

City of Palo Alto **Severe Storm & Flood Plan**

(Annex C to the Emergency
Operations Plan)



CITY OF
**PALO
ALTO**

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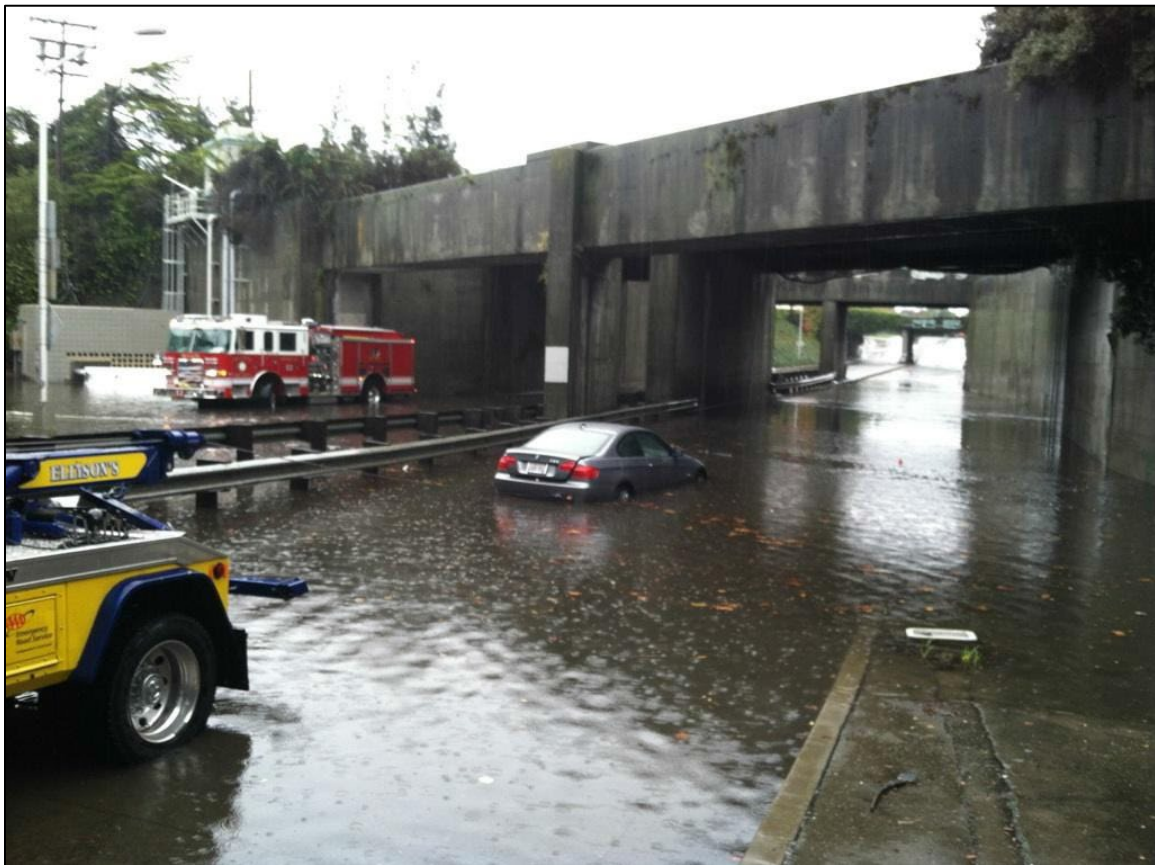


Figure 1: Photo: Dec. 2, 2012: Car Stuck in Flood under Oregon/Alma Underpass

1. Introduction

This Plan establishes mobilization procedures for maximum utilization of all resources during a winter storm or flood where disruption of transportation, utilities or other services or infrastructure is anticipated or occurs. This includes other "severe weather" situations. This Plan provides operational details (pre-plan) and guidance for EOC staff, Departments, and the general public. This Plan shall not constrain the freedom of the Incident Commander (IC) or others when dealing with some of the scenarios referenced herein.

Maintenance of Plan:

This Plan is maintained by the Palo Alto Office of Emergency Services (OES). Prior to every winter season, OES will review this Plan with the Public Works Department, the Utilities Department, the Community Services Department, Public Safety (Police, OES, Fire), and others, as needed.

This is a public plan. References to confidential or restricted information contained in other sources are tagged with "[CONFIDENTIAL DOCUMENT]".

Purpose of Plan:

This Plan updates the City of Palo Alto Emergency Operations Plan (EOP) Annex J: Flooding/Dam Failure/Severe Winter Storm and supplements other protocols and related documents of the City and its departments (such as the PAPD Policy Manual). Terms of art ("disaster") and certain legal and procedural definitions are found in the Emergency Operations Plan (EOP) and not repeated in this Plan.

