Cruz, San Benito, and Monterey Counties for information dissemination under the EAS format. Access to EAS is coordinated through the OES.

Table 13—FCC Santa Cruz County EAS Plan

Monitoring Station			Stations Monitored		
Station ID	Frequency	Location	Station ID	Frequency	Location
KTOM-FM	100.7 MHz	Salinas	KCBS	740 kHz	San Francisco
			NWR	162.550 MHz	Santa Cruz Mountains
			CLERS	453.875 MHz	Fremont Peak
			KPIG-FM	107.5 MHz	Watsonville
KPIG-FM	107.5 MHz	Santa Cruz	KTOM-FM	100.7 MHz	Salinas
			NWR	162.550 MHz	Santa Cruz Mountains
			CLERS	453.875 MHz	Fremont Peak
All other stations and CATV control points must monitor TWO of the following			KTOM-FM	100.7 MHz	Salinas
			KTOM-FM	100.9 MHz	Salinas
			KPIG-FM	107.5 MHz	Watsonville
Recommended additional, but not replacement monitoring			NWR	162.550 MHz	Santa Cruz Mountains
			CLERS	453.875 MHz	Fremont Peak

Reference: Santa Cruz Bay Area FCC Local Area EAS Plan (December 2002)

D.2.6 Vehicle Loudspeaker Systems

All Fire and Police vehicles have loudspeaker systems. The loudspeakers are very useful for neighborhood actions, directing traffic, and warning people not to enter areas. Loudspeakers are especially useful for persons without a radio, television, or phone, or during late night hours when most of the public is likely in bed and away from media (for EAS alerts) or their phones (for CodeRED notifications).

In the case of emergencies, these vehicles can drive through a neighborhood and make announcements; they can also make an all-clear announcement once the emergency is over. To ensure consistent information and best use of resources, the IC must coordinate messages and activities with the SCCEOC. All vehicles must be transmitting the same message via the loudspeakers to avoid confusion. Messages must be direct and simple. Those needing detailed information may call 2-1-1 for more information or check the EAS TV or radio sources.

D.3 OPERATIONS

The decision to evacuate rests with the IC or the SCCEOC. Operational responsibility for evacuations rests with local law enforcement with assistance from other emergency response agencies/personnel as requested. If it appears that an evacuation may be necessary due to conditions in the field, the IC will provide that recommendation to the SCCEOC. If the need to evacuate is extremely urgent, the Flood Fight IC or Operations Chief may directly initiate an evacuation with their law enforcement counterpart in the field and advise the SCCEOC. The SCCEOC will advise nearby communities and reception centers.

Buses and drivers for mass evacuation can be obtained through Santa Cruz Metro and/or the various city/county school districts. Helicopters are available through the California Highway Patrol or mutual aid through the SCCEOC. The responsible law enforcement agency is also responsible for post-evacuation security and patrols.

D.4 MAPS

Figure 7 and Figure 8 show the locations of critical infrastructure and facilities within Santa Cruz County. Critical infrastructure and facilities include wastewater pump stations, wastewater treatment facilities, bridges, major culverts, rain and stream gages, levee flood gates, Public Works Department maintenance facilities, water treatment facilities, flood drainage facilities, healthcare facilities, schools, essential government services facilities, and public safety facilities.

Addresses and geocoordinates of these facilities are maintained in a Santa Cruz County database and available to designated SCCEOC staff during emergency operations. The OA maintains a list of other special needs populations, including areas where demographics indicate a need for contact in a language other than English.

Volume 2 of this plan is an atlas of maps showing the boundaries of the various FEMA flood hazard zones by category within Santa Cruz County and building locations within and adjacent to those flood hazard areas. These maps are intended for use in evacuation planning by SCCEOC staff and/or emergency response personnel for flood events.

In addition, a Santa Cruz County Geographic Information System Department Technician is assigned to the SCCEOC during Level 2/3 activations to provide GIS mapping support, including dynamic mapping displays of relevant data as needed during EOC operations.

