

Flood Contingency Options

The flood fight strategy will be to implement Lower San Joaquin Levee District's Flood Safety Plan and prepare to implement potential flood contingency options.

In general, the L.S.J.L.D. monitors releases from Pine Flat, Friant, Hidden, Buchanan, and the Merced Stream Group (Mariposa, Bear Creek, and Merced Reservoirs). These structures include the San Joaquin River, Chowchilla Bypass, or Eastside Bypass so that they are not overwhelmed. See Flood Contingency Map for detailed capacities.

This system is vulnerable to through and under seepage.

Actions

- Establish Patrols and emergency facilities in accordance with District Flood Safety Plan.
- Establish communications with outside agencies in accordance District Flood Safety Plan.
- Plan to operate diversion or control structures, as appropriate, to ensure conveyance facilities within the Chowchilla Canal Bypass, East Side Bypass, Mariposa Bypass, are not overwhelmed.
- Monitor known location of through and under seepage.
- Confirm access points and develop a movement plan for heavy equipment and trucks to potential problem locations on levees or ends of any potential levee breach.
- Review plans for protecting respective District field command posts and critical infrastructure within protected area.

Levee Overtop on District Levees

The flood fight strategy will be to armor ends of breach as soon as possible to prevent expansion of breach width, monitor flood flows to attempt to minimize damage to existing drainage systems and critical infrastructure, and protect interior slopes of impacted levees.

Actions

- Armor ends of breach and repair breach as possible.
- Initiate patrols to monitor extension of flood waters to identify opportunities to protect property or contain impounded waters.
- Notify Madera OES and Madera County Sheriff's Department to consider evacuation.
- Protect interior slopes of levees impacted by impounded flood waters by laying vegetation.
- Review and prepare to initiate dewatering plan as appropriate.

Tactical Facilities

Delivery Points	Location	Coordinates	Symbol
MADP-01	Chowchilla Canal Road	36° 49' 22" N 120° 18' 29" W	DP
MADP-02	Avenue 7	36° 51' 08" N 120° 18' 47" W	DP
MADP-03	Firebaugh Boulevard	36° 52' 19" N 120° 18' 14" W	DP
MADP-04	12004 Avenue 14	36° 57' 09" N 120° 19' 40" W	DP
MADP-05	Road 9	36° 58' 21" N 120° 22' 54" W	DP
MADP-06	Avenue 18 1/2	37° 01' 04" N 120° 26' 03" W	DP
MADP-07	Road 4	37° 01' 59" N 120° 28' 17" W	DP
MADP-08	CA Hwy 152	37° 04' 18" N 120° 30' 44" W	DP
MADP-09	West Washington Road	37° 06' 54" N 120° 33' 41" W	DP
Helibase			H
MAHB-01	37164 West Nees Avenue	36° 51' 04" N 120° 28' 06" W	H
Logistics Base			B
MALB-01	Madera County	36° 46' 35" N 120° 17' 15" W	B
Supply Staging Area			S
MASA-01	Fresno County	36° 46' 09" N 120° 17' 12" W	S

Communications Plan

Field Command Post

L.S.J.L.D. Field Command Post: 11704 Henry Miller Ave., Dos Palos, CA 95202

Communications Equipment

Lower San Joaquin Levee District (L.S.J.L.D.) Staff equipped with cellular telephones, landline telephones, radios and internet capacity at offices.

Internal Communication

Cell phones will be the primary means of communications between staff. Cellular phones will be the means of communications with private vendors or contractors acquired by LMA as assist with emergency operations.

Communications with Outside Jurisdictions

Communications will be by cellular phone, including texting, or internet email, unless District is issued radios by another jurisdiction or through a request to the appropriate County EOC. Communication with Madera County, CA EOC will be by cellular telephones, internet email, and physical participation in management meetings. Communication with DWR State and Federal Flood Operations Center will be by cellular telephones (including text messaging), internet email, or participation in Madera United Flood Fight Command.

LSJLD Flood Fight History

The L.S.J.L.D. is responsible for monitoring the leveed portion of the San Joaquin River, the Chowchilla Canal Bypass and its control structures, the East Side Bypass, Mariposa Bypass. The L.S.J.L.D. has historically monitored releases from Pine Flat, Millerton Reservoir (Plant Dam), Hensley Reservoir (Hidden Dam), Eastman Reservoir (Buchanan Dam), and the Merced Stream Group (Mariposa, Bear Creek, and Merced Reservoirs). The L.S.J.L.D. also uses a series of control structures to prevent the system from being overwhelmed. These structures include the San Joaquin River Control Structure, the Chowchilla Canal Bypass Control Structure, East Side Bypass Control Structures, Ash Slough Drop Structures, San Joaquin Control Structure, Eastside Bypass Control Structure, Mariposa Bypass Control Structure, and Mariposa Bypass Drop Structures.

Over time, the area between the Eastside Bypass Structure and Ash Slough Drop structures has been vulnerable to subsidence, and therefore induced seepage issues. The L.S.J.L.D. monitors and controls seepage via traditional flood fight methods, as appropriate.