According to the State of California Office of Emergency Services (Cal OES): "Floods are the second most frequent cause of disaster declarations in California (after wildfires) and account for the second highest combined losses (after earthquakes)."¹

As described in the LHMP² and THIRA³, portions of Palo Alto reside in a FEMA designated Flood Zone. In addition, several creeks run through Palo Alto which are susceptible to flooding primarily during winter storm events. Palo Alto last had a significant flood in 1998 when the San Francisquito Creek

¹ California Catastrophic Incident Base Plan (Sept. 2008), available on: <https://www.caloes.ca.gov/PlanningPreparednessSite/Documents/CA%20Catastrophic%20Incident%20Base%20Plan%20Conops.pdf>

² <https://emergencymanagement.sccgov.org/partners>

³ www.cityofpaloalto.org/thira

overtopped its banks during a severe weather event, causing serious damage to the Eastern and Southern portions of the City and outside the City Limits.

This Plan presents general information and guidelines for the following stakeholder categories.

City of Palo Alto Staff: Staff members as well as departments or work groups are responsible for knowing and updating/creating their own plans, including Department Emergency Plans (DEPs). See also "Public Works /Public Services Procedures and Guidelines for Responding to Storm Drainage System Emergencies" [CONFIDENTIAL DOCUMENT].

Other Agencies: A further goal of this Plan is to pre-plan for coordination with neighboring jurisdictions⁴, non-governmental organizations (Red Cross), community volunteers, the private sector, and others.

General Public: The public plays a central role in the preparedness for severe storms and floods. The public includes residents, businesses, non-governmental agencies, schools, faith-based organizations and the like. Flood prevention and preparedness information for the general public is posted on the City website: www.cityofpaloalto.org/storms

Individuals with Disabilities and those with Access and Functional Needs: Individuals in this category must also prepare themselves for the hazards posed by a severe storm or flood, especially if they are located within a FEMA designated flood zone. Areas of particular concern in addressing the needs of individuals with disabilities or access and functional needs include:

- Accessible communications: Ensuring written and oral emergency communications and other information provided are accessible to people with disabilities and to those who speak languages other than English.
- Backup power for assistive devices: Ensuring that people who depend on electric- or battery-powered medical devices or other technology for life support and independence have sufficient access to backup power.
- Evacuation and transportation: Ensuring that evacuation and transportation plans integrate accessible transportation providers during the planning process and when moving people with mobility impairments and

⁴ The Santa Clara Valley Water District is the flood control agency for Santa Clara County.

those with transportation disadvantages. Transportation planning considerations should include staging, embarkation points, transportation centers, evacuee location, and care and shelter.

- **Care and Shelter:** Ensuring that evacuation sites, shelters, community resource centers, cooling sites, and other facilities established during the event are accessible to people with disabilities and access and functional needs.

The Emergency Services Volunteers (ESV) Program⁵ provides an opportunity for community members to become involved as supplemental resources including during floods and storms.

Adoption:

This Plan is adopted by the Director of Emergency Services in accordance with the City of Palo Alto Municipal Code 2.12.050 as of the date on the cover page.

⁵ www.cityofpaloalto.org/emergencyvolunteers

References.

City of Palo Alto Municipal Code.

<https://codelibrary.amlegal.com/codes/paloalto/latest/overview>

City of Palo Alto Emergency Operations Plan

https://www.cityofpaloalto.org/files/assets/public/oes/plans/city_of_palo_alto_eop.pdf

Santa Clara County Local Hazard Mitigation Plan, Palo Alto Annex.

https://www.cityofpaloalto.org/files/assets/public/oes/lhmap/paloalto_separateannex_march2017.pdf

City of Palo Alto Threats and Hazards Identification and Risk Assessment Report. <http://www.cityofpaloalto.org/thira>

“Legal Guidelines for Controlling Movement of People and Property”, from Cal OES.

[https://www.caloes.ca.gov/PlanningPreparednessSite/Documents/Legal%20Guidelines%20for%20Controlling%20Movement%20People%20Property%20\(FEAT%20doc\).pdf](https://www.caloes.ca.gov/PlanningPreparednessSite/Documents/Legal%20Guidelines%20for%20Controlling%20Movement%20People%20Property%20(FEAT%20doc).pdf)

State of California Guidelines for Coordinating Flood Emergency Operations.

[https://www.caloes.ca.gov/PlanningPreparednessSite/Documents/01%20FEAT%20GuidelinesforCoordinatingFloodEmergencyOperations\(FEAT%20doc\).pdf](https://www.caloes.ca.gov/PlanningPreparednessSite/Documents/01%20FEAT%20GuidelinesforCoordinatingFloodEmergencyOperations(FEAT%20doc).pdf)

