#### **American River Flood Control District**

#### Flood Safety Plan

#### Staff Report

#### **Discussion:**

The District received State grant funding to develop an Emergency Action Plan in 2015. This plan is required for government agencies per the Water Code. The District collaborated with the City and County of Sacramento as well as RD 1000 to work with various consultants that developed each agency's plan.

Recently, SAFCA undertook the effort to add the Dry Creek levee system to the State-Federal flood control project. This required that an Operations and Maintenance manual be developed for the system as well as including documentation that the system is compliant with the State's Urban Levee Design Criteria. SAFCA enlisted MBK Engineers to generate this necessary documentation as well as create a Flood Safety Plan for the levee system.

Upon working with MBK Engineers on the FSP, I informed them that the District recently developed the Emergency Action Plan. MBK Engineers was able to update the EAP and add more specificity in relation to District flood operations to create the new FSP. The FSP was also crafted generally enough to make it applicable to the entire District levee system, not just Dry Creek.

This plan meets the Safety Plan requirements of Section 9650 of the California Water Code and the State of California Urban Levee Design Requirements 7.20. This plan is compliant with the California Standardized Emergency Management System (SEMS), the National Incident Management System (NIMS), and the National Response Framework.

#### **Recommendation:**

The General Manager recommends that the Board of Trustees approve the Flood Safety Plan.



# **American River Flood Control District**

# **Flood Safety Plan**

As required by California Water Code Section 9650

# January 2018

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# **Plan Promulgation**

To Whom It May Concern:

This Flood Safety Plan (FSP), including the accompanying appendices, having been duly reviewed and approved by the American River Flood Control District (ARFCD or District) Board of Trustees, is hereby promulgated as the official Safety Plan for the District. District staff are hereby directed to use this plan as the basis for emergency response to flood events on District levees. This plan meets the Safety Plan requirements of Section 9650 of the California Water Code and the State of California Urban Levee Design Requirements 7.20. This plan is compliant with the California Standardized Emergency Management System (SEMS), the National Incident Management System (NIMS), and the National Response Framework.

The General Manager shall distribute this plan to outside agencies to ensure proper inter-agency coordination during emergency operations.

The General Manager shall review this plan annually for needed changes and updates, and is authorized to make routine updates and changes to the plan required by changes in District operations and personnel and changes to outside agency plans that affect District operations.

The District Board of Trustees shall review this plan once every four years and after any major flood event where the plan was used to guide District response. The General Manager shall maintain a record of Board plan review and approval actions in accordance with District documentation procedures and policies.

Date \_\_\_\_\_

Resolution \_\_\_\_\_

Signed \_\_\_\_

President Board of Trustees American River Flood Control District

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# **Record of Changes and Reviews**

Each update or change to the Flood Safety Plan (formerly referred to as the Emergency Action Plan) should be tracked. When changes to the plan are made, document the change number, the date of the change, and the name of the person who made the change. See Section 7.1 for more information on the process for reviewing and revising the plan.

Revision No. or Review Date	Name of Person Performing Review	Sections Revised	Date of Distribution	Name of Approving Authority

Agency Name	Address	Date Provided
City of Sacramento Department of Utilities	1395 35th Avenue Sacramento, CA 95822	
County of Sacramento Department of Water Resources	827 7th Street, Suite 301 Sacramento, CA 95814	
County of Sacramento Office of Emergency Services	3720 Dudley Boulevard, Suite 122 McClellan, CA 95652	
City of Sacramento Office of Emergency Services	5770 Freeport Boulevard, Suite 100 Sacramento, CA 95822	
State of California Department of Water Resources	1416 9th Street Sacramento, CA 95814	
Sacramento Area Flood Control Agency	1007 7th Street Sacramento, CA 95814	
State of California Central Valley Flood Protection Board	3310 El Camino Avenue Sacramento, CA 95821	

# **Record of Initial Distribution**

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AAR	After-Action Report
ARFCD	American River Flood Control District
CCC	California Conservation Corps
Cal EMA	California Emergency Management Agency
Cal Fire	California Department of Forestry and Fire Protection
CDAA	California Disaster Assistance Act
CDEC	California Data Exchange Center
CERT	Community Emergency Response Team
CNG	California National Guard
CNRFC	California-Nevada River Forecast Center
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
FSP	Flood Safety Plan
GPS	Global Positioning System
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
JIC	Joint Information Center
LMA	Local Maintaining Agency
MAC	Multi-agency Coordination
NWS	National Weather Service
OA	Operational Area (County)
OES	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.
RD	Reclamation District
REOC	Cal EMA's Regional Emergency Operations Center
RIMS	Response Information Management System
SAFCA	Sacramento Area Flood Control Agency
SEMS	Standardized Emergency Management System
SOC	Cal EMA's State Operations Center
USACE	U. S.Army Corps of Engineers
USBR	U. S.Bureau of Reclamation

# **1** Plan Introduction

#### 1.1 Purpose

This Flood Safety Plan (FSP) outlines the American River Flood Control District's (ARFCD or District) planned response to flood emergencies in or affecting Sacramento County and meets the requirements of Section 9650 of the California Water Code.

The purpose of the FSP is to ensure the effective performance of the District responsibilities in a flood emergency in collaboration with other jurisdictions performing emergency functions within and around the District. This FSP provides information, policies, and procedures that will guide and assist the District in efficiently dealing with flood emergencies.

This FSP allows implementation of the California Standardized Emergency Management System (SEMS) and is intended to be used in conjunction with the *California Emergency Plan*, and other local emergency plans, to facilitate multi-agency and multi-jurisdictional coordination in flood emergency operations within ARFCD boundaries.

Although this is a public document, appendices to this FSP contain specific procedures to be followed in flood response. The appendices contain sensitive material, such as personal contact information. Therefore, they are not public documents in their complete form – they are subject to restricted-use handling procedures.

### 1.2 Scope

The ARFCD is an independent jurisdiction with responsibility for the operation and maintenance of the levee system within its jurisdictional boundaries and other levees for which the District may have maintenance responsibilities as determined by agreements with other entities. While the District will work with, and assist if possible, the local jurisdiction(s) responsible for other public safety functions within the District, this FSP only contains detailed procedures for ARFCD emergency responsibilities. This FSP will describe the interaction with other jurisdiction(s), but the operation plans of other jurisdictions with public safety responsibilities within the area protected by ARFCD levees are only referend in this document.

This FSP will cover the following:

- District flood preparedness procedures
- District levee patrol procedures
- District flood fight procedures
- District recovery and after-action procedures

# 1.3 Plans That Govern or Influence Flood Emergency Response within ARFCD's Boundaries

Emergency response plans that govern or influence flood emergency response with the ARFCD's boundaries are:

- State of California Emergency Plan (2009)
- State of California Governor's Office of Emergency Services, guidelines for Coordinating Flood Emergency Operations (1997)
- Sacramento County Emergency Operations Plan (2017)
- City of Sacramento Emergency Operations Plan (2005)
- City of Sacramento Comprehensive Flood Management Plan (2017)
- City of Sacramento, Office of Emergency Services, Evaluation Plan for Floods and Other Emergencies (2008)
- City of Sacramento Emergency Action Plan (2016)

# 2 Concept of Operations

### 2.1 Situation Overview

The ARFCD is in the Sacramento Valley. Areas adjacent to rivers, sloughs, creeks, and drainage canals and other low-lying areas are subject to flooding. State and local protective facilities, such as dams, bypasses, and levees, afford a level of flood protection; however, the flood events of 1986, 1995, 1997, and 1998 demonstrated that there is still a significant flood threat in the valley.

Sacramento County is vulnerable to many flooding sources caused by river floods, levee failures and/or overtopping, drainage pump failure, flood gate and/or closure structure failure, dam failure, flash and localized stormwater flooding. These may produce large losses to public infrastructure and private property. Deep flooding caused by levee failure or overtopping remains a significant threat to valley locations.

The local land use agencies and levee maintainers have the responsibility for operations and maintenance along with emergency preparedness during a flood event. For the Sacramento area, the Sacramento Area Flood Control Agency (SAFCA) works with State and Federal authorities for flood management. Within SAFCA's area of operation, the City of Sacramento, the ARFCD, Reclamation District (RD) 1000, and the State Department of Water Resources Maintenance Area 9 are responsible for levee maintenance and operations of the major levees that protect the urban area of Sacramento within the Sacramento and Sutter Counties. In addition to these entities, the U.S. Army Corps of Engineers (USACE) has authority under their Sacramento Bank protection program to assist the State with addressing long term bank protection projects along the Sacramento River and its tributaries.

