

State of California
Natural Resources Agency
DEPARTMENT OF WATER RESOURCES
DIVISION OF FLOOD MANAGEMENT

State-Federal Flood Operations Center Informational Sheet



October 2022
Flood Operations Section

Overview

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

River Forecasts

As major storm systems approach California, forecasters from the National Weather Service (NWS) and DWR forecast the location, quantity, and timing of expected precipitation and issue initial river forecasts. Once the storm arrives and runoff begins, forecasts are updated and issued as necessary to various federal, State, and local agencies. Reservoir operators adjust flood control releases as inflows change or downstream channels swell with runoff. If runoff is sufficient to raise streams to threatening levels, the NWS and DWR issue these forecasts as official public bulletins. Automated NWS and DWR computer systems disseminate bulletins and FOC personnel make high water notification calls to pre-identified agencies. Based on these river forecasts, emergency response agencies take action to protect the public from flooding. Depending on the severity of forecasted or actual flooding, DWR may declare a Flood Alert or Flood Mobilization to activate the FOC.

High Water Notifications

When streams are forecast to rise above certain pre-determined stages (water surface elevations) or flow rates, FOC personnel make high water notification calls to appropriate local flood system maintaining and emergency response agencies. Maintaining agencies are required to patrol their levees on a 24-hour basis as long as the water level is at or above monitor stage and until no threat remains to the levees.

Flood Alert

Forecasts of sustained storm patterns resulting in the potential for flooding, the need for coordinated field operations, or requests for technical support from local agencies may require the FOS Manager to declare a Flood Alert to officially activate the FOC under the Standardized Emergency Management System (SEMS). Flood management personnel from the Hydrology and Flood Operations Branch (HFO), the NWS Sacramento Forecast Office, and when applicable, the Media and Public Information Branch of the Public Affairs Office, expand their regular duties to meet these needs.

Flood Mobilization

Sustained severe storms and flooding may require additional DWR personnel, equipment, material, and financial resources for an extended period to respond to high water events and flood system threats. To meet the emergency response needs statewide, the DWR Director may, upon the recommendation of the DFM Manager, declare a Flood Mobilization authorizing DFM to use any DWR personnel in accordance with Water Resources Engineering Memorandum (WREM) 71.

Standardized Emergency Management System (SEMS)

SEMS was developed by the California Governor's Office of Emergency Services (Cal OES) to provide an organizational framework and common language for emergency response in California. SEMS is based on the Incident Command System (ICS), which was originally developed by fire agencies for managing wildfire response in the Western United States. SEMS improves mobilization, deployment, utilization, communication, tracking, and demobilization of needed mutual aid resources in an emergency. SEMS is organized into the following six functions at the FOC:

Management

The Management Section directs all FOC activities and is responsible for overall policy and coordination. This Section also ensures personnel safety, coordinates requests for support, and provides information to the public and media.

Operations

The Operations Section coordinates with Incident Command Posts (ICPs), Mobilization Centers, and other field operations units including flood fight, technical assistance, and emergency contracting work.

This Section coordinates the dispatch of joint DWR/U.S. Army Corps of Engineers technical teams to investigate potential flood threats. If a flood fight is needed, flood fight Incident Commanders may be dispatched. The California Department of Forestry and Fire Protection, also known as CAL FIRE, and the California Conservation Corps (CCC) provide most of the crews.

Planning

The Planning Section coordinates the Weather, Hydrology, and Operations Briefings, facilitates the FOC Action Planning Meetings, and prepares and distributes the FOC Action Plan. The Section prepares and updates Event, Incident, and Situation Reports, disseminates river forecasts and other river flood warning products in coordination with the NWS, makes high water notification calls, and answers calls from the public. In coordination with the PIO, the Section disseminates information to the news media and the general public. In coordination with other FOC sections, the Planning Section

is also responsible for developing and implementing the Demobilization Plan.

The Planning Section also establishes and maintains contact and coordination with activated EOCs, Regional Emergency Operations Centers, cooperating agencies, and DWR's emergency responders.

Intelligence

The Intelligence Section gathers, analyzes, and verifies hydrological, meteorological, and river forecast information from a variety of sources. This information is used to prepare and update internal FOC status boards, FOC reports, map displays, and provide technical support services to all FOC sections.