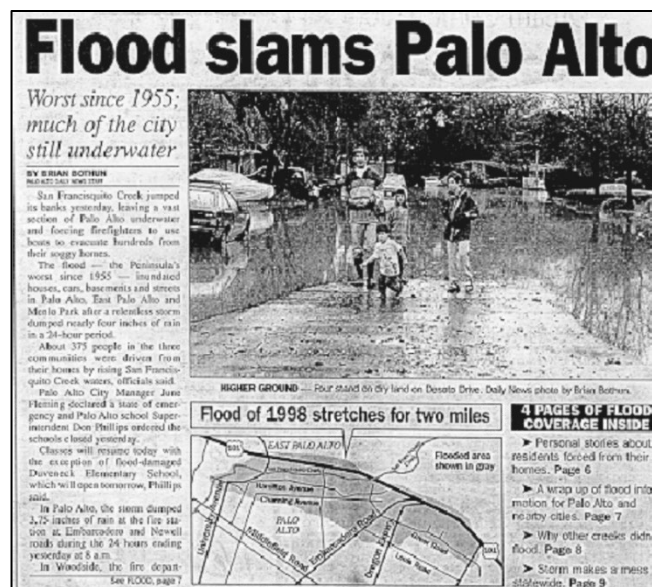


Figure 2: Palo Alto Daily News. February 4th, 1998

2. Objectives.

The standing objectives are, consistent with the EOP:

- To minimize injury and loss of life
- Minimize property damage and adverse economic impact
- Minimize adverse environmental impact.
- Provide for the immediate needs of disaster victims

As part of the action planning process, consider objectives that are weather/flood-related, such as:

- Protect human life: notification, evacuation, sheltering
- Maintain key City facilities and infrastructure: communications, utilities, pumping stations
- Transportation: road closures, loss of traffic signals, debris removal
- Public Information: KZSU, phone hotlines [Public Emergency Hotline is (650) 329-2420; others for Utilities, etc.], Web updates, PIOs

3. Concept of Operations.

A. Prevention & Preparation Phase:

Generally, the public (and staff for City facilities, as applicable) should:

- Keep storm drains and gutters free of leaves and debris. Assist your neighbors, especially those who are physically limited, etc.
- Do not dump in storm drains and keep creeks clean. It is illegal to dump things into a creek or storm drain. Drains in your street flow directly to local creeks. Creeks are a valuable natural resource and habitat for local endangered species.
- Prepare for the possibility of extended power outages (batteries, flashlights, etc.)
- Obtain and stage sandbags, if needed, well before the storm
 - Renters, homeowners and business owners can purchase flood insurance from the National Flood Insurance Program. (Normal homeowners insurance coverage does not cover flooding.) It can take 30 to 60 days for new policies to take effect. Call 800-427-4661.
 - Download the Wet Weather Checklist from www.valleywater.org.

- Inspect and update personal emergency supplies and family emergency plan.

City Departments have responsibilities to prepare each year for winter storm season. All departments should update key contact rosters, acquire supplies and materials that may be needed during an incident, conduct training and exercises, conduct public messaging. Certain departments also promote flood loss mitigation and preparedness measures through public outreach mediums. See Section 4: Organization and Responsibilities for specific departmental tasks.

The City has three sandbag stations in Palo Alto:

- Airport: 1925 Embarcadero Rd.: supported by the Santa Clara Valley Water District (SCWVD). This location has filled sandbags the SCWVD delivers on/about 1 November each year. The general public may contact Santa Clara Valley Water District at 408-265-2600 with questions or for information.
- Mitchell Park: 600 E. Meadow, behind the Little League baseball field. This is a "Do it yourself station", no shovels are provided. The general public may contact the City of Palo Alto Public Works Department at 650-496-6974.
- Rinconada Park. This is a "Do it yourself station", no shovels are provided. Tennis Court Parking Lot at the corner of Hopkins Avenue at Newell Road. The general public may contact the City of Palo Alto Public Works Department at 650-496-6974.

Other local sandbag sites in both Santa Clara County and San Mateo County: See www.sfcjpa.org

The Public Works Department may establish other, temporary sand bag locations depending on the local situation. However, once response operations begin, maintaining sandbag stations will be a secondary priority.

B. Notification and Activation (Mobilization)

This Plan does not require formal activation of the Emergency Operations Center (EOC). However, the EOC facility/support systems and members of the EOC staff may function in a "hybrid" capacity to support an Incident or Unified Command structure.

Communications (9-1-1 Dispatch) is provided with a "Winter Storm Procedures & Call Out List" [CONFIDENTIAL DOCUMENT] notification roster, that details protocols for alerting key staff, including the City Manager.

Generally, at a verified 50% level on any City Creek Monitor⁶, the Palo Alto Police Department's 9-1-1 Communications Center will notify certain key staff to begin the monitoring process. At 70%, more staff are notified.

Further, the San Francisquito Creek is known to be "flashy" - meaning levels can rapidly change. For example, on December 23, 2012, levels went from 50% to past 70% in about 90 minutes.

In many cases, creek monitor levels can exceed 70% and yet present no need to notify the public or take other action.

Therefore: The opening of the EOC and the activation level thereof are dependent upon the judgment of the Director of Emergency Services (OES Chief), the City Manager, and/or Incident Commander, considering storm forecasts, tide levels, ground saturation, creek level trending, and other factors.

There are hydrologic modeling tools from the USGS, Valley Water and the SFC JPA that our subject matter experts will use to inform our local flood assessments.