The ARFCD is an independent special district in the central portion of Sacramento. The boundaries of the District generally follow the floodplain of the American River as identified at the time of District formation in 1927. The flood plain area provided protection by the District, shown in **Appendix D: Maps**, encompasses approximately 40 miles of levees along the American River and portions of Steelhead, Arcade, Dry and Magpie Creeks. The jurisdiction covers areas of North Sacramento and Sacramento south to Sutterville Road and 14th Avenue and areas of the County of Sacramento south of American River to Folsom Boulevard and Mayhew Road. The territory within the District boundary is characterized by flat and gently rolling land in the central portion of the city of Sacramento. The District provides flood protection to a specific geographic area.

The ARFCD is responsible for the following levee segments, drainage facilities, and flood control structures.

Facility Name	River/Stream	Location
Dry Creek North Levee	Dry Creek	Station 7000+00 to 7085+58
Robla Creek South Levee or Linda Creek levee or Dry Creek left Bank (south) levee	Robla Creek	Station 6000+00 to 6118+20
Natomas East Main Drainage Canal (NEMDC) East Levee	Robla Creek and Arcade Creek	Station 3055+86 to 3192+23
Arcade Creek north levee	Arcade Creek	Station 5000+00 to 5112+43
American River South Levee	American River	Station 1000+00 to 1552+45
Mayhew Drain Closure Structure	American River	Station 1552+45
Sacramento River east levee	Sacramento River	Station 1000+00 to 1020+85

#### 2.2 General Approach to Seasonal Flood Operations

District personnel will carry out routine preparedness activities at the beginning of flood season as described in this section.

Flood response levels for the ARFCD will be based on river stage for both the American and Sacramento Rivers. On the American River, stages should be predictable for up to eight hours. On the Sacramento River system, depending on which dams are releasing the flows, advance warning of river stages may be as much as 24 hours. This section defines the specific level of commitment by the ARFCD for specific triggers.

Not all flooding in the jurisdiction may be based on river stage, refer to the City of Sacramento *Emergency Action Plan* (EAP) related to floods.

#### 2.2.1 Routine Preparedness and Infrastructure Maintenance

District personnel perform the following routine flood preparedness actions:

- All levees are inspected weekly to determine the needed maintenance as well as to deter any unauthorized encroachments.
- All levees mowed multiple times during growing season. Often, due to late rains, the growth is vigorous and thick needing more attention than "average" years.
- Rodent control begins in spring with smoke bombing and progresses to baiting once the first mowing is complete and the wild food supply is reduced. Grouting is scheduled in early fall.
- Pre-emergent Herbicides are applied during the winter months to all roadways to ensure an all-weather road surface.
- Storm and weather related tree fall is removed.
- Minor erosion areas are identified and repaired as needed.
- All gates are checked and repaired and painted as needed.

- Post emergent herbicide is applied as needed to keep roadways clear and on slopes as needed to deter noxious weed populations from establishing.
- Roadways are resurfaced with fresh gravel prior to the start of flood season.
- Tree and brush trimming is completed during the winter months.
- Flood Emergency supplies and materials are checked and resupplied as needed. Supplies include, 9,000 empty sandbags, 2,000 filled sandbags, 4,500 feet of visquine, 7,000 tons of rip rap, as well as other material for flood patrol and fighting.
- All equipment is serviced and prepared for flood season.
- Annual flood fight training is conducted with the DWR and County of Sacramento CMID members.
- County CMID inspectors are on call to assist ARFCD in a flood emergency.
- Communications, including radios, satellite phones and cell phones are checked for proper operation.
- Contact lists are checked and updated.
- General Service agreements for emergency levee repair are updated with Teichert, Granite, and Nordic Construction.

#### 2.2.2 Monitoring and Analysis

The District will monitor and analyze throughout the flood season the water conditions, elevations, and forecasts of rivers and creeks affecting the District's levees for promptly identifying heightened threats to the integrity of the levees and drainage systems. The objective ot this monitoring is to identify conditions that warrant additional actions beyond routine flood season preparedness activities. The District's flood stage monitoring consists of observing the readings from specific real-time, telemetered stream gages that report the conditions on water courses that affect potential flooding in the jurisdiction. For each gage location on a stream or water course, stages or flows have been categorized into three levels: monitoring stage, danger stage, and flood stage.

The real-time gages can be accessed through the internet through the California Data Exchange Center (CDEC) within the California Department of Water Resources website (<u>www.water.ca.gov</u>). CDEC includes links to the National Weather Service and links to satellite photos. CDEC provides information on all of California's rivers and reservoirs. This allows direct monitoring of outflows at key dams affecting the District.

The Sacramento County also uses the Automated Local Evaluation in Real Time (ALERT) system for local creeks. ALERT was created by the National Weather Service to signal the City of Sacramento about possible flooding. ALERT provides continuous and automatic reports from river levels and rainfall gauges to help detect impending high water levels. The ALERT system website is maintained by Sacramento County and is located <u>https://www.sacflood.org</u>.

#### **ARFCD Levee Patrol Plan**

	Flows/Stage	Patrol Frequency by Reach	24-hr?	No. of Patrols (total staff)
American River	>10,000 to 35,000 cfs	4 hours entire system (Daylight hours)	Ν	
	>35,000 to 50,000 cfs	2 hours Sac River to Watt 4 hours upstream Watt	Y	
	>50,000 to 90,000 cfs	1 hour Cap City to H Street (L) 2 hour rest of system	Y	
	>90,000 to 115,000 cfs	1 hour downstream of Watt 2 hour upstream of Watt	Y	
	>115,000 to 145,000 cfs	1/2 hours Cap City of H Street (L) 1 hour rest of system	Y	
-				
Sacramento River	25.0 feet at I Street	4 hours downstream Cap City	Ν	
	27.0 feet at I Street	2 hours downstream Cap City	Y	
	30.0 feet at I Street	1 hour downstream of H Street	Y	
Dry Creek	116.0 at Vernon Street	4 hours	N	
Diyeleek	38.0 at W. Branch/Elkhorn	4 hours	N	
	42.0 Main Branch/Elkhorn	4 hours	Ν	
	120.0 at Vernon Street	2 hours	Y	
	43.0 at W. Branch/Elkhorn	2 hours	Y	
	47.0 Main Branch/Elkhorn	2 hours	Y	
	124.0 at Vernon Street	1 hour	Y	
	43.0 at W. Branch/Elkhorn	1 hour	Y	
	47.0 Main Branch/Elkhorn	1 hour	Y	
Arcade Creek	58.0 Watt S/O Longview	4 hours	N	

	ARFCD	Levee Patrol Plan (Cont.)		
	Flows/Stage	Patrol Frequency by Reach	24-hr?	No. of Patrols (total staff)
	35.0 1659 Arcade	4 hours	N	
	25.0 Arcade @ NEMDC	4 hours	N	
	60.0 Watt S/O Longview	2 hours	Y	
	37.0 1659 Arcade	2 hours	Y	
	28.0 Arcade @ NEMDC	2 hours	Y	
	62.0 Watt S/O Longview	1 hours	Y	
	40.0 1659 Arcade	1 hours	Y	
	30.0 Arcade @ NEMDC	1 hours	Y	
Magpie Diversion	73.0 Watt S/O Roseville Rd	4 hours	N	
	Raley Blvd – Shoulder inundated	4 hours	N	
	75.0 Watt S/O Roseville Rd	2 hours	Y	
	Raley Blvd – Impassable	2 hours	Y	
	78.0 Watt S/O Roseville Rd	1 hour	Y	
	Raley Blvd – Outflanks	1 hour	Y	

#### 2.2.2.1 Flood Season Monitoring (Normal Conditions)

During flood season and under normal conditions, the District conducts the following monitoring:

- Monitor reservoir levels weekly or more frequently as necessary
- Contact the FOC and the USACE to report encroachments
- Monitor weather reports on a daily basis
- Monitor river levels on a regular basis (or two or three times per week)

#### 2.2.2.2 Flood Season Monitoring (Adverse Weather Conditions)

During flood season and under adverse weather conditions, the District conducts the following monitoring:

- Monitor weather reports/radar several times per day
- Monitor river/stream levels as necessary to initiate levee patrols at predesignated stages
- Monitor reservoir levels on daily basis (or more often if significantly encroached)
- Monitor reservoir release schedule on daily basis once levee patrols are initiated (and more often during significant flood events)
- Participate in daily conference calls with County Office of Emergency Services

Flood response levels and monitoring patrol frequency for the District are based on river stage. Levee patrol frequency by river stage is described in Section 2.2.2.

