

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

State-Federal Flood Operations Center Informational Sheet



June 2016
Flood Operations Branch

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 Branch (FOB). 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 state-wide.

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 increase 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 selected agencies. Depending on the severity of forecasted or actual flooding, DWR may declare a Flood Alert or Flood Mobilization.

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 FOB Chief 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 Office (HAFOO), 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 State-wide, the DWR Director may, upon the recommendation of the DFM Chief, declare a Flood Mobilization. A Flood Mobilization declaration authorizes DFM to use any DWR personnel in accordance with WREM 71.

Standardized Emergency Management System (SEMS)

SEMS was developed by the Governor's Office of Emergency Services (Cal OES) to provide an organizational framework and common "language" for emergency response in California. SEMS was 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 five functions at the FOC:

<u>Management</u>	The Management Section directs all FOC activities and is responsible for overall policy and coordination. This Section also coordinates requests for emergency assistance, personnel safety, and provides public information support.
<u>Operations</u>	<p>The Operations Section coordinates with Incident Command Posts, Mobilization Centers, and other field operations units including flood fight, technical assistance, and emergency repairs.</p> <p>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 provide a majority of the crews.</p>
<u>Planning</u>	The Planning Section collects, evaluates, documents, and disseminates flood emergency information, and prepares situation reports, incident reports, and action plans. This Section also provides primary interface with NWS weather and river forecasting programs and provides Decision Support System and Geographic Information System support.

Flood emergency information includes river and weather conditions and forecasts, reservoir operations, situation reports, levee and other flood-related incident reports, and maps.

Logistics

The Logistics Section provides services, personnel, equipment and facilities in support of all operations, and tracks personnel and equipment resources.

Finance &
Administration

The Finance & Administration Section is responsible for overall accounting, time-keeping, recovery, and FEMA claims.

Flood Emergency Management System (FEMS)

FEMS provides centralized databases to support the Department's SEMS-structured emergency operations and information/warning dissemination programs. FEMS is accessed through a DWR Intranet website developed and maintained by the FOB.

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 schedule reservoir releases, water suppliers to anticipate water availability, and flood emergency personnel to prepare and disseminate flood hydrology data and reports.

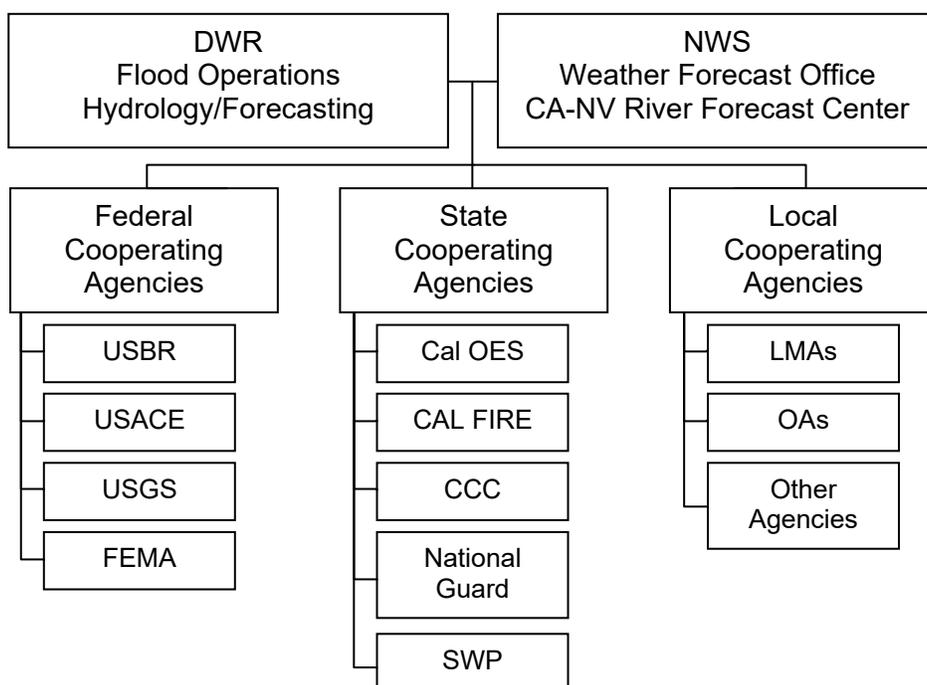
CDEC formats and manages data for public use via the World Wide Web. This extensive website is accessible to flood emergency personnel, private and public agencies, news media, and the general public. Valuable information is created from the data and presented in a variety of formats including maps, 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 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 some send representatives to work at the FOC. The following chart below provides an overview of federal, State, and local cooperating agencies with co-located agencies depicted by shaded boxes:



National Weather Service (NWS)

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 and Las Vegas (NV), Sacramento, Monterey, Hanford, Oxnard, San Diego, Phoenix (AZ), and the California-Nevada River Forecast Center accomplish this, both Sacramento offices are co-located with the FOC at the Joint Operations Center.

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 task numbers) 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 (Oakland), 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 the 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)

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, 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. 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. The USACE also has jurisdiction over storage capacity seasonally reserved for flood control on most major reservoirs throughout the State.

U.S. Bureau of Reclamation (USBR)

Although the 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)

The USGS participates in a flood emergency by measuring, processing, and sharing streamflow data. The 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

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.

State-Federal Flood Operations Center

Toll-free, 24-hr (800) 952-5530
Business line, 24-hour (916) 574-2619
TDD service (800) 900-3582
Shared Email Address flood_center@water.ca.gov

Hydrology and Flood Operations Office

Jon Ericson, Hydrology and Flood Operations Office Chief..... (916) 574-2613
John Paasch, Flood Operations Branch Chief..... (916) 574-2611
Rick Burnett, Flood Fight Specialist (916) 574-1203
Elizabeth Bryson, Flood Operations Center Section Chief (916) 574-1358
Flood Operations Center Staff (916) 574-2619
Jeremy Hill, Flood System Analysis Section Chief (916) 574-0353
Kristin Richmond, Regional Emergency Preparedness Section Chief..... (916) 574-2167
Delia McGrath, Response and Security Section Chief (916) 574-1211
Sudhakar Talanki, Hydrology Branch Chief (916) 574-2612
Mitchel Russo, River Forecasting Section Chief..... (916) 574-2617
Boone Lek, Reservoir Coordinated Operations Section Chief..... (916) 574-2633
Don Rasmussen, Flood Project Integrity and Inspection Branch Chief (916) 574-1730
David Parker, CDEC Chief..... (916) 574-2630
CDEC Help Desk (916) 574-1777
William Croyle, DWR Emergency Preparedness and Security Manager..... (916) 654-6135

DWR Websites

California Data Exchange Center (CDEC)
 For governmental agencies..... <http://cdec4gov.water.ca.gov>
 Public access <http://cdec.water.ca.gov>
Flood Emergency Management System (FEMS) <http://fems.water.ca.gov>
Department of Water Resources www.water.ca.gov
Division of Flood Management www.water.ca.gov/floodmgmt
FERIX <http://ferix.water.ca.gov>
Weather Briefings <http://www.water.ca.gov/floodmgmt/hafoo/fob/focs/weatherbriefing.cfm>

National Weather Service (Sacramento)

NWS Weather Forecast Office..... (916) 979-3051
NWS Weather Forecast Office website www.wrh.noaa.gov/sto
Michelle Mead, Warning Coordination Meteorologist(916) 979-3041 ext. 223
Cindy Matthews, Senior Service Hydrologist.....(916) 979-3041, ext. 334

NWS California Nevada River Forecast Center (CNRFC)

CNRFC Office(916) 979-3056
CNRFC Website..... 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