The ambiguity and sensor limitations of the current creek monitoring system, combined with staffing levels that may be altered during emergent situations that may occur on holidays or after-hours, may create strictures on the timeliness of notification.

There are, generally, four categories of notification:

- Key City Staff (internal)
- Partner Organizations

⁶ Palo Alto area Creek Monitors are on the web:
www.cityofpaloalto.org/gov/depts/pwd/creek_monitor/creek_monitor_only.asp

There is also a webcam on San Francisquito Creek at West Bayshore Road:
<https://www.cityofpaloalto.org/Departments/Public-Works/Engineering-Services/Creek-Monitor-Cam>

The USGS Gage at SFC near the Stanford University campus is:
waterdata.usgs.gov/nwis/uv/?site_no=11164500

- General Public
- Emergency Services Volunteers

To facilitate early and efficient communication, especially during the initial phases of an event, and especially if the EOC may be activated, staff will consider "heads up" notifications or liaisons to the following (contact info is listed in the EOC Roster) [CONFIDENTIAL DOCUMENT]:

- City of Palo Alto EOC Roster (Key Staff) [CONFIDENTIAL DOCUMENT]: Follow notification protocols. *Note: The City Manager's Office (CMO) is responsible for notification of and communications with City Council Members.*
- Santa Clara County: 1) County Communications and 2) Santa Clara Co. OES/EOC [County "Operational Area" (Op Area)]. Provide them with status updates, as appropriate.
- Emergency Services Volunteers (ESVs): Per OES protocols.
- Stanford University: The University, Hospitals & Clinics, SLAC, and other Stanford-affiliated entities.
- Palo Alto Unified School District (PAUSD): Coordination is required for public messaging (PIO), closures, etc.
- Neighboring Jurisdictions: San Mateo County Sheriff (OES), City of East Palo Alto, City of Menlo Park, Menlo Park Fire Protection District, Town of Atherton, City of Mountain View, Town of Los Altos, Moffett Field, Sunnyvale, and others.
- San Francisquito Creek Joint Powers Authority: The SFC JPA is an existing mechanism to coordinate plans among jurisdictions.
- Santa Clara Valley Water District: Local creeks (San Francisquito, Matadero, Barron, and Adobe) are managed by this district for flood control purposes. PW staff have liaisons with SCVWD.
- Residents, Businesses, and Community Partners: The Director of Emergency Services with consultation from the PIO shall also consider activation of Emergency Public Information systems such as AlertSCC and KZSU. The general public is strongly encouraged to sign up for the various mass-notification systems such as www.AlertSCC.com and www.cityofpaloalto.org/PAPDConnect (social media).

San Francisquito Creek Multi-Agency Coordination (SFC MAC) Group. This group of local agencies was established in 2017 to establish priorities during a severe storm/flood incident of the San Francisquito Creek, provide

coordinated decision making for resource allocation among cooperating agencies, harmonize agency policies, and offer strategic guidance and direction to support incident management activities.⁷

C. Response Phase.

The Public Works Department is the lead agency in the City's response to a winter storm response. Public Works has developed Procedures and Guidelines for Responding to Storm Drainage System Emergencies [Confidential Document]. All other City departments are in support of this response effort but have their own departmental responsibilities based on the general guidelines provided in the the City of Palo Alto Emergency Operations Plan (EOP). Specific winter storm/flood department responsibilities are addressed in the following section.

The Director of Emergency Services may activate the emergency operations structure to manage and coordinate resources to support the Incident Command or Unified Command and the overall emergency response within their jurisdictional boundaries. Key tasks include:

- Survey and evaluate the emergency situation.
- Mobilize, allocate, and position personnel and materials for response operations.
- Establish staging areas for personnel, supplies, and equipment
- Establish Evacuation Centers to aid in managing the movement of people from the area.
- Produce and disseminate emergency information and advice to other EOCs (when a Joint Information Center is not operational).
- Protect, control, and allocate vital resources
- Restore or activate essential facilities and systems

Evacuation.

In general, the low lying areas of Palo Alto are known to collect runoff from storms which includes the Bayshore Corridor (East and West Bayshore Roads and Highway 101). Depending on the local road conditions, evacuation routes will be established to divert traffic away from the Bayshore Corridor, Westward, toward higher grounds. Embarcadero Road, Oregon Expressway, and San Antonio Road will be primary East to West egress routes. These routes connect with Central Expressway, Foothills Expressway, or I-280 to move traffic North and South along the Peninsula. If Embarcadero and

⁷ The SFC MAC Operational Plan for Severe Storm and Flood Response can be found online at: <http://cityofpaloalto.org/civicax/filebank/documents/61626>

Oregon underpasses are flooded, other smaller East to West surface streets must be used instead, such as Charleston Road and Churchill Road.

Key Terms:

Evacuation Warning. The alerting of people in an affected area(s) of potential threat to life and property. An evacuation warning considers the probability that an area will be affected within a given timeframe and prepares people for a potential evacuation order.