#### 2.2.2.3 Levee Monitoring

During flood season and under adverse weather conditions, the District takes the following levee monitoring actions:

• Notify staff when levee patrol operations requiring 24-hour monitoring are anticipated and adjust work schedules to accommodate

- Initiate levee patrols at pre-designated river, stream, or reservoir level
- Follow the ARFCD Levee Patrol Plan (Appendix B: Levee Patrol Plan)
- Notify outside levee patrol staff 72 hours in advance of need for assistance, if possible

• Determine the need for additional levee patrol assistance and potential sources of support

#### 2.2.3 Alerting, Activation and Initial Response

The following actions will be taken when the trigger condition is identified by District staff. These actions may also be taken by District staff at any time it is felt that conditions affecting the levees warrant such action.

After compiling monitoring and surveillance information, the ARFCD decides if it is necessary to begin flood operations or direct flood fight resources to specific areas where flooding is occurring or may occur soon. District staff also monitor the flood stage information or monitoring system and are in constant communication with flood control staff throughout the storm episode.

The following actions are taken depending on the severity of flood conditions. District staff may take these actions at any time it is felt that conditions affecting the levees and drainage system warrant such action.

- Alert the Board of Trustees and District staff
- Appoint an Incident Commander for the District
- Activate staff, notify contractors, and initiate levee-monitoring protocols as defined in Levee Patrol Plan. (Appendix B: Levee Patrol Plan)
- Make notifications to the City and County
- Contact DWR Flood Operations Center (FOC)

The District does not use "phases", where objective conditions trigger a group of actions. Each action indicated will be taken when District staff feels it is warranted, based on river stages and levee integrity. The District Superintendent and District General Manager are responsible for monitoring objective conditions affecting the District.

District staff will take all of the above actions on identification—or verified report—of any outof-the-ordinary condition on a District levee that presents a potential risk of failure.

If conditions exceed their capabilities on any of the levee systems, the District will call the Sacramento County or DWR for technical assistance. If conditions continue to worsen, the District may contact Sacramento County\_for mutual aid resources. The DWR FOC may request support from the USACE under PL 84-99.

As coordinated operations continue, local jurisdictions will brief their administrators. These positions often serve as the Directors for Emergency Operations at the Emergency Operations Center (EOC). Depending on the flooding situation, the EOC will be activated and staff will respond to the EOC to coordinate OA response to the disaster with other agencies.

The DWR FOC may also be made operational. County EOCs remain operational until the threat from flooding is contained and controlled.

# 2.3 Public Alert and Warning

The jurisdictions identified below have the responsibility for providing emergency response to the general public within the ARFCD boundaries. The District will promptly notify these jurisdictions of identified concerns with their levees in accordance with the Sacramento County OA protocols and will provide detailed information on the characteristics of the threat.

- Sacramento County Office of Emergency Services
- Sacramento County Sheriff's Department

The ARFCD will coordinate operations with these jurisdictions/agencies through the Sacramento OA. District staff will assist, to the extent possible, with public safety actions if requested. Response producers for the above public safety agencies will be found in agency emergency plans.

### 2.4 Emergency Response Actions

The District emergency organization is mobilized to cope with specific situations. Each unit, when mobilized, operates according to the provisions of this FSP. Priority is given to operations such as the following:

- Survey and evaluate the emergency situation and advise the Sacramento OA EOC and the FOC
- Mobilize, allocate, and position District personnel and materials for levee monitoring and flood fighting
- Notify flood emergency contractors
- Establish staging areas for personnel, supplies, and equipment
- Produce and disseminate emergency information
- Protect, control, and allocate vital resources
- Submit requests for resources and assistance
- Restore or activate essential facilities and systems

The preceding actions are based on extensive local coordination of plans and response. Also, there are daily briefings facilitated by DWR from the FOC involving all impacted agencies. When local resources are committed to the maximum and additional materials or personnel are required to control or alleviate the emergency, requests for resources are initiated through the Sacramento OA EOC.

# 2.5 Flood Fight Operations

Flood fight operations, including levee patrol and repair, are conducted in accordance with the procedures in this FSP. Operations and response procedures are modified as needed by the District Incident Commander to meet the demands of actual emergency conditions. Both the City and the County have Emergency Evacuation Plans and are responsible for warning and evacuation within the District. An inventory of flood fight supplies may be found in **Appendix C: Flood Fight** Resource Inventory. Flood fight operations, including levee patrol, will be conducted in accordance with the procedures in **Appendixes B and C**.

# 2.6 Evacuation

Certain flood threats to the District, as they grow in severity, may require evacuation of populations of residents and/or visitors. The evacuation planners need to determine the lead-time needed to get the necessary resources deployed to the field and the estimated time to conduct a floodplain evacuation. Determination of the proper lead time is made as part of the initiation coordination calls with the Sacramento OA and DWR. Examples of these flood threats may include:

- Weather reports that include flood watches or warnings and/or storms that may bring large amounts of rain
- Reservoir release forecasts that equal or exceed downstream safe levee capacity
- Active river bank erosion that is threatening levee stability
- Dam failure advisories for dams anywhere along the Sacramento River, American River, or Cosumnes River watersheds
- Levee breach advisories for levees protecting District populations

When these conditions threaten the District, the District notifies threatened jurisdictions (i.e., the City and the County). After the decision to evacuate is reached, the City and the County coordinate with the District to manage the evacuation process so as not to affect emergency response activities. Coordination of evacuation efforts in the County is managed from the Sacramento OA EOC, and the coordination of evacuation efforts in the City is managed from the City of Sacramento Emergency Operations Center (City EOC). Additional information about evacuation is provided in the Sacramento County *Evacuation Plan* and the City of Sacramento *Evacuation Plan*.

### 2.7 Recovery

An effective recovery requires coordinating with several government agencies over an extended period. Recovery activities may include:

- Organizing files from emergency operations
- Gathering pictures, memos, notes, and other written information from those involved in the emergency response
- Creating a list of outside contacts made during response, including resource and regulatory agency contacts
- Organizing the contracts executed, invoices from contractors/material suppliers, and documented labor costs from the emergency response
- Initiating claim procedures with FEMA and the California Governor's Office of Emergency Services (Cal OES)
- Conducting a post-flood survey of the District's flood control system to determine areas needing immediate emergency repairs
- Determining if the District has the financial resources to undertake repairs; if not, seeking assistance from State and USACE (under Public Law 84-99 or other appropriate State or Federal program) to implement immediate repairs
- Conducting a post-flood-season survey to determine which sites were not addressed by the post-flood survey but need to be repaired before the next flood season

Other recovery activities may include:

- Rebuilding levees
- Dewatering protected areas reference City of Sacramento Emergency Action Plan
- Clearing debris
- Demolishing unsafe structures
- Re-entering of District residents
- Performing research to uncover residual hazards, to advance knowledge of disaster phenomena, and to provide information to improve future flood

#### 2.8 Federal and State Emergency and Disaster Assistance

The ARFCD may maintain mitigation and emergency plans and procedures, as well as, the physical condition of its levees, at the level required to be eligible for disaster assistance under the Federal Stafford Act program as well as the California Disaster Assistance Act (CDAA). Emergency operations will be conducted and documented in compliance with conditions of these programs for reimbursement of disaster expense.

State and federal support during the Emergency Phase:

To ensure that the district takes steps to quickly access the recovery process, these actions should be considered if an incident is imminent or occurring:

- The ARFCD in coordination with SAFCA and Sacramento County staff will request the County to proclaim the existing of a local emergency and notify ARFCD staff when the proclamation is established.
- The ARFCD in coordination with Sacramento County may consider requesting Cal EMA and DWR support during the Emergency Phase. California Mutual Aid and USACE assistance are available when resources beyond local capability are needed for flood fight operations.

Emergency Phase support following flooding:

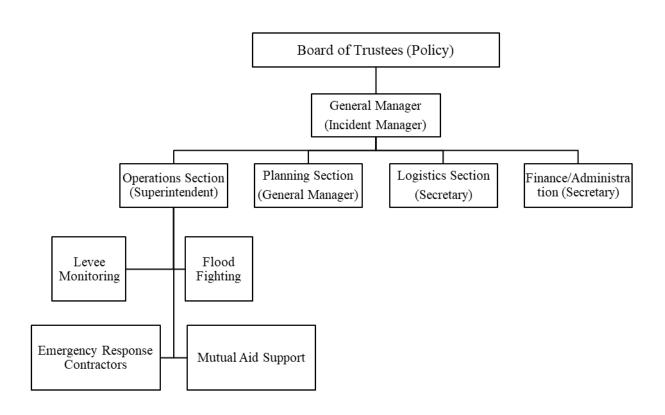
- If the County declares a disaster, the Governor may support it by proclaiming a State of Emergency and then requesting the President make a National Disaster declaration for the affected area.
- If the President declares the area a national disaster, assistance from the Federal Emergency Management Agency (FEMA) will be requested.
- If residential flooding occurs, regardless of the declaration, USACE can provide federal funds for recovery operations for up to 30 days following the incident.

