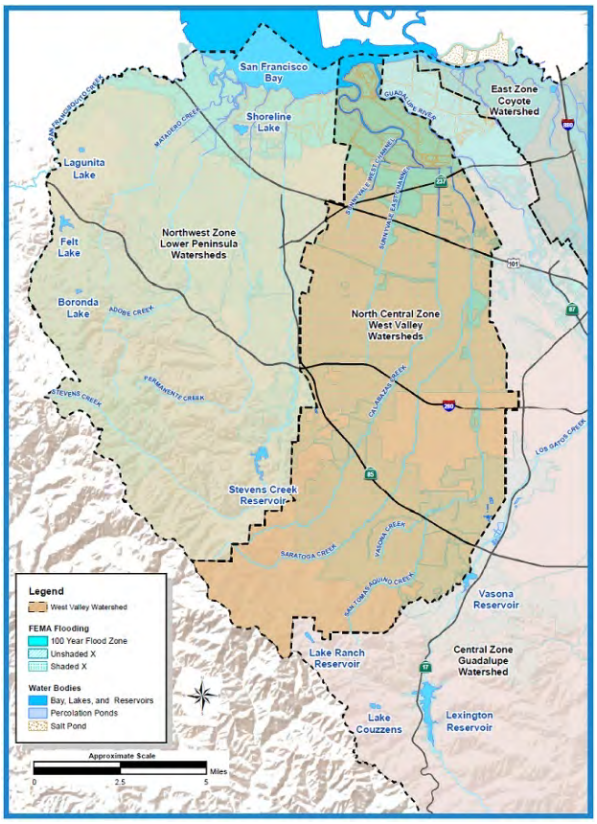
EMERGENCY ACTION PLAN FOR SEVERE STORM AND FLOOD RESPONSE WEST VALLEY WATERSHED



NOVEMBER 2020

SANTA CLARA VALLEY WATER DISTRICT

APPROVAL & IMPLEMENTATION

The Emergency Action Plan for Severe Storm and Flood Response in the West Valley Watershed (EAP) prepared by the Santa Clara Valley Water District (Valley Water) is hereby approved for implementation. This plan, which includes an Appendix with more specific guidance for San Tomas Aquino Creek, shall be reviewed and updated annually as necessary by Watersheds Operations & Maintenance Division in coordination with other affected Valley Water divisions/units and, if appropriate, external stakeholders.

This plan uses resources currently available to Valley Water and does not obligate other stakeholders. It is intended to provide guidance on how Valley Water will coordinate, communicate, and make decisions for preparation and response to storm and flood events. It is not intended to prescribe responsibilities or actions nor constrain the freedom of Valley Water during any phase of operations.

Valley Water's Chief Executive Officer has assigned oversight of emergency management to the Chief Operating Officer (COO) of Information Technology & Administration Services and management of activities relating to creeks in the West Valley Watershed to the COO of Watersheds. Approval and implementation of this EAP is the responsibility of these COOs.

By signing here, the COOs agree to the concepts outlined in this EAP and will continue work on maintaining the EAP, and provide appropriate risk-based resources for preparedness, mitigation and response to ensure business interruption is minimized and Valley Water's services remain reliable to its customers.

DocuSigned by:
Sue Tippets
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11/12/2020

Sue Tippets, P.E. DATE
Interim Chief Operating Officer,
Watersheds

DocuSigned by:
Tina Nguyen Yoke
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11/18/2020

Tina Nguyen Yoke, C.P.M. DATE
Chief Operating Officer,
Information Technology & Administrative Services

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ACRONYMS

Readers of this plan may find it useful to be familiar with the Acronyms used in the document.

Acronym	What is it
AAR	After-Action Report
ALERT	Automated Local Evaluation in Real Time
Alert SCC	Alert Santa Clara County
AP	Action Plan
County	Santa Clara County
DOC	Departmental Operations Center
EAP	Emergency Action Plan for Severe Storm and Flood Response in West Valley Watershed
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ES&S	Emergency Services & Security Unit
FEMA	Federal Emergency Management Agency
FIT	Field Information Team
HH&G	Hydrology, Hydraulics & Geomorphology Unit
IC	Incident Command(er)
ICS	Incident Command System
IPAWS	Integrated Public Alert & Warning System
JIC	Joint Information Center
JIS	Joint Information System
NIMS	National Incident Management System
NWS	National Weather Service
OC	Office of Communications
O&M	Watersheds Operations & Maintenance Division
O&MES	Watersheds Operations & Maintenance Engineering Support Unit
PIO	Public Information Officer
SEMS	Standardized Emergency Management System
SME	Subject Matter Expert
WFOU	Watersheds Field Operations Unit
VFOU	Vegetation Field Operations Unit