Evacuation Order. Requires the immediate movement of people out of an affected area due to an imminent threat to life.

Evacuation Center. Temporary shelter for displaced people for less than 24 hours.

Emergency Shelter. Dormitory shelter for displaced people and animals. Food and overnight lodging is available. Used when housing is needed for more than 24 hours.

Traffic Signals.

Power outages during storms can present a major public safety challenge, especially with regard to traffic signals. The general public is reminded to treat signalized intersections as if there were stop signs when such signals are out.

The following signalized intersections have battery backup systems (BBS) that typically last around 3 hours, but some can be connected to an external generator or battery case:

- San Antonio/Middlefield
- Middlefield/Charleston
- Embarcadero/East Bayshore
- Middlefield/Embarcadero
- Quarry/LPCH (also has generator/bypass switch)
- Quarry/Blake Wilbur Dr. (also has generator/bypass switch)
- Alma/East Meadow
- Alma/Lytton
- Alma/Charleston
- Alma/Churchill Middlefield/Mayview (also has generator/bypass switch)
- Alma/Alma Plaza (also has generator/bypass switch)

Busy intersections without BBS, currently include:

- Alma/Homer
- Alma/Hamilton
- Alma/Lytton
- University/Middlefield
- Embarcadero/St Francis
- San Antonio/Charleston

Snow, Freeze Hazards.

Snow & Debris: The City's Public Works Department has limited equipment resources to deal with snow, mudslides, etc. and plans to contact the County, as needed. When snow conditions are predicted, the Police Department and CSD Rangers may be asked to spot check certain areas and close roads, as needed.

Shelters/Homeless: The Red Cross and the Santa Clara Public Health Department have partnered with the InnVision Shelter Network and EHC Lifebuilders to survey homeless populations and support "warming centers" for those who will use them. In Palo Alto, the Downtown Streets Team also assists.

D. Recovery Phase.

The Director of Emergency Services will determine if the Recovery Branch should be activated based on the impacts to the community. If impacts are significant the implementation of the Damage Assessment Plan will be necessary.

- Gather damage assessment information (public, housing, business) from damage assessment forms/reports in accordance with the Damage Assessment Plan.
- Obtain information from Red Cross regarding number of sheltered persons and support necessary for continued operation.
- Obtain from Red Cross an estimated duration period for continued shelter operations, if any.
- Obtain information from utilities regarding outages, length of repair, safety, etc.

- Assess citizen / community needs for individual assistance and or public assistance.
- Continue to provide public information that provides the public key messages.
- Provide direction to homeowners/businesses impacted by flooding:
 - When to return to home/work
 - Safety considerations upon their return
 - Permitting requirements
 - Flood loss mitigation measures
 - Additional sources of assistance
- Gather financial information from the Finance Officer
- As appropriate gather additional information (work with Finance & Administration Section) to include:
 - Personnel that responded and the time involved in the response.
 - Time sheets or time logs.
 - Supplies used.
 - Contracts issued.
 - Purchase orders issued.
 - Any other expenditures.
 - Damages to public buildings, equipment, utilities, etc.
 - Serious injury or loss of life of any public servant.
 - Documents regarding economic impact.

4. Organization and Responsibilities.

In accordance with the City of Palo Alto Emergency Operations Plan, the Director of Emergency Services, or his/her designee is ultimately responsible for the emergency management functions covered in this plan. Each City department and group may have certain roles, in addition to what is listed in the EOP. Staff who are Disaster Service Workers may be tasked with assisting (beyond their nominal job descriptions).

In a formal EOC Activation, the following organizational structure could be established. Based on the incident and in accordance with the Incident Command System, only those elements that are needed will be formally activated.

Responsibilities. General responsibilities of City departments are provided here. More detailed departmental functions, responsibilities, and tasks can be found in appropriate EOP Annexes (Damage Assessment Annex), Departmental Emergency Plans (Public Works and Utilities), Policies (ASD, Police Department, etc) and Special Orders (Fire Department). Departments should also take appropriate actions to protect their facilities (Libraries, for example, to move items from basements prone to flooding, etc.)

Public Works: Conducts preparedness activities and tasks prior to each storm season, outlined in Public Works related policies and plans. Maintains critical infrastructure and responds to issues relating to ponding/flooding, storm drains, debris, traffic signals, and impacts to public facilities. Also maintains roads within capabilities during times of cold weather / freezing rain incidents.

- Clear storm drains and creeks of blockages.
- Clear and remove debris from emergency / evacuation routes as a priority and other roads within capabilities.
- Assist in repairs to Baylands levee.
- Maintain sandbag stations as a secondary priority.
- For freeze conditions in Foothills region, spread sand to prevent frosting or icing of roads.

Utilities: Maintains utilities critical infrastructure and services. Supports Public Works efforts within capabilities.

Community Services: Provides for mass care and human services as required by the situation:

- Provides evacuation center for populations affected for up to 24 hours.
- Provides shelter for population affected longer than 24 hours.
- Coordinates for warming shelters when necessary.
- Works in conjunction with American Red Cross as necessary for additional support and assistance.