• USACE assistance can also be requested to repair eroded and damaged levees following high flows. Request for this authority must be made in a timely manner (30 days).

# **3** Organization and Assignment of Responsibilities

#### 3.1.1 Levee Flood Control Operations

The District will use its paid and contract staff to perform its responsibilities in a flood emergency. The District can request mutual aid and coordinates with the Sacramento County OA during flooding episodes.



### 3.2 Key Designated Roles

The ARFCD Board of Trustees (Board) has made the following assignments of authority and responsibility to ensure that needed emergency actions can be taken promptly and efficiently. Annually, the Board designates responsibility to the General Manager for Emergency Operations.

#### 3.2.1 Legal and Financial Authority

Once the Board has concurred that a local emergency is occurring, any one trustee and the District General Manager are authorized to (1) make a legal or financial commitment on behalf

of the District during emergency operations and (2) purchase additional flood fight supplies or materials. Even without prior Board concurrence that a local emergency is occurring, the General Manager can take these actions on recognition of a threat to levee integrity, but in this case the Board must be notified of the action within 24-hours.

The District General Manager is authorized to sign written contracts with private vendors or other public agencies stemming from emergency actions, as described above.

#### 3.2.2 Multi-Agency Coordination Group Representation

The District Superintendent is authorized and responsible for representing the District in the unified field-level incident command that may be established by the Sacramento OA. The District Superintendent is also responsible for representing the District at the Sacramento OA management group. The District Superintendent may speak for the District in matters of the condition of District levees, input to protective action decisions being made by public safety agencies, and any requests to modify or conform the District's response that come out of the multi-agency coordination process.

#### 3.2.3 Public Information and Risk Communications

If required, the District General Manager is authorized to speak to the media on behalf of the District as part of the Sacramento OA Joint Information Center (JIC). The District also updates its website with information related to District activities.

Although the District does not have a dedicated Public Information Officer (PIO), the General Manager will coordinate with the City of Sacramento (City) and the County to get critical information to the public. The City and the County have PIOs that will manage the dissemination of information to the public, either through press releases, press briefings, or social media.

#### 3.2.4 Evacuation

The City is responsible for coordinating the evacuation of residents and visitors in the District. The City Manager has the authority to issue evacuation recommendations and the City Police Department manages the evacuation. The City of Sacramento Evacuation Plan describes the Concept of Operations for evacuation in the City limits. The City is responsible for the following regarding evacuation:

- Recommending evacuations for all or part of the population from a threatened or impacted area if considered necessary for preservation of life, property, or the environment
- Prescribing routes, modes of transportation, and destinations in connection with evacuation
- Controlling ingress and egress from a disaster area, the movement of persons, and the occupancy of premises in the area

#### 3.2.5 Maintaining Emergency Equipment, Supplies, and Resources

The District Superintendent is authorized to maintain District equipment, supplies, and resources for emergency response and is responsible for doing so. The Superintendent ensures that supplies are maintained at inventory levels set by the Board or at any minimum levels that may be set by DWR guidance or statutes.

#### 3.2.6 Monitoring Levees, Water Conditions, Elevations, and Flood Forecasts

The District Superintendent is responsible for monitoring levees, water conditions, elevations, and forecasts for identifying conditions warranting additional action beyond routine flood preparedness as outlined in this plan.

#### 3.2.7 Emergency Staff Activation

The District General Manager and District Superintendent are authorized to activate—and are responsible for doing so—District staff and/or flood response contractors and resources; to request Mutual Aid assistance from (or provide it to) public agencies; and to supervise District staff, contractors, and/or Mutual Aid resources assigned to the District for (1) levee patrol, (2) flood fight operations, and (3) District de-watering operations (if applicable).

#### 3.2.8 Documentation

The District Office Manager is authorized to maintain necessary documentation of emergency expenditures, damage to District infrastructure, and use of supply inventories in accordance with the requirements of Federal and State disaster assistance programs and is responsible for doing so.

The District Office Manager, under the authority of the District General Manager, is also authorized to prepare and submit disaster assistance claims during the recovery period through all Federal and State disaster assistance programs that may be applicable and relevant to District costs and is responsible for doing so.

### 3.3 Responsibilities of Supporting Agencies

During a levee breach and/or flood fight operation, the District may request support from other agencies. These agencies and their responsibilities are identified below.

#### 3.3.1 California Department of Water Resources

The mission of DWR's Division of Flood Management is to prevent loss of life, reduce property damage caused by floods, and to assist in recovery efforts following any natural disaster. The State-Federal FOC, which is in Sacramento, is a component of Division of Flood Management's Flood Operations Branch. Year-round, the FOC is the focal point for the gathering, analyzing, and disseminating of flood- and water-related information to stakeholders. During emergency situations, the FOC provides a facility from which DWR can centrally coordinate State-wide emergency response.

When streams and rivers are forecast to rise above certain pre-determined stages (water surface elevations) or flow rates, FOC personnel make high-water notification calls to appropriate flood system LMAs and emergency response agencies.

DWR also provides staff to the California State Reclamation Board; assists local flood control districts, particularly during flood events; monitors river and reservoir levels; and operates the FOC as described above. In addition, DWR is responsible for operation and maintenance of a number of levees in the Central Valley through State Maintenance Areas and a number of dams and reservoirs. DWR also has a significant role in water supply.

#### 3.3.2 U.S. Army Corps of Engineers

When a disaster exceeds the capabilities of State and local interests, the USACE may provide assistance under Public Law 84-99 to save human life, prevent immediate human suffering, or mitigate residential and commercial property damage. USACE assistance may include acquisition of flood fight materials, geotechnical evaluation of levees and other flood operations structures, contracts for emergency flood fight and temporary repairs, clearance of drainage channels or blocked structures, technical assistance for development of plans, and, on request, inspection of non-Federal dams and flood control projects. USACE also has jurisdiction over storage capacity seasonally reserved for flood control on most major reservoirs throughout California.

#### 3.3.3 California Data Exchange Center

The California Data Exchange Center (CDEC) provides a centralized database to store, process, and exchange real-time hydrologic information gathered by various cooperators throughout the State. CDEC disseminates this information to the cooperators, governmental and private agencies, news media, and the general public. The data collected by CDEC enables forecasters to prepare flood forecasts and water supply forecasts, reservoir and hydroelectric operators to schedule reservoir releases, water suppliers to anticipate water availability, and flood emergency personnel to prepare and disseminate flood hydrology data and reports.

CDEC formats and manages data for public use via the Internet. Its extensive website is accessible to flood emergency personnel, private and public agencies, news media, and the general public. Valuable information is created from the data and presented in a variety of formats, including maps, plots, charts, and publications. The website is a useful and effective tool for monitoring current flood conditions and provides real-time information, including river stages, precipitation, snow water content, temperature, water quality, and full weather data.

#### 3.3.4 State of California Central Valley Flood Protection Board

The State of California Central Valley Flood Protection Board oversees flood control activities in the Central Valley. It serves as the local sponsor to the USACE on Federal flood control projects, cost-shares in the projects, holds title or easements to the lands underlying the projects, and inspects the operation and maintenance of the facilities by the local flood control and reclamation districts. The board is the regulatory authority about any proposed activity that could affect the flood control system.

#### 3.3.5 City of Sacramento Department of Utilities

The City of Sacramento Department of Utilities (DOU) primarily operates and maintains water and wastewater systems, including local drainage systems, which consist of storm drains, culverts, pumping stations, and channels with levees. These drainage systems pump water into the levee systems. Also, DOU operates and maintains local levees and the portions of the Sacramento and American River levee systems that are outside the boundaries of the ARFCD.

#### 3.3.6 County of Sacramento Department of Water Resources

The County of Sacramento Department of Water Resources (County DWR) provides drainage, water supply, and flood control services to areas within their jurisdiction. County DWR consists of a Drainage Division and a Water Supply Division, with the Drainage Division Maintenance Engineering Section having primary responsibilities in flood operations. During storm events, County DWR activates a Department Operations Center (DOC) and a Field Support Operations Center (FSOC) and provides staff to the County of Sacramento Emergency Operations Center (County EOC) to coordinate activities and share information. County DWR staff actively monitor rainfall and stream flow conditions through the County Automated Local Evaluation in Real Time (ALERT) gage system, provide field crews for emergency maintenance and levee patrols of several small County-maintained levees, and assist emergency personnel in flood-related activities. County DWR field crews respond to service calls made to the 875-RAIN dispatch center related to localized flooding throughout the County and have primary responsibility for carrying out the operation and maintenance of pipe, pump, and channel drainage systems.