Figure 7—Santa Cruz County-Owned Critical Infrastructure

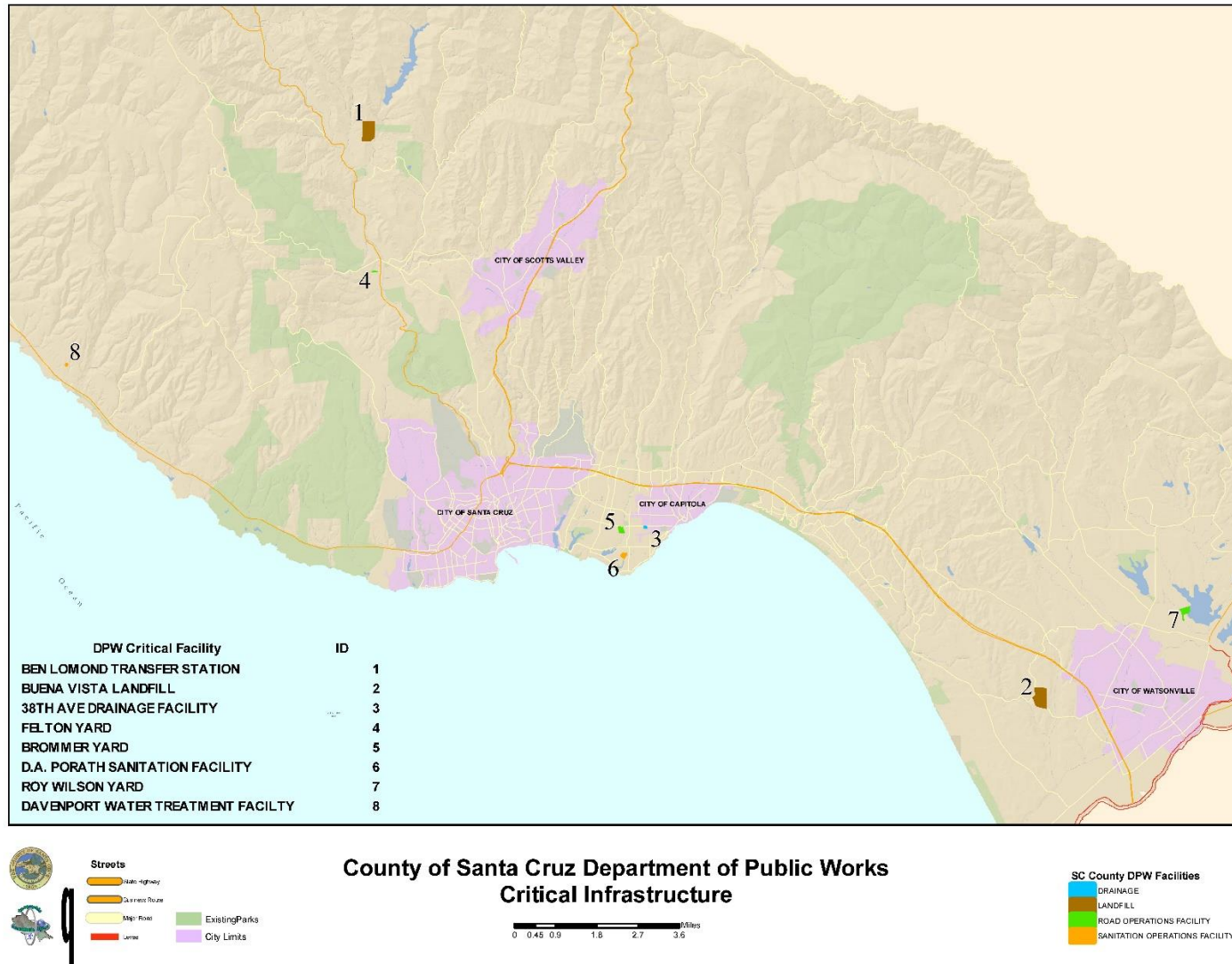


Figure 8—Non-County-Owned Critical Facilities



APPENDIX E—FLOOD WATER REMOVAL

With overtopping or failure of a levee flood protection system, the lands protected by the levee system may become partially or fully inundated. Depending on the situation, there may be an immediate need to dewater that area to prevent further flooding or to protect the overall integrity of the flood protection system, or to remove the water to recover the area to pre-flood conditions. Flood water removal is an integral part of flood emergency response and needs to be considered in flood planning.

E.1 PRIORITIES

A dewatering plan is dependent upon the characteristics of the flooded area and Santa Cruz County's evaluation of risk and available resources. Considerations include:

- ◆ Number of people that are affected by the flooding
- ◆ Use(s) and value of the flooded area
- ◆ Longer-term consequences and ramifications of the flooding
- ◆ Weather and river conditions that may hamper or possibly prevent the safe immediate dewatering of flooded areas

E.1.1 Alternative 1 – No Immediate Dewatering Needed

Based on the situation, it may be advisable to take no immediate action. For example, an inundated agricultural area with no threat to life and property may be left flooded until waters naturally recede. Due to public perception and expectations, this may be a difficult decision to reach, albeit logical. For some areas, this choice can be made in advance of a flood event. Local governments, DWR, USACE, and Cal OES must work together to ensure everyone understands the reasoning and supports the choice.

E.1.2 Alternative 2 – Close Breach; No Water Removal

Closing the opening in a failed levee is generally the first step of any levee breach repair. It may be necessary to wait for the inflow to slow before initiating this action. Rock and suitable materials must be available to armor the ends of the break before closing the opening with additional suitable material. After the breach is closed, it may be cost-effective to simply let the ground dry out on its own depending on the extent of flooding. Equipment and contractors must be mobilized, the ends of the breach must be able to be accessed, and material for the closure must be available.

E.1.3 Alternative 3 – Repair Breach and Remove Water by Pumping

After the breach is closed, this alternative would remove water using available on-site or portable pumps. For large flooded areas, the time and expense for this can be extensive.

E.1.4 Alternative 4 – Repair Breach and Remove Water by Making a Relief Cut

The situation may warrant excavating a second breach in a levee system to allow flood waters to drain from behind the land side of a levee. This effort may also limit the depth of those flood waters behind the levee and prevent further flooding of areas within the basin and may be employed under emergency conditions.

E.1.5 Environmental Considerations

Flood Water Removal projects are generally exempt from CEQA. Statutory exemptions include “emergency projects such as actions required to restore damaged facilities or mitigate an emergency” (*CEQA Guidelines Section 15269*) http://ceres.ca.gov/topic/env_law/ceqa/guidelines/art18.html). Nevertheless, Santa Cruz County will consult legal counsel before making a final decision.

E.2 CONTRACTORS AND VENDORS

The SCCEOC maintains an Emergency Resource Directory (ERD) listing available private-sector suppliers of pumps, excavation equipment and materials, and other flood fight equipment and supplies.

In addition, the San Mateo-Santa Cruz CAL FIRE Unit also maintains an extensive ERD listing available emergency incident support equipment.