Community Services: Open Space Rangers:

- Conduct surveillance, monitoring, and patrol of Foothills Park Boronda Lake Dam and tributaries flow rates as a predictive measure for downstream impacts. Report conditions.
- Conduct patrol of Baylands Park levee for signs of seepage such as boils or piping. Report conditions.

Fire Department:

- Pump critical infrastructure and flooded properties within capabilities.
- Provide mobile public address warnings as directed.
- Coordinate the transportation of medical baseline customers.

Police Department:

- Coordinate traffic safety, road closures, and other public safety activities.
- Conduct evacuations.
- Provide mobile public address warnings as directed.

Information Technology: Maintains critical infrastructure and services. Provides technical assistance for IT related systems: GIS, Website, Internet access, local network servers, etc.

Incident Command (IC) may be established by Public Safety (Police, Fire, OES) or by other departments such as the Public Works Department. Unified Command (UC) and/or Multi-Agency Coordination (MAC) structures may be established, including with other (mutual aid) jurisdictions.

Staff should also review regional and state plans, such as the State of California Guidelines for Coordinating Flood Emergency Operations.⁸

5. Emergency Public Information & Warning

In any emergency, it can take some time for City staff to 1) ascertain what has happened, 2) what is likely to happen, 3) what areas and/or systems are affected, 4) whom should be notified, 5) the format and method of communication with the public and stakeholders such as neighboring agencies.

It is very important for the public to NOT call 9-1-1, unless there is an imminent threat to life or property. The Palo Alto Police Department

⁸[https://www.caloes.ca.gov/PlanningPreparednessSite/Documents/01%20FEAT%20GuidelinesforCoordinatingFloodEmergencyOperations\(FEAT%20doc\).pdf](https://www.caloes.ca.gov/PlanningPreparednessSite/Documents/01%20FEAT%20GuidelinesforCoordinatingFloodEmergencyOperations(FEAT%20doc).pdf)

administers the Public Safety Answering Point (PSAP) (a.k.a. 9-1-1 Communications Center) for the City of Palo Alto and for Stanford University, covering police, fire, ambulance, public works, utilities, animal services, and other such functions. While it may be tempting to call 9-1-1 during a storm to seek information, doing so can put public safety at risk, since the same people who answer the phones are the ones talking to police and fire first responders on the radio.

Instead, people should be sure to sign up for AlertSCC.com as well as the Palo Alto Public Safety social media options listed on:
www.cityofpaloalto.org/PAPDconnect

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

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

In an incident, like a case where a creek has overtopped its banks or a levee has already failed, early alert and notification is crucial to allow the public as much warning time as possible so they can evacuate or avoid the area.

The City of Palo Alto is committed to notifying the public as to the conditions of creeks and levees that threaten flooding and starting evacuation due to a threat, rather than waiting until flooding has commenced. A well-informed public is likely to respond well in the face of an actual disaster.

In Palo Alto and surrounding areas, there are several platforms available to inform the public. 9-1-1 Each platform has its unique strengths and weaknesses that the PIO and management team must consider.

a. AlertSCC. AlertSCC is the reverse 9-1-1 public warning platform available throughout Santa Clara County. Palo Alto OES and PAPD Technical Services (Communications/Dispatch) personnel are capable of providing internal staff or external public messages, notifications and warnings to all active landline phones in a geographic area as well as voice, email and SMS messages to subscribed users. AlertSCC employs Wireless Emergency Alert (WEA) technology to geographically target messages to the specific areas where evacuation is required. PIOs and Communications/Dispatch may need to

coordinate with other jurisdictions as much as practicable. For example, if school is in session, PIOs should work with the PAUSD PIO, etc.

- AlertSCC template messages exist for Flood Watch, Flood Warning, and Evacuation situations.
- AlertSCC messages will be confirmed by the PIO staff when the appropriate situation arises. The PIO will coordinate the approval of AlertSCC message release with the Director of Emergency Services.
- A designated AlertSCC user will send the approved message.

b. Social Media and City Website. The PIO team will provide messaging using available social media systems (<https://cityofpaloalto.org/connect>); this platform has the largest subscribed following of available warning platforms and will reach a large percentage of our population. The PIO team will create a 'News Detail' or similar thread on the City Website to provide another outlet for storm related information. These platforms will provide preparedness reminders, current status of storm related impacts, and will mirror AlertSCC messaging.

c. Stanford Radio Station Broadcasts: KZSU 90.1 FM. The PIO team will contact KZSU radio station and request routine announcements of information being posted to the City of Palo Alto incident website. Palo Alto OES maintains phone numbers for KZSU critical staff. PIO personnel can utilize a radio transmission auxiliary system located in the City of Palo Alto Council Chambers, 250 Hamilton Avenue to issue public warning information. OES personnel maintain a key to this room.