County DWR serves as the floodplain management agency for the County. As such, the agency is instrumental in preparing a County-wide perspective on flood preparedness and flood fight efforts in the area. County DWR plays a key role in gathering, analyzing, vetting, and disseminating weather forecast and water level information County-wide and communicates this information directly to potentially impacted parties, such as Reclamation Districts (RDs), incorporated cities, and local communities. County DWR also provides assistance to RDs in the form of levee patrol support crews and water removal through pump stations.

County DWR also maintains the County's Storm Ready Program, which informs the public about flood safety and actions that should be taken during a flood threat.

#### 3.3.7 County of Sacramento Office of Emergency Services

The County of Sacramento Office of Emergency Services (County OES) has responsibility for administering the emergency management program for the County. As part of this responsibility, County OES supports the operation of the Sacramento OA Emergency Operations Center (OA EOC), issues warnings and notifications, provides subject matter expertise on and maintenance of emergency response plans, and coordinates requests for resources and assistance when the OA EOC is not activated.

# 4 Direction, Control, and Coordination

# 4.1 Management and Control of District Operations and Coordination within the District

District staff authorized and responsible for carrying out the actions use the direction, control, and coordination processes described in this chapter.

District staff apply the Incident Command System (ICS) and SEMS to organize District response activities, manage field-level response activities, and coordinate with supporting agencies.

The General Manager serves as the Emergency Manager for the District during emergency operations. The General Manager supports the Incident Commander and coordinates with the City when additional assistance is needed and to share critical information.

# 4.2 Management and Policy

The District maintains direction and control of District operations during emergency periods. The District Board of Trustees meet and confer as deemed necessary by the President during emergency operations to perform its policymaking and financial responsibilities during emergency response operations. Board meetings occur in the field or, if needed, at the office of the District.

The Board President issues Delegation of Authority letters as required.

# 4.3 Incident Commander

The Incident Commander at the flood fight scene is in charge of all resources responding to that emergency site. The Incident Commander may assign missions to flood fight crews acquired under Mutual Aid from other governmental agencies, tasking them to perform specific actions to facilitate the response.

The District Superintendent serves as Incident Commander to manage all incidents occurring on the District levee system during any single disaster event as allowed in the NIMS protocols. The District operates on a 24-hour operational period. If necessary, the Incident Commander requests assistance from the District General Manager.

### 4.4 Management and Coordination with Other Jurisdictions

During a flood threat incident, the District maintains regular communication with the FOC, the City EOC, and the County OA EOC. Through the FOC (and information on the DWR website), the District provides updates on the conditions of the levees and receives information about the reservoir levels and anticipated releases. The District may also seek technical assistance on handling levee problems. The FOC has representatives from the National Weather Service, U.S. Bureau of Reclamation, and USACE available to provide information and assistance. The City

EOC coordinates the local emergency response. The District provides regular updates on the conditions of the levees and observed river levels. The District may also ask for assistance (e.g., traffic or crowd control or other emergency response) from law enforcement and/or fire departments through the OA.

For flood threats, a multiagency coordination (MAC) group may be established to share information and facilitate the coordination of resource requests. The City, County or State depending on how widespread the flood threat is can facilitate the MAC Group. The MAC Group includes the participation of representatives from all agencies that have an active role in the coordinated flood response. The MAC Group can meet in person, but is commonly convened as a conference call on a pre-set schedule.

Either as part of MAC Group participation or through direct communication with the City and/or County, the District will provide updates on the conditions of the levees and observed river levels. The District may also request assistance (e.g., traffic or crowd control or other emergency response) from law enforcement and/or fire departments through the Sacramento County OA.

# 4.5 Sacramento Operational Area Emergency Operations Center

The County maintains and hosts the Sacramento OA EOC at 3720 Dudley Boulevard, McClellan, CA. The Sacramento OA EOC prioritizes the allocation of resources, including Mutual Aid; performs information sharing; and conducts coordination processes in accordance with the MAC system procedures maintained by the County OES.

The Sacramento OA Planning Section provides disaster intelligence and situational status to participating jurisdictions on activation in an emergency. The District participates as needed in this disaster intelligence and information-sharing process.

The District General Manager participates in the Sacramento OA MAC system processes and procedures on behalf of the District.

# 4.6 State-Federal Flood Operations Center

DWR has special authority under California Water Code Section 128 to assist RDs with flood fight operations. DWR maintains the FOC to coordinate the performance of these functions and support the operations of other State and Federal agencies.

The District coordinates with the FOC to share information and to notify DWR of requests submitted to the Sacramento OA for resources and technical assistance. The District communicates with the FOC through telephone systems or at MAC activities where FOC representatives are present.

# 4.7 Sacramento Operational Area Joint Information Center

When necessary, a JIC is established to coordinate the handling of Emergency Public Information operations for the County and the OA. A JIC is established at a suitable location (removed from the EOC, but in close proximity to it) to provide for effective management of Emergency Public Information functions. When activated, the JIC is staffed by personnel trained to conduct Emergency Public Information activities, including coordinating inter-jurisdictional media releases and the management of rumor control functions. When necessary, the District General Manager coordinates with the JIC to share information with the public.

# 4.8 Plan Activation Authority

The District Board of Trustees and the District General Manager\_have the authority to activate this FSP based on the emergency situation.

# 4.9 Disaster Intelligence

During river and levee monitoring and flood fight operations, the District collects disaster intelligence to evaluate the situation and provides updates to supporting agencies. Disaster intelligence is the means, the tools, and techniques the District uses to identify, collect, analyze, and disseminate information on the current and future extent and consequences of a flood. Intelligence is shared primarily with the City EOC, the Sacramento OA EOC, and the FOC.

# 4.10 Weather Forecast

The advent of satellite imagery and sophisticated computer models has significantly improved the ability to forecast the times and intensities of rainfall. Managing flood response requires knowledge and understanding of the implications of weather predictions for other parts of the watershed and the local area. The National Weather Service provides daily briefings on upcoming weather as part of its role in the FOC. The District participates in these briefings starting at the River Advisory Stage.

# 4.11 River Forecast

In addition to precipitation forecasts, the District General Manager must also know how the resulting runoff affects reservoir storage, releases from dams, and ultimately the amount of water flowing in the river. Hydrologists for DWR work with the National Weather Service in the California-Nevada River Forecast Center (CNRFC) to provide twice-daily forecasts of river height at various points. These forecasts are issued as "River Bulletins," and the District subscribes to DWR's email distribution system. Also, the District regularly reviews the website of the CDEC, which provides data on reservoirs, rivers, and rainfall (<u>http://cdec.water.ca.gov/</u>).

# 4.12 Levee Patrols

As important as it is to anticipate the potential situation, it is equally as vital to be aware of current conditions and sudden shifts in those conditions. The District Superintendent maintains regular contact with levee patrols. This contact ensures that the District quickly learns of any changes in the situation, facilitating prompt response. Levee patrols are defined in Levee Patrol Plan, in **Appendix B**.

# **5** Communications

# 5.1 Communications Organization

During day-to-day operations and flood response operations, District staff, contractors, and other staff working under District supervision must be able to communicate and share information. At a minimum, the District must be able to communicate internally with other public agencies operating within the District, neighboring RDs, the Sacramento OA EOC, and the FOC.

# 5.2 District Communications

The District operates communications equipment on a limited basis, including the use of Satellite phones; landlines – both digital and analog; fiber optic cables, and emergency radios. The District relies on the personal cell phones of its staff and trustees to maintain communications between the District Board of Trustees, the District General Manager, the District Superintendent, and other response staff that may be hired during the emergency period. In the event of a failure of cellular telephone systems, the District will use messengers to transmit information between its staff and other jurisdictions and regularly scheduled coordination meetings of the field unified commands and the Sacramento OA organization.

### 5.3 Communicating with Other Jurisdictions

The District maintains communications with other jurisdictions by cellular telephone and by participation in meetings of the Flood Fight Incident Command and MAC groups.

### 5.4 Sacramento Operational Area Emergency Operations Center

The District maintains communications with the Sacramento OA EOC by cellular telephone and participates in scheduled meetings of the MAC groups. The District maintains telephone numbers assigned by the OA for use by RDs (see **Appendix A: Emergency Contact List**).