RECORD OF HOLDERS OF CONTROL COPIES OF THIS EMERGENCY ACTION PLAN

Copy Number	Unit/Location	Person Receiving Copy	Date
1	Office of Chief Operating Officer – Watersheds	Sue Tippets	
2	Office of Chief Operating Officer – Information Technology & Administrative Services	Tina Yoke	
3	Watersheds Operations & Maintenance Acting Deputy Operating Officer	Jennifer Codianne	
4	Watersheds O&M Engineering Support	Cody Houston	
5	Watersheds Field Operations	Chad Grande	
6	Watersheds O&M Engineering Support	Greg Meamber	
7	Emergency Services and Security	Alexander Gordon	
8	Departmental Operations Center	Chad Grande	
9	Emergency Operations Center	Alexander Gordon	
10	Hydrology, Hydraulics & Geomorphology	Liang Xu	
11	Office of Communications	Linh Hoang	
12	City of Santa Clara	Lisa Schoenthal	
13	City of San José	Ray Riordan	

RECORD OF REVISIONS AND UPDATES MADE TO EMERGENCY ACTION PLAN

Revision Number	Date	Revision Made	By Whom
1			

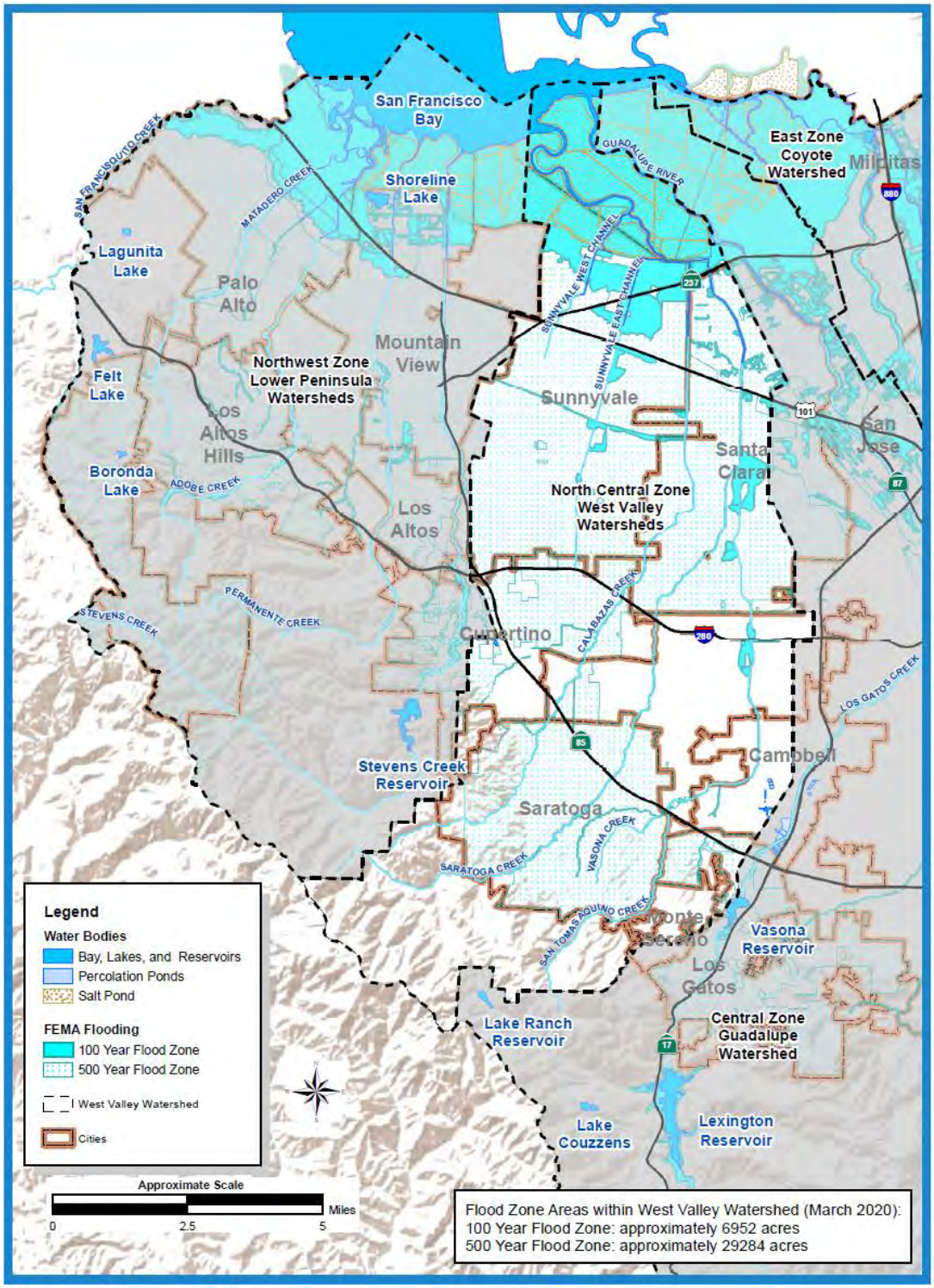
1. INTRODUCTION

A. PURPOSE

The Federal Emergency Management Agency (FEMA) has identified that floods are the most frequent and costly natural disaster in the United States. Creeks in the West Valley Watershed have flooded the cities of Campbell, Cupertino, Los Gatos, Monte Sereno, Santa Clara, San José, Saratoga, and Sunnyvale in Santa Clara County several times over the years. FEMA estimates that there are currently about 5,000 parcels and 7,000 acres subject to flooding from a 100-year (1%) flood event (Figure 1). In addition, other properties not shown in the FEMA flood area are still subject to flood threats due to potential unforeseen events (e.g., extreme storm events, levee failures, channel blockages) and from water ponding due to inadequate storm drainage. With this in mind, it is important to adequately prepare and respond to potential or actual flood events to protect the people and property in the Watershed.