d. In some cases, Palo Alto Police, Fire, OES, and certain Public Works and Utilities vehicles have public address systems that can be used to provide mobile public warning to affected areas of the City. This form of notification is most likely to be used at night when residents will not be tuned in to radio, or TV; or likely to be monitoring email or cellular/smart phones. Such notification may be triggered under the direction of the Director of Emergency Services or a Field Public Safety Supervisor when appropriate. Vehicle deployment and routes will be based on current conditions, but are predictable based on previous flood incidents.

e. Other systems: Agencies in the area, including San Mateo County, also have various alert and notification tools. One new tool is the SFCJPA's Flood Early Warning site: <https://www.sfcjpa.org/flood-warning-monitor>

Public warning messaging will begin as soon as practicable, prior to a known storm event. During this time, preparedness information will be emphasized referencing existing materials and information on the Winter Storm & Flood website: www.cityofpaloalto.org/storms

- During the response stage, warning information will be emphasized providing status of creeks, reported storm related impacts, and public safety messages such as voluntary or mandatory evacuations.
- During the recovery stage, safety messaging will include when and how to return home, how to start recovering and planning for future mitigation.

Sample Messages.

These are sample messages that can be used for PIO messaging during flood and storm events. Whenever time permits, such messages should be cleared by the City Manager and/or the Director of Emergency Services.

Flood Monitoring:

The City of Palo Alto is actively monitoring weather conditions and areas for potential flooding, landslides, and other such issues that may arise. There is no need for any action at this point by the public, other than taking steps to be prepared and to stay informed.

Please refer to the City's Flood/Storm website:

www.cityofpaloalto.org/storms

or call our Public Information Hotline 650-329-2420 for a recorded message. In some cases, we may broadcast messages on KZSU 90.1 FM.

DO NOT CALL 9-1-1 unless you have an immediate threat to life or other situation you and your neighbors cannot handle.

Flood Watch: The National Weather Service has issued a FLOOD WATCH for the San Francisquito Creek [and/or other areas _____]. A Flood Watch is issued when conditions are favorable for flooding. It does not mean flooding will occur, but it is possible. The Watch expires on _____.

Please refer to the City's Flood/Storm website:

www.cityofpaloalto.org/storms

or call our Public Information Hotline 650-329-2420 for a recorded message. In some cases, we may broadcast messages on KZSU 90.1 FM.

DO NOT CALL 9-1-1 unless you have an immediate threat to life or other situation you and your neighbors cannot handle.

Flood Warning: The National Weather Service has issued a FLOOD WARNING for the San Francisquito Creek [and/or other areas _____]. A Flood Warning is issued when flooding is imminent or occurring. The City of Palo Alto and neighboring jurisdictions are aware of this situation and are responding. If it is unsafe to stay in your home or if you have been told by authorities to leave your home, you should evacuate and move to higher ground or another safer location. In most cases, it will be safer for you to stay at home. Avoid driving on flooded roadways. Stay away from creeks.

Please refer to the City's Flood/Storm website:

www.cityofpaloalto.org/storms

or call our Public Information Hotline 650-329-2420 for a recorded message. In some cases, we may broadcast messages on KZSU 90.1 FM.

DO NOT CALL 9-1-1 unless you have an immediate threat to life or other situation you and your neighbors cannot handle.

Evacuation: {GEOGRAPHIC SPECIFIC} This is an evacuation order from the City of Palo Alto. For your safety, the City of Palo Alto requests that you immediately evacuate by leaving the area and moving to [higher ground]. You are receiving this message because the City of Palo Alto has determined that your specific area is at immediate risk of flooding. An evacuation center has been [WILL BE] established at the Cubberley Community Center: 4000 Middlefield Road. Avoid driving on flooded roadways. Stay away from creeks. DO NOT CALL 9-1-1 unless you have an immediate threat to life or other situation you and your neighbors cannot handle.

6. Planning & Intelligence

The Planning Section, as staffing permits, shall monitor the various sources of information regarding weather conditions and flooding, such as:

- Creek Monitors & Cameras (telemetry)
- National Weather Service (radio alerts & www.nws.noaa.gov/)
- Broadcast News, Internet, Social Media, etc.

The Planning Section may also, if staff and resources permit, monitor:

- other government radio channels (possible in the MEOC)
- traffic (and other) cameras; sensors

The Planning Section, as usual, is responsible for 1) assisting the Incident Commander by developing regular situation awareness briefings and 2) developing the Incident Action Plans for the current and subsequent Operational Periods.

Impacts and Essential Elements of Information.

Management and General EOC Staff as well as the IC/UC will need to be cognizant (and updated) on existing and emerging events and threats that can result from severe weather or be caused, including:

- Flooding: known flood zones; flash floods
- Number of victims killed or injured (if any)
- General boundary of the affected area (flooding, road closures, landslides)
- General extent of damage (to houses, businesses, critical infrastructure)
- Transportation & Roads: blocked roads (trees down, wires down, water, debris)
- Traffic Control: signals out, flooded areas
- Mudslides/Landslides: especially in the Foothills
- Communications: loss of telephone, internet, and other systems
- Extent of power or other utility disruption, estimate of return of service
- Immediate resource and informational needs of Operations Section (Public Works, Utilities, Police, Fire, field units)

- Public Health: mold, disease, etc., particularly after a storm/flood; failure/impairment of wastewater treatment (sewage) or drinking water supply systems
- Evacuation (voluntary or "ordered") and locations and numbers affected.
- Evacuation Centers or Temporary Shelters: instructing community members on which routes to take and where to go for aid (Red Cross, etc.)
- Location of any shelters, medical treatment facilities or other community resources

Appendix A: 100 Year Flood Map.