### 5.5 State-Federal Flood Operations Center

The District communicates with the FOC by cellular telephone.

# 5.6 Public Alerting Systems

Public alert and warning is necessary to increase public awareness of an impending threat and to provide clear instructions should an emergency situation require the need for evacuation. In fact, the vital first step of a successful evacuation from the District would be timely public alerting that allows the public the opportunity to safely move to non-impacted areas.

During public alert and warning, the District promptly notifies the City of Sacramento Office of Emergency Services (City OES) or County OES, depending on the jurisdiction impacted. Both the City and the County are responsible for alerting and warning the public on identification of a

threat to District levees. The District provides detailed information about the characteristics of the threat and assists, to the extent possible, with notification of the public if requested. All alerting and warning of the public are carried out in accordance with the plans of protected jurisdictions.

When multiple jurisdictions are impacted, alerting and warning are conducted jointly by these jurisdictions through the Sacramento OA using the procedures contained in the Sacramento OA EOP. The District provides support to the OA and JIC to assist with alert and warning messages if requested.

The City and County use several methods to notify the public of an evacuation request. These methods include:

- Emergency siren system
- Emergency alert system (EAS)
- Media hotline and media release
- Reverse 9-1-1 system
- 2-1-1 Sacramento
- Fire and police vehicle loudspeakers
- County Information Services: Sacramento County Information Center and County Operator
- Vulnerable population databases, neighborhood watch programs, and other community support programs
- Neighbors alerting neighbors

People with disabilities and access and functional needs are be notified by support service agencies. Also, the City Operator and the 3-1-1 system are available for the notified public to call for more information.

Those who are evacuating throughout the County or out of the County continue to receive information as to road conditions through the California Department of Transportation (Caltrans) 5-1-1 system for highway conditions, Caltrans changeable message signs, and via EAS on local radio.

### 5.6.1 Emergency Alert System (EAS)

The 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.

The system is used within Sacramento County on a voluntary basis during day-to-day situations that pose a threat to the safety of life and property. Sacramento County uses a commercial

broadcast facility - (radio KFBK or television KCRA) - as the central point of information dissemination under the EAS format. Access to EAS is coordinated through the Sacramento County Office of Emergency Services. (Please refer to Appendix D Evacuation).

The City of Sacramento manages the Emergency Alert System and is described in their City of Sacramento Evacuation Plan

# 5.7 Protocols for Contacting Levee Patrols

Initial contact with the Levee Patrol Team(s) shall be in accordance with the Emergency Contact List (Appendix A). Generally, communications with Levee Patrol Teams will be through the General Manager.

#### 5.7.1 Other Communications Protocols

All other communications shall be in accordance with the Incident Communications Plan, as documented on Incident Command System (ICS) forms ICS 204 and ICS 205.

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# 6 Administration, Finance, and Logistics

### 6.1 Mutual Aid

The ARFCD has mutual aid agreements with the City and the County to provide supplemental staff during floods for round-the-clock levee patrols. The District has also signed agreements with local contractors, who are ready to respond 24 hours per day, 7 days per week, with trained personnel, equipment, and material (such as rock, aggregate base, sand, and fill dirt) if a levee is threatened. Relying on these agreements with the City, the County, and local contractors allows the District to provide services efficiently with a high level of reliability.

# 6.2 Record Keeping

The District General Manager tracks, records, and reports on the work time of all District flood response personnel, including that of flood emergency contractors. The District General Manager collects and maintains documentation on all emergency information needed for reimbursement by Cal OES or FEMA. The ARFCD retains these records for audit purposes for 3 years after receiving a final Cal OES or FEMA close-out letter. Examples of documentation that should be retained include:

- Timesheets and payroll records
- Equipment ownership and usage
- Equipment rental agreements and invoices
- Invoices/receipts for materials and supplies
- Contract documentation such as procurement information, executed contracts, amendments and change orders, and payment records

# 6.3 Resource Tracking

Comprehensive resource management is a key management principle. It implies that all assets and personnel during an event need to be tracked and accounted for. Resource tracking ensures maintenance of accountability over all resources. Thus, 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 people during a flood. The objectives of resource management are to (1) maximize efficient resource use while maintaining cost-effectiveness and resource safety; (2) consolidate control of single resources to reduce communications activity; and (3) instill resource accountability. Resource management enhances the benefit of Mutual Aid agreements and improves interoperability.

Flood response resources include (1) personnel or equipment to perform a specific operation; and (2) supplies and facilities to support on-scene incident operations. The District Office Manager tracks the use of and maintains records on the resources applied to flood response.

## 6.4 Resources

The District maintains an inventory of flood fight supplies. The inventory is found in **Appendix D: Flood Fight Resource Inventory.** 

## 6.5 Flood Response Contractors

Should a problem be identified on the levees, the District uses resources from the City or County to monitor specific locations as necessary. If the problem requires action such as reinforcing the levee by placing dirt, sandbagging a boil, or armoring a levee slope with rock and visquine, the District has flood emergency response agreements executed with several local contractors. These agreements provide for an immediate response 24 hours per day, 7 days per week. The companies currently under contract have extensive experience in providing similar emergency flood services. Determinations of the appropriate action are made by the District General Manager with input from local levee experts, the State Flood Fight Specialist, and engineers from USACE. Full-time monitoring and record keeping are performed by County construction inspectors.

The District maintains standard forms and processes for initiating and executing contracts with private vendors. The District maintains a standard contract form for contracts under \$25,000 in a no-bid environment. The District maintains a separate contract form for contracts over \$25,000, adding a bonding requirement. Contracts over \$25,000 are awarded through an informal bid process.

## 6.6 Logistics Facilities

See **Appendix C** for the locations of pre-planned delivery points, the locations of District supplies, and District supply staging areas and points.

## 6.7 Finance and Administration

The District maintains financial and administrative records associated with emergency response in accordance with Title 44 Code of Federal Regulations Part 13, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments. Emergency response and construction records, including field reports and procurement and construction management files are maintained by both the District and the District Superintendent and are retained as prescribed by the grant authority.

Also, in anticipation of a flood emergency, the District has established a Flood Fight Reserve Fund. Currently, the fund has approximately \$1 million, which is estimated to be sufficient for a 2- to 3-day flood fight.

## 7 Plan Development and Maintenance

### 7.1 Plan Development, Review and Maintenance

The General Manager has primary responsibility for developing, reviewing, and updating this FSP on a regular basis. The General Manager will request input from individuals, jurisdictions, and agencies having responsibilities under this plan.

Every four years this plan will be reviewed in its entirety, updated, 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 General Manager when changes occur or are imminent.
- These changes will be incorporated into this plan, published, and distributed to jurisdictions and agencies holding this plan (see Distribution List).

## 7.2 Training and Exercises

All emergency responders from ARFCD are strongly encouraged to take advantage of FEMA's on-line training. In addition, the General Manager of ARFCD will notify holders of this plan of training opportunities or scheduled exercises associated with flood emergency management and operations, such as DWR's annual Flood Fight sessions. Individual jurisdictions and agencies are responsible for maintaining training records. This plan will be exercised regularly. The General Manager will conduct emergency preparedness exercises in accordance with an annual exercise schedule. Jurisdictions and agencies having assigned responsibilities under this plan must ensure assigned personnel are properly trained to carry out these responsibilities.

## 7.3 Evaluation

The General Manager will coordinate and facilitate post-incident analyses following emergencies and exercises. An After-Action Report (AAR) and Implementation Plan will be prepared by General Manager and distributed to those jurisdictions and agencies involved in the emergency or exercise. The Board of Trustees will review and approve the AAR which will briefly describe District operations, any response problems that arose, and damage sustained by the District levees and infrastructure. The AAR will also contain recommendations for improving flood emergency operations in the future. The Board provides direction to staff on the preparation of changes, additions, or revisions to the District FSP.

## 8 Authorities and References

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

### 8.1 Federal

- 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

- 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

• Resolution of the Sacramento City Council adopting the Flood Emergency Response Services with ARFCD, dated December 1, 2004.