This Emergency Action Plan for Severe Storm and Flood Response in the West Valley Watershed (EAP), a Valley Water internal document, is based on previously prepared Valley Water Emergency Action Plans and follows the same format as other Valley Water Emergency Action Plans for Severe Storms and Flood Response. It is focused on fluvial flood threats caused by severe storms and high flows in the creeks and is intended to provide general guidance for response in the West Valley Watershed. In addition, specific guidance is included for select creeks within the Appendix (San Tomas Aquino Creek is the only one currently included) to facilitate Valley Water's activities within the following four areas:

1. Pre-incident planning prior to a storm/flood event,
2. Response to potential, imminent or actual storm/flood events,
3. Recovery actions following a storm/flood event, and
4. Coordination with the other responsible jurisdictions



GIS themes are for illustration and general analysis purposes only and are not accurate to surveying or engineering standards. Information is not guaranteed to be accurate, current, or complete and use of this information is your responsibility.

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Valley Water

FIGURE 1
West Valley Watershed & FEMA Flood Map
(500-yr flood zone may not reflect actual conditions)

B. STRUCTURE OF THIS EMERGENCY ACTION PLAN

The plan is organized in three sections:

Base Plan	The Base Plan identifies the roles, responsibilities and actions assigned to Valley Water and responsibilities and actions expected of other stakeholders in the West Valley Watershed.
Attachments	Attachments include information and guidance useful in any Severe Storm or Flood Incident.
Appendices	Provides specific details on creeks in the West Valley Watershed.

C. STAKEHOLDERS

Valley Water is one of many stakeholders in the Watershed and will fulfill related responsibilities before, during and after flood emergencies as resources are available and/or can be safely deployed. Other stakeholders include property owners along the creek and public agencies that have responsibility related to emergency preparedness or response in the West Valley Watershed. In addition to Valley Water and private property owners, other stakeholders included in the list below have important responsibilities or functions that may be identified in this EAP:

- City Stakeholders
    - City of Campbell
    - City of Cupertino
    - Town of Los Gatos
    - City of Monte Sereno
    - City of Santa Clara
    - City of San José
    - City of Saratoga
    - City of Sunnyvale
- County of Santa Clara (County)
- Caltrans
- Santa Clara Valley Transportation Authority
- Caltrain (also known as Peninsula Corridor Joint Powers Board)
- School Districts (Campbell, Fremont, Los Gatos-Saratoga, Moreland, and Santa Clara)
- National Weather Service (NWS)
- Federal Emergency Management Agency (FEMA)

While some of the stakeholders may have jurisdictions, responsibilities and, in some cases, oversight of the creek for flood protection, this plan is focused on the related activities of Valley Water. As such, the Valley Water has many internal stakeholders that are involved in preparing and responding to emergency situations. The primary internal Valley Water stakeholders that may be have responsibilities and actions assigned in this EAP are:

- Valley Water Board of Directors
    - Office of District Counsel
        - Risk Management Program
    - Office of the Chief Executive Officer
        - Office of Chief Operating Officer – Information Technology & Administrative Services
            - Emergency Services & Security Unit (ES&S)
    - Office of Chief Operating Officer – Watersheds
        - Operations & Maintenance Division (O&M)
            - Watersheds Field Operations Unit (WFOU)
            - Vegetation Field Operations Unit (VFOU)
            - Operations & Maintenance Engineering Support Unit (O&MES)
        - Watershed Stewardship & Planning Division
            - Hydrology, Hydraulics & Geomorphology Unit (HH&G)
        - Watersheds Design & Construction Division
            - Community Projects Review Unit
            - Design and Construction Unit
    - Office of Chief of External Affairs
        - Office of Communications (OC)
        - Office of Government Relations
        - Office of Civic Engagement

D. LIMITATIONS OF EAP

This EAP shall not constrain the freedom of an Incident Commander (IC) in the field or others when dealing with flooding in the West Valley Watershed. This EAP does NOT and will NOT replace or override Valley Water's:

- Emergency Operations Plans,
- Department Operations Center Plans,
- Public Safety Authority,
- Public Information Officer role/responsibility,
- Purchasing Authority, nor
- Responsibility for documentation for any state or federal Declaration of Emergency.

Instead this EAP will focus on how Valley Water can improve coordination before, during and after a flood incident to include providing oversight and guidance. It is not intended to set precedent or commit resources without knowledge of the conditions that may occur, nor provide prescriptive lists of what to do during storm and flood monitoring and response, that Valley Water and other Stakeholders are individual jurisdictions and have independent responsibility to accomplish their tasks. The conditions of the emergency dictate the response needs and availability of staff and resources as each emergency can be different and updates in stream management and control systems could vary the conditions. Valley Water will utilize this EAP as