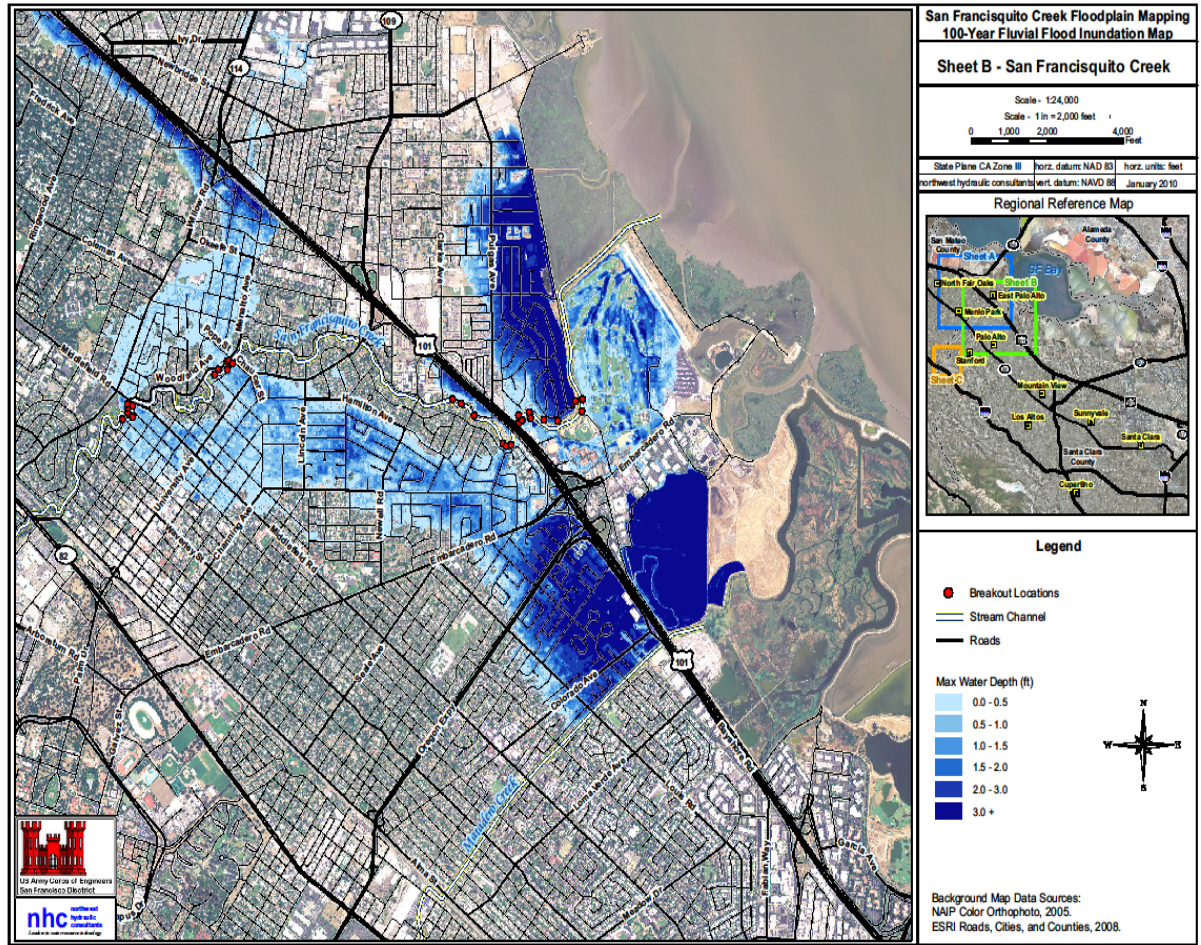


Figure 3: San Francisquito Creek 100 Year Flood Zone

Appendix B: Repetitive Flood Locations

The following locations are known flood prone areas within the City of Palo Alto and should be monitored during any significant storm event.

1. There are 5 repetitive flood loss structures in Palo Alto, these locations are kept on file with the Public Works Department.
2. The Bayshore corridor, which includes East and West Bayshore Road & Highway 101 routinely floods. Anticipate closures or limitations on these roads. Additionally, the residential and commercial areas in the vicinity of these roads are also subject to flooding given the low elevation here.
3. Embarcadero / Oregon Underpasses are also subject to flooding which limit East / West movement through Palo Alto. Portions of Embarcadero Road between Alma street and Middlefield Road are also susceptible to flooding.