# **Emergency Contact List**

Company	Name	Office	Cellular	After Hours
Other				
RD 1000	Paul Devereux	922-1449	417-4170	417-4170
SAFCA	Rick Johnson	874-8737	261-6675	530-677-5285
	John Bassett	874-8731	704-8731	780-7421
	Pete Ghelfi	874-8733	207-1521	207-1521
RD 900	Tony Schwall	371-1483		684-2262
	Kenric Jameson	371-1483		718-9875
RD 1001	Drew Stressor	530-656-2318	530-335-6359	530-674-0165
Natomas Basin Conservancy	John Roberts	649-3331	224-2000	
Natomas Central Mutual Water Company	Steve Hetherington	419-5936	826-7673	564-1425
	Brett Gray	419-5936	826-7672	826-7672

Company	Name	Office	Cellular	After Hours
Utilities				
SMUD (Power Outages)				888-456-7683
SMUD – Emergency Dispatch		732-5338		
SMUD Wire Down – 24 Hour		732-5334		911
PG & E	Lorie Rodgers	530-320-9063	530-757-5245	800-743-5000
"I" Street Bridge Tender		789-5948		
Tower Bridge Tender		442-5298		

Company	Name	Office	Cellular	After Hours
City of Sacramento				
City of Sacramento Emergency - OES	Jason Sirney	874-2283	216-0324	216-0324
	Steve Winton	808-1833	974-6391	
City of Sacramento 24-hour Line	264-5011			
Department of Utilities 1 <sup>st</sup>	Bill Busath	808-1420	834-6715	
Department of Utilities 2 <sup>nd</sup>	Mike Malone	808-6226	897-0133	335-8897
City Public Relations	Jessica Hess	808-8260	698-1705	698-1705
City Pumps	Kim Capul	808-5229	952-8802	952-8802
Public Works (Street Maintenance Service Div)	Jerry Way	808-6381	804-3703	273-9057
City – Fire Department 808-1300	Duty Chief	228-3035		228-3035
	Dan Haverty	808-1601	216-0301	216-0301
City – Police Department	Watch Commander	264-5471	264-5151	264-5334
City – Flood Operations	Bill Roberts	808-6955	910-3582	
Company	Name	Office	Cellular	After Hours
County of Sacramento				
Sac County – Emergency Operations	Roger Ince	874-7043	204-0123	875-6900
	Steve Cantelme	874-4672	806-6596	875-6900
Sacramento County 24 hour Line		875-6900		875-5000
Sac County – Water Resources				
	Michael Peterson	874-8913	747-4061	782-8518
	George Booth	874-6484	847-3778	784-1954
WR Storm Dispatch 875-RAIN (7246)	Steve Kenning	875-7142	599-0287	223-2320
Sac County – Levee Patrol	Dan Barry– Day Shift	874-7156	541-7804	635-0286
Sac County – Water Quality (storm drains)				875-7246
WQ Superintendent	Scott Miller	875-5298	956-3779	965-5295
WQ North Corp Yard	Gary Bailey	876-6383	591-1273	530-672-0202
WQ Drainage/Water Mechanical	Tom Pasterski	876-6430	591-0468	
NEMDC Pump Station		876-6276	508-7356	536-9893
Sac County - OES	OES Duty Officer	875-5000		

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Sac County – Sheriff		874-5128	874-6742	
Sac County – Sheriff Alternate	Lt Mike Jones	874-7953	606-2837	874-5111
	Sgt James Schaefers	874-5980	606-0896	874-8283
See County Bark Banger (Dispetcher)		875-6672		
Sac County – Park Ranger (Dispatcher)		875-7275		
Sac County – Park Ranger		875-6548		
Sac County – International Airport	24 Hour Duty desk			
	Robert Rose (Maintenance Manager)	874-0745	806-5330	
	Joe Fernandez	874-0376	806-5335	
Sac County – International Airport (alternate)	Call Center	874-0656		

Office	Cellular	After Hours
574-1730	764-2942	764-2942
574-2643	698-8674	771-0392
574 1204	970 9102	210 717 0507

Item 8

State				
DWR (Flood Project Inspection Section)	Donald Rasmussen, Chief	574-1730	764-2942	764-2942
	John Williamson	574-2643	698-8674	771-0392
DWR (Flood Project Inspection)	Pavel Kazi	574-1204	870-8103	310-717-0507
DWR (Levee Inspection)	Matt Hoffman	574-1208	214-3532	209-663-0905
	Dave Pasevento	574-1205	870-9482	723-2689
	Herman Phillips	574-2646	698-8674	
	Anna Fong	574-2632	216-8697	
DWR (Sacramento Maintenance Yard)	Main Number	375-6000		375-6020
	Russ Eckman	375-6004	952-8445	992-0809
	Phil Carey	375-6000	799-4227	991-1916
State Flood Center (24 hour line)	Non Public Number	574-2619		800-952-5530
California Conservation Corps	Emergency Branch	599-1415		
CCC Emergency Analyst	Melinda Allen (24 Hour)	341-3160		
California Emergency Management Agency				845-8911
Cal Trans Maintenance Yard Dispatch	859-7900 (24 hour)			653-3442
California Highway Patrol		861-1299		861-1333
Central Valley Flood Protection Board (CVFPB)	Leslie Gallagher	574-0609	709-0160	709-0160
	Len Marino	574-0608	203-4432	
	Michael Wright	574-0694		
Office of Emergency Services – Inland Region		845-8911		
		845-8510		

Name

Company

Company	Name	Office	Cellular	After Hours
Federal				
U.S. Army Corps of Engineers (Emergency Operations Center [EOC]) 24-hr		452-1535		452-1535
	Gary Fong	557-6974	807-0026	525-2601
	Krystal Bell	557-6903	807-0028	202-1325
	Brigid Briskin	557-6918	807-0033	807-0033
U.S. Bureau of Reclamation/Folsom Dam		989-7214 989-7251 or 52		989-7214 989-7251 or 52
U.S. Coast Guard - Rio Vista	Ask For "Officer of the Day" (OOD)	707-374-6674 707-374-2871 (24 hr)		707-374-2655
National Weather Service				
Senior Service Hydrologist	Cindy Matthews	979-3045	209-481-8911	209-369-3316

## Appendix B Levee Patrol

#### **B.1** Purpose

The purpose of levee patrols is to have qualified personnel visually evaluate the performance of the District levee system. Their intent is to determine the condition of the levee and to identify potential and existing problems:

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

Implementation of this procedure will ensure each member of the Levee Patrol Team is capable of participating in precautionary actions and emergency response that may occur with <u>the</u> District's levee system.

This program will predominantly be undertaken by the District, with operational support from the Sacramento County. The major objectives of this procedure are to:

- Develop a training program to ensure qualified personnel are available for use
- Ensure materials, equipment and supplies are available to implement this procedure and are maintained in a serviceable condition to meet the needs of the ARFCD
- Ensure action levels are established and in place to manage potential challenges
- Prepare members to recognize the interface between allied agencies should escalating events require large-scale operations
- Prepare members to patrol levees to locate potential problems (including vandalism or terrorism), to alert the EOC, and to actively coordinate work, using flood fight and other 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 participants will complete the following training to become qualified 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
- Treatment of boils
- Safety precautions
- Visquine wave wash protection
- Freeboard enhancement

Upon completion of both the classroom and practical functions, a member will remain qualified for 12 months from the final date of training. During flood emergency response conditions, it may be infeasible to provide new volunteers with the "Practical" training session. Instead they will be partnered with experienced patrol personnel who will help and instruct them.

#### **B.2.2 Component II – Equipment Procurement and Maintenance**

The Sacramento County and the District have a responsibility to ensure the following equipment is staged in an approved location and is in serviceable condition. The following resources, resource lists, and locations shall be maintained by the listed agencies.

(20) Three-cell watertight flashlights	(4) 500-watt lights
(60) 'D' cell batteries	(2) Light standards
(10) CAL-OSHA approved hardhats	(8) Propane lanterns
(20) Flat-tipped shovels	(4) Portable radios
(10) Sets of assorted size raingear	(200) Orange wire marking flags
(20,000) Empty sandbags	(200) Yellow wire marking flags
(2) Generators 3,500 KW or larger	(200) Red wire marking flags

#### ARFCD Office Building

#### Sacramento County Fire Department

(20) Watertight flashlights	(20) Orange vests
(80) 'D' cell batteries	(10) Portable radios
(26) US Coast Guard approved lifejackets	(10) GPS Units
(25) CAL-OSHA approved hardhats	(2) Vehicles with mobile radios
(6) Flat-tipped shovels	(1) Base radio

#### **B.2.3 Component III – Levee Patrols**

- The District Superintendent will create routes that ensure complete coverage, and wherever possible, overlapping coverage.
- The District Superintendent will physically account for all personnel working under their control on an hourly basis.
- All members will receive a safety briefing prior to commencing patrols and will use all provided safety gear.