The leveed portion of the San Joaquin River is also vulnerable to seepage in areas of historic underlying overflows. In 1997, 7 breaks were reported due to excessive flows. Although the leveed portion started with a design capacity of 8,000 cfs, historic and observations show that water reaches the top of the levee at 4,000 cfs, and may begin to experience seepage if flows increase or are sustained for more than a week.

Evacuation Plan

Responsible Agencies

If evacuation is needed, all coordination actions will be taken by the County that would be impacted. Fresno, Madera, and Merced counties would lead the evacuation. Coordination Agencies include:

- Madera County's Sheriff's Office of Emergency Services
- Fresno County OES
- Merced County OES

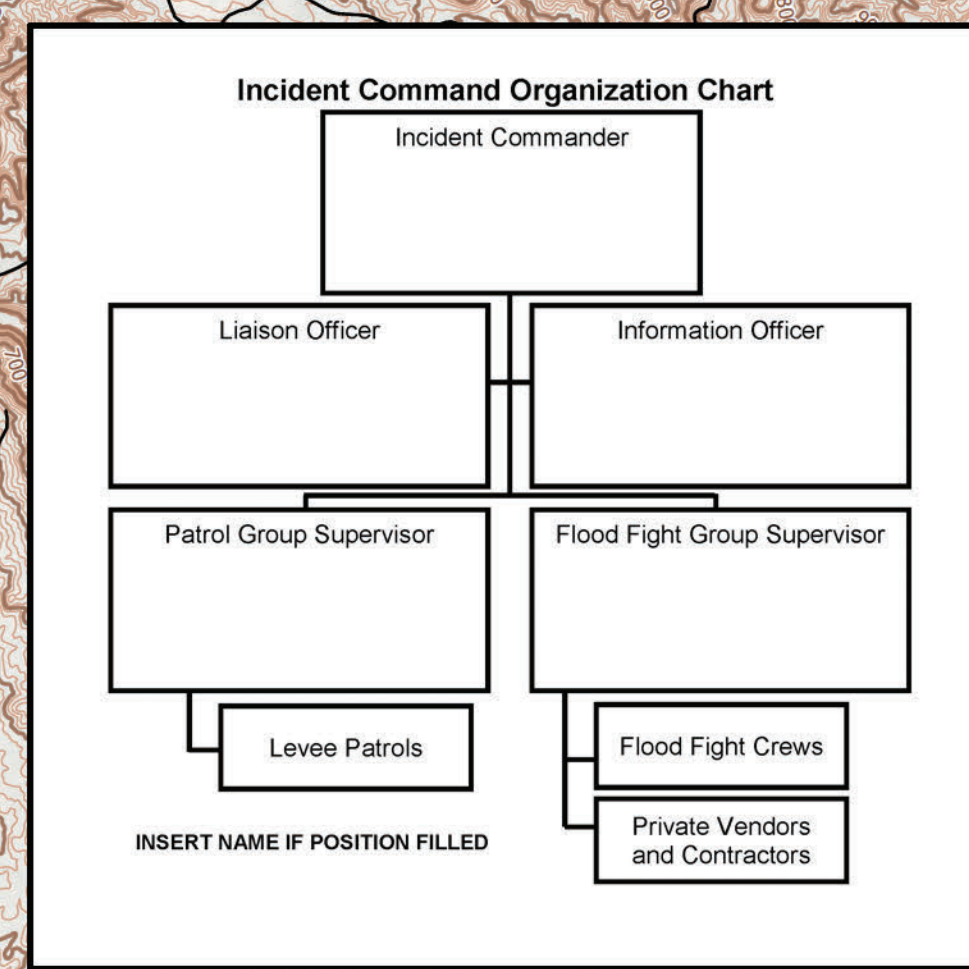
Public Safety Agencies Evacuation Plan

Public Safety Agency evacuation plans and procedures available at Madera County OES, Fresno County OES and Madera County OES.

Plans for conducting warning, evacuation and rescue within District maintained by responsible agencies. Implementation may be coordinated with partner agencies through Madera County, Fresno County, and Merced County.

LSJLD Evacuation

The L.S.J.L.D. will monitor the flood channel water surface elevations and levee foundation seepage and/or through-seepage for problems. This information will be communicated to the appropriate County when it is determined the County facilities (roads, bridges, etc.) will be impacted.