Logistics

The Logistics Section procures, tracks, and allocates required resources to support the FOC and other activities. Typical resource requests include personnel, flood fight materials and equipment, communications equipment, vehicles, facilities, lodging, food, sanitation needs, computers, office supplies, first aid supplies, and other resources needed to support emergency response activities. Resources may be needed to meet FOC operating requirements, to support flood fight and technical specialists dispatched to the field, and to support and coordinate the logistical needs of ICTs and ICPs. Activated Logistics Section positions will vary depending upon the FOC Director's need for support. The Logistics Section also assists the Planning Section with the FOC staffing Demobilization Plans.

Finance/
Administration

The Finance/Administration (F/A) Section in the FOC manages all financial, administrative, and cost analysis aspects of the emergency for the FOC, deployed ICTs, and staff in the field. Section staff work directly with DWR's Division of Fiscal Services (DFS), Human Resources Office (HRO), and Division of Business Services (DBS) to meet F/A Section objectives. This section also assists the Logistics and Operations sections with resource procurement as needed. Activities performed under this section usually continue to occur long after other resources for the event have demobilized.

Flood Emergency Management System (FEMS)

FEMS provides centralized databases to support the Department's SEMS-structured emergency operations and information/warning dissemination programs. DWR staff access FEMS through the internet via username and password.

The primary purpose of FEMS is to automate and archive SEMS/ICS and other emergency operations reporting and tracking processes used at the FOC, the Eureka Flood Center, and by other DWR Emergency Response and Incident Command Teams.

California Data Exchange Center (CDEC)

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 share scheduled 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. This 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 very useful and effective tool for monitoring current flood conditions.

Real-time data is collected from remote data stations via the State microwave radio network and the Geostationary Operational Environmental Satellite Server (GOES). Real-time data includes river stages, precipitation, snow water content, temperature, water quality, and full weather data.

CDEC operates a data exchange program with various federal and State agencies and other public agencies. This data exchange program involves the automated transfer and receipt of data and information via network connections.

Cooperating Agencies

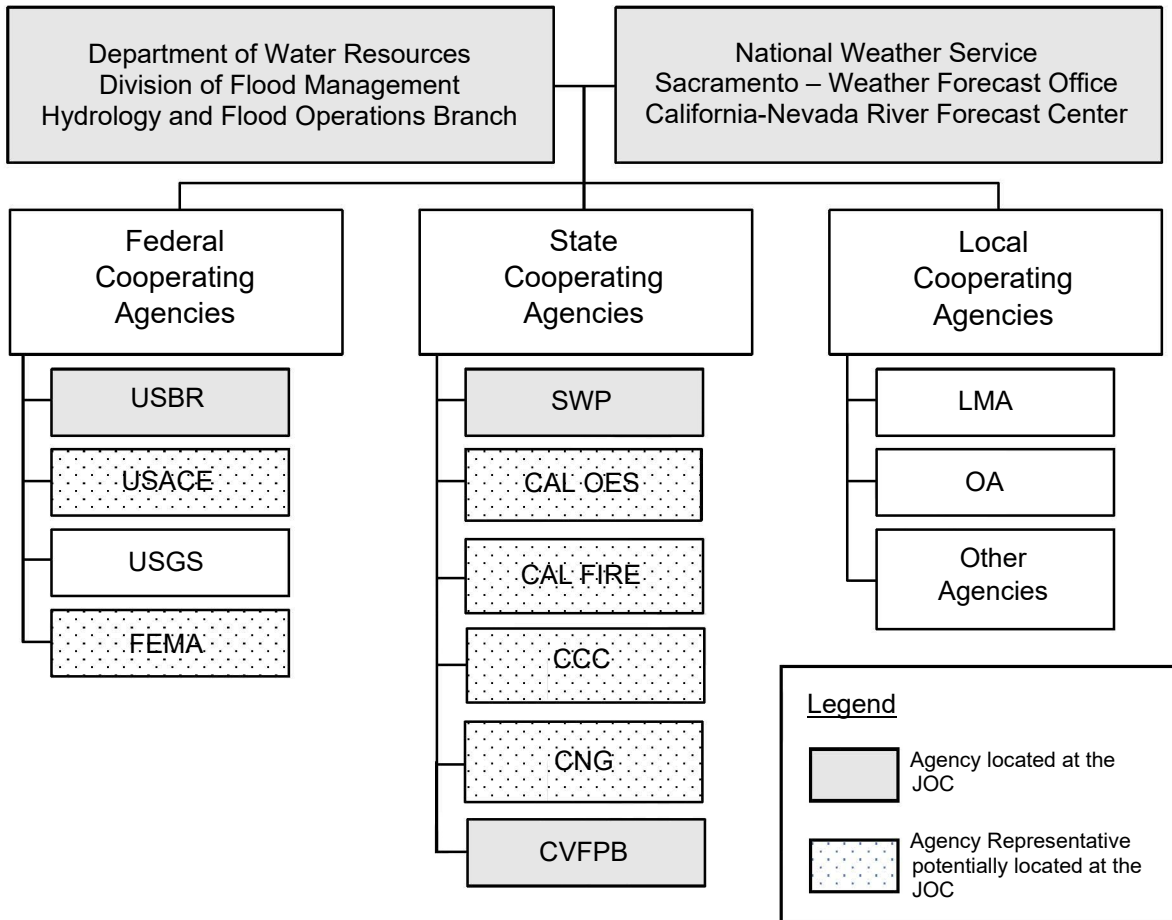
In addition to the NWS, many agencies cooperate with DWR during flood emergencies and may send representatives to work at the FOC. The following chart (see next page) provides an overview of federal, State, and local cooperating agencies with co-located agencies depicted by shaded boxes:

National Weather Service (NWS)

In addition to the coordination described above, the mission of the NWS Hydrologic Services Program is to:

1. Provide river and flood forecasts and warnings for the protection of lives and property.
2. Provide basic hydrologic forecast information for the nation's environmental and economic well-being. Eleven Weather Forecast Offices located in Medford (OR), Eureka, Reno, Las Vegas (NV), Sacramento, Monterey, Hanford, Oxnard, San Diego, Phoenix (AZ), and the California-Nevada River Forecast Center (CNRFC) accomplish this. Both the NWS Sacramento and CNRFC offices are co-located with the FOC at the Joint Operations Center.

Key Cooperating Agencies



<u>List of Acronyms</u>			
CAL FIRE	California Department of Forestry and Fire Protection	LMA	Local Maintaining Agency
Cal OES	California Governor's Office of Emergency Services	OA	Operational Area
CCC	California Conservation Corps	SWP	State Water Project
CNG	California National Guard	USACE	U.S. Army Corps of Engineers
CVFPB	Central Valley Flood Protection Board	USBR	U.S. Bureau of Reclamation
FEMA	Federal Emergency Management Agency	USGS	U.S. Geological Survey

Governor's Office of Emergency Services (Cal OES)

Cal OES coordinates the emergency activities of all State agencies. When requested by county Operational Areas, Cal OES will direct (through the assignment of mission tasks) those State agency resources necessary to support flood fight operations. Cal OES shall request, as directed by the Governor, a Presidential Emergency and/or a major disaster declaration. DWR representatives are dispatched, as needed, to Cal OES' Inland (Sacramento), Coastal (Fairfield), and Southern (Los Alamitos) Regions, while Cal OES representatives are assigned to the FOC.

California Department of Forestry and Fire Protection (CAL FIRE)

CAL FIRE provides a majority of the crews used in flood fight activities. CAL FIRE also assists Cal OES by setting up Mobilization Centers, mobile kitchens, and other facilities. CAL FIRE's expertise in ICS is a valuable resource during flood emergencies.

California Conservation Corps (CCC)

The CCC provides personnel for flood fight crews and levee patrols during emergencies. Standby crews are frequently stationed near sites where problems are anticipated due to storm activity, high river stages, high tides, or large reservoir releases.

California State Water Project (SWP)

DWR's State Water Project operations personnel participate in daily briefing and planning activities and coordinated reservoir operations with respect to Lake Oroville and other SWP facilities.

U.S. Army Corps of Engineers (USACE)

In instances when the nature of the disaster exceeds the capabilities of State and local interests, USACE may provide assistance under Public Law 84-99 to save human life, prevent immediate human suffering, or mitigate residential and commercial property damage. Assistance includes 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, upon 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 the State. USACE staff from various programs participate in daily briefings, planning activities, and coordinated reservoir operations.

U.S. Bureau of Reclamation (USBR)

Although USBR is primarily involved in the irrigation and hydropower purposes of its federal water projects, many USBR reservoirs also provide flood control storage. In the Central Valley these projects include Shasta Dam on the Sacramento River, Folsom Dam on the American

River, New Melones Dam on the Stanislaus River, and Friant Dam on the San Joaquin River. Central Valley operations personnel participate in daily briefings, planning activities, and coordinated reservoir operations.