#### **B.2.3.1 Motor Patrols**

- The levee motor patrol will consist of the following:
  - Multiple four-wheel drive vehicles with mobile radio capabilities.
  - Two trained and currently qualified observers per vehicle.
  - Patrol areas will be divided as shown on the attached map.
  - Patrol crews will be rotated on a 12-hour frequency.
  - Completion of a Patrol Log and/or Division Activity Log will be required for each shiftusing ICS Form 214.
  - All members will receive a safety briefing and utilize appropriate safety gear.

#### **B.2.3.2 Walking Patrol**

A levee walking patrol will be enforced, as necessary:

- Teams of two personnel physically walking a designated section of levee. One person will be positioned at the toe of the land side of the levee. The second will be assigned to the top of the levee.
- Foot patrols will check visually for potential problems with the levee as per training.
- Areas of concern will be identified and tagged.
- All tags will be evaluated by the District Superintendent conducting motor patrol activities. Flags will be used to designate the levee's condition. When a potential problem is identified, the condition will be reported to Command for an immediate evaluation by the Engineer.
- All levee foot patrol personnel will have the following at a minimum:
  - Three-cell watertight flashlight
  - Cal OSHA-approved hardhat
  - Raingear, if warranted; each individual is responsible for boots
  - Reflective vest
  - o (10) Flags
  - Global Positioning System (GPS) unit to establish latitude and longitude of trouble sites
  - o U.S. Coast Guard-approved lifejacket
  - One member of each foot-patrol team will be equipped with a portable radio. Radio communication should be minimized to prevent channel overload. All radio communication will be conducted in plain English, with no jargon or acronyms.

• Walking patrol personnel will be rotated on an as needed basis.

#### **B.2.4 High Water Staking Procedures**

- High water staking: Record the extent of high water by placing markers (stakes) periodically as the event progresses
- Reference those high water locations with suitable surveying or GPS locations
- Provide that information to the jurisdiction and DWR upon request

### **B.3 Augmenting Staff**

When local personnel resources are depleted or reasonably committed, mutual aid is requested and coordinated within the Operational Area (OA). If OA resources are not sufficient or timely, the request is then forwarded to the Cal EMA Regional Emergency Operations Center (REOC). The REOC evaluates and fills requests by (a) staff from unaffected OAs, (b) tasking a State agency, or (c) accessing federal assistance. (see Appendix C, Section 4 for Procedures.)

## Appendix C Flood Fight

## C.1 Trigger(s)

At the River Warning Stage or upon notification of a potential problem by a levee patrol, establish necessary staging areas for supplies, equipment, and personnel. ARFCD\_has ensured the staging areas are a safe distance from other emergency facilities, such as evacuation centers, shelters, and Incident Command Posts. If required by the situation, commence filling sandbags.

### **C.2** Prioritization

ARFCD 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.

Based on input from levee patrols and other informed observers, the Sacramento County EOC establishes a Unified Command to set priorities for flood fight operations. All Incident Commanders conduct an Initial Unified Command Meeting. This meeting provides responsible agency officials with an opportunity to discuss and concur on important issues prior to joint incident action planning. The agenda for the command meeting includes the following:

- Set 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 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 designations 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 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 General Manager of ARFCD has the authority to activate this Appendix. Dispatch of Flood Fight Teams shall be in accordance with priorities set by the General Manager.

## C.4 Personnel

ARFCD maintains a cadre of emergency responders. Additional flood emergency response staffing comes from other ARFCD employees and from volunteers.

When the ARFCD requires additional people for sand bagging, emergency debris clearance, diking, and similar activities to save life and protect public safety, 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 within the Sacramento County Operational Area (OA). If OA resources are not sufficient or timely, 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 EMA controls missions and mission assignments for State resources and coordinates requests for federal resources. If Cal EMA receives a request for crews that meets the criteria for State agency tasking and if an agency has the capability, Cal EMA 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 (a) there must be actual or imminent danger to life or public safety, and (b) 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 EMA. 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 EMA mission number respond free of charge. Crews may require feeding and sheltering; transport vehicles may require gas and maintenance. These services 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 Sacramento County OA, the EOC will forward unfilled requests to the Inland REOC Operations Section. The REOC will follow up with the <u>Sacramento</u> County OA EOC 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, hard copy of the form should be faxed to the Inland 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 EMA 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 Sacramento County OA EOC must take special care not to duplicate requests with any 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 below).

#### C.4.6 Fire Mutual Aid

Unlike procedures for other types of emergencies, crews supervised by Cal Fire for flood fight are *not* accessible under the Fire and Rescue Mutual Aid Plan. All requests for crews for flood fight 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 Sacramento County OA Region Fire Branch coordinator and the Sacramento County OA Construction and Engineering Branch coordinator communicate closely to avoid confusion and delay.

#### 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 following sites as having hazardous chemicals stored onsite.

16/2017		Hazardous Mate	rial Inventory: CERS Bu	siness	
lifornia Er	vironmental Reporting System: Business		<u>n</u>	ialane Chapman's Account	Sign Out Tools Reports
		Home	Submittals	Facilities Comp	pliance My Business
	dous Material Inventory: AM Submittal History >> Submittal: 11/3/2017 (106				
🔞 Inst	ructions/Help				(
-Invento	tire Submittal Start New Submittal ory Actions ad Inventory Inventory F Facility's Inventory CERS Cher	<u>Reports</u> mical Library			
	dous Materials Inventory (4)				Submitted Nov. 3, 20
	Common Name	CAS	Location		Max Daily Amount
View	Glyphosate Isopropylamine Salt	38641-94-0	Locked Herbicide Sto	rage Area	110 gallons
View	Cement	65997-15-1	On Pallets In Wareho	use	11,280 pounds
View	Concrete Mix	14808-60-7	On Pallets In Wareho	use	2,880 pounds
View	Diesel Fuel No. 2 🖨	68476-34-6	In Secondary Contain	iment	110 gallons

Version 2.23.0016 | Enhancements | CERS Central

10

items per page

HMIS Matrix Report

Diagnostics | Conditions of Use | Privacy Policy | Contact | |

Export To Excel

1 - 4 of 4 items

California Environmental Reporting System: Business [ © 2017 California Environmental Protection Agency CERS Technical Support: <u>Request Technical Assistance</u> Unified Program/General Assistance: Contact your <u>local regulator(s)</u>

## C.6 Materials and Supplies

In accordance with DWR recommendations, ARFCD has stockpiled the following items for flood fight activities for the 2017/2018 flood season. Following is a map of Flood Response Resources.

## **Supplies**

Sandbags Empty	9,000
Sandbags full	2,000
Visquine 20' X 100' X 45	4500'
Rope	300'
Stakes	1000
Twine 5,500 ' X 7	38500'
Buttons	3,500
Emergency Blankets	6
Life Vests	14
Musclewall Barriers	75'
Rip Rap	9,000 Tons
Lath	200
Fill Dirt	2,000 Yards

## Equipment

JD 624H Loader
JD 410E Backhoe
JD 75G Excavator
International Dump Truck 10 Yd
Peterbilt Dump Truck 10 Yd
GMC Dump Truck 5 Yd
Komatsu Crawler Carrier 5 Yd
Portable Light Tower
4 X Portable Pumps
2 X Portable Generators



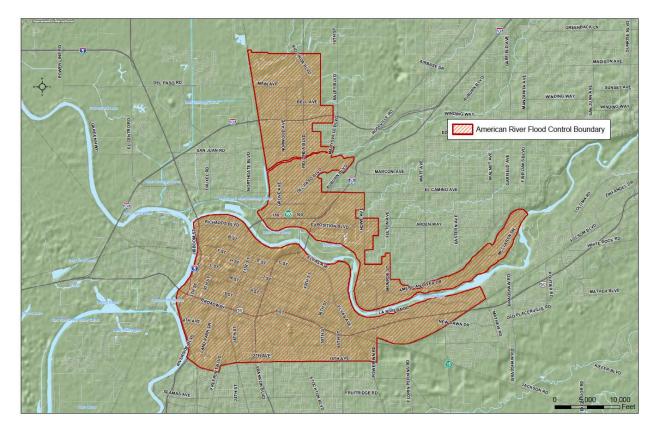
## C.7 Training in Flood Fight Procedures and Techniques

Personnel from ARFCD participate in DWR Flood Fight training, which DWR provides annually. Also, see the DWR Flood Fight Manual: <u>http://www.water.ca.gov/floodmgmt/docs/flood\_fight\_methods.pdf</u>

### C.8 Utilities

In general, coordination with utilities will be the responsibility of the OA EOC. When on-scene coordination is needed, the Utility Representative becomes part of the IC's staff. In principal, the Utility Representative gives advice to the IC; in practice the Representative often works directly with the Operations Section Chief.

# Appendix D Maps



#### American River Flood Control District Boundary