0 10,000 20,000 30,000 40,000 Feet

1 inch = 2 miles

Time/Date of Start of Incident

Map Version

Legend

- 100 Year Flood Elevation
- Camp
- Logistics Base
- Delivery Point
- Supply Staging Area
- Water Rescue Launch
- Helibase
- Helipost
- Command Post
- Historic Seepage
- Historic Break
- Planned Relief Cut
- Historic Erosion
- Slope Stability
- Historic Levee Event Limit
- Historic Problem Area
- Levee Access
- Levee Gate
- Dam
- Levee
- Levee Critical Section
- Dryland Levee
- Dryland Levee Critical Section
- Levee Segment (Color varies by LMA)
- Patrol Sector
- L.C. EL+10 Levee Crown Elevation
- Spot Elevation
- Levee Mile-Ruler Mile-Station
- Pump Station - Rural
- Pump Station - Municipal Storm
- Pump Station - Site for Emergency
- Flood Control Structure ("Action Required", "No Action Required")
- Weir
- Structure (A-Agricultural, R-Residence, H-Hospital, S-School, F-Fire Station, P-Police Station)
- Gas Well
- Water Well
- Sanitary Sewer Lines
- Storm Drain Lines
- Water Lines
- Underground Lines
- Underground Fiber Optics
- Overhead Transmission Line
- Elevation Contour
- County Border
- District Boundary
- Evacuation Route
- City Limits
- Waterways/Channels
- CDEC Stations
- Bridge

Response Activation Triggers

Stage	CDEC Gauge	Flow Rate (cfs)	Action
I	S.J.P. San Joaquin River Downstream of Friant Dam	4,000 cfs & forecast to increase	MONITOR
II	S.J.P. San Joaquin River Downstream of Friant Dam	5,000 cfs & forecast to increase	FLOOD
III	S.J.P. San Joaquin River Downstream of Friant Dam	7,000 cfs & forecast to increase	DANGER

*See Emergency Operations Plan for Additional Gages

Levee Patrol Plan

Patrol Group Supervisor: Lower San Joaquin Levee District, L.S.J.L.D. Director

Patrol Group Staging Areas: Lower San Joaquin Levee District, 11704 Henry Miller Ave., Dos Palos, CA

MALB-01: At the San Joaquin River/Chowchilla Bypass Siftation Control Structures

Organization

There are eight levee patrol sectors. The L.S.J.L.D. patrols both banks of their facilities. LMA patrol staff will receive a basic Emergency Levee Worker Course accessed via www.madefloodoperations.com if needed which includes DWR Levee Threat Monitoring and Marking Protocols.

A two-person patrol with LMA authorized vehicle will be organized for each designated patrol sector per District Standard Operating Procedures (SOP). Patrols will pick up equipment, receive pre-shift briefing and post-shift debriefing at their LMA Patrol Group Staging Area.

All patrols will use cell phones for primary communications with Patrol Group Supervisor. Patrol and vehicle equipment will be per SOP.

Patrol Plan: Routes are established to where a two-person patrol unit will traverse the route within 60 minutes. There are EIGHT patrol Sectors. See Figure for locations.

Stage I Monitor: Initiate patrols to 3 times per day per system

Stage II Alert: Initiate patrols to 6 times per day per system

Stage III Danger: Increase patrols to 24 hours per day per system

Levee and Staging Protocol - Per DWR Levee Threat Monitoring Guidelines

EMERGENCY CONTACT INFORMATION

Agency	Phone Number
Lower San Joaquin Levee District	(209) 387-4545
Madera County Sheriff's OES	(559) 675-7770
Madera County Sheriff	(559) 675-7769
Merced County OES	(209) 385-7548
Merced County Sheriff	(209) 385-7444
Fresno County OES	(559) 600-4065
Fresno County Sheriff	(559) 488-3111
CHP (Los Banos)	(209) 826-3811
California Office of Emergency Services (CalOES)	(916) 657-9903
DWR - Sutter Maintenance Yard	(930) 755-0071
DWR - Flood Ops Center (24-hr)	(916) 574-2619

*SEE EOP ATTACHMENT FOR FULL CONTACT LIST

Dewatering Plan

A dewatering (floodwater removal plan) is used in the event of highwater so that pumps and drainage facilities can resume function. Dewatering is not the responsibility of the L.S.J.L.D. but the L.S.J.L.D. may assist to the extent feasible.

General Dewatering Situation

Floodwaters will on the east side of the bypasses, will generally follow the topographic gradient, moving west and north. General dewatering strategy will be to facilitate movement of flood waters back into Eastside Bypass or the Chowchilla Bypass via existing structures. Emergency pumping stations will be placed where needed to facilitate the movement of pooled flood water into the normal drainage system.

Dewatering Strategy

Once dewatering is initiated or flow in active channels falls sufficiently, LMA will identify areas of significant pooled flood waters that would require emergency pumping to move water into normal drainage system. Pre-event drainage systems would be restored by the owning agency.

Emergency Pumping Stations

The calculations below, determined by DWR Logistics, provides guidelines to determine the total number of days required to pump out the inundated area.

NOTE: This calculation assumes no additional water enters the system and the pumps in operation remain constant.

- Start with the known area (acres), and multiply Area by average depth (feet). Area (acres) x average depth (ft) = Volume (cu-ft)
- Multiply the Volume (cu-ft) of water by 43.56 to convert units (cubic feet, ft³).
- Multiply the value (cubic feet, ft³) by 7.48 to convert to gallons (gal).
- Divide the value in gallons by the total pumping capacity (gallons, gpm). This produces the value of total time needed to dewater the site (minutes).
- Divide the total time to dewater (minutes) by 1,440 to convert units to days. This produces the total number of days required to pump out the area.