U.S. Geologic Survey (USGS)

USGS participates in a flood emergency by measuring, processing, and sharing streamflow data. USGS cooperates with DWR and NWS in establishing and maintaining telemetered stream gages necessary for flood operations.

Local Maintaining Agencies (LMAs)

LMAs have primary authority for both maintenance of levees and flood fighting. Levee maintenance is provided by public levee districts, local government entities, private levee owners, and in some cases DWR. Collectively these agencies are referred to as LMAs. Some levees are not maintained by private or public agencies.

Operational Areas (OAs)

Representatives from OAs within the State may be assigned to the FOC when county streams and levees are threatened. An OA is usually a county and based upon a geographic boundary (i.e. Sacramento County being the geographic boundary). The FOC provides intelligence and planning support to OAs as needed throughout a flood emergency.

Contacts

When activated, the FOC provides a telephone bank of Flood Information Specialists to answer flood-related questions, assist with high water notification calls, and direct calls to other appropriate personnel. Media briefings and interviews are coordinated by Information Officers from the Public Affairs Office who augment DFM staff. This information is available on request to other agencies, the media, and the public by telephone or via CDEC.

(Additional contact information on next page.)

State-Federal Flood Operations Center

Business line, 24-hour (916) 574-2619
Shared Email Address flood_center@water.ca.gov

Hydrology and Flood Operations Branch

Jeremy Hill, Hydrology and Flood Operations Branch Manager..... (916) 574-2611
Elizabeth Bryson, Flood Operations Section Manager..... (916) 574-1358
Lance Ablang, Flood Operations Center Manager..... (916) 574-2643
Flood Operations Center Staff (916) 574-2619
Maksim Khashchuk, Regional Flood Preparedness Unit Manager (916) 574-1249
Vacant, Statewide Flood Response Unit Manager Vacant
David Rizzardo, Hydrology Section Manager (916) 574-2612
Bibek Joshi, River Forecasting Unit Manager.....(916) 574-2617
Wade Wylie, Flood Project Inspection & Assessment Section Manager.....(916) 574-2353
Sterling York, Flood Project Inspection Unit A Manager.....(916) 574-2326
Michael Engelmann, Flood Project Inspection Unit B Manager.....(916) 574-1453
Laurence Sanati, Operations Support Section Manager.....(916) 574-0449
Vacant, CDEC Manager Vacant
Vacant, Flood System Analysis Unit Manager Vacant
Cale Nasca, Reservoir Coordinated Operations Unit Manager (916) 574-0710
CDEC Help Desk.....(916) 574-1777

DWR Websites

California Data Exchange Center (CDEC)
 Intranet <http://cdec4gov.water.ca.gov>
 Public <http://cdec.water.ca.gov>
Flood Emergency Management System (FEMS) <http://fems.water.ca.gov>
Department of Water Resources..... <http://www.water.ca.gov>
Division of Flood Management <https://water.ca.gov/Programs/Flood-Management>
FERIX <http://ferix.water.ca.gov>
Weather Briefings <http://cdec4gov.water.ca.gov/wxav.html>

National Weather Service (Sacramento)

NWS Weather Forecast Office (916) 979-3051
NWS Weather Forecast Office website www.wrh.noaa.gov/sto
Courtney Carpenter, Warning Coordination Meteorologist (916) 979-3041

NWS California Nevada River Forecast Center (CNRFC)

CNRFC Office (916) 979-3056
CNRFC Website..... <https://www.cnrfc.noaa.gov/>
CNRFC Email cnrfc.webmaster@noaa.gov

Recorded River and Reservoir Conditions Menu

(800) 952-5530 (toll-free, 24-hour)

(916) 574-0954 (24-hour)

Main Menu

Press 0 to transfer to staff (answering service after hours)

Press 4 for recorded river & reservoir conditions menu

River & Reservoir Conditions Menu

Press 2 for Sacramento Valley and Northern Delta

- Press 1 for Upper Sacramento River to Tisdale Weir
- Press 2 for Lower Sacramento River (Fremont Weir to Rio Vista) Feather, Yuba, American Rivers, tributaries, Yolo Bypass

Press 3 for San Joaquin River Basin

Press 4 for Russian and Napa Rivers

Press 5 for North Coastal Rivers

Press 6 for Central Coast Rivers

Press 7 for Tulare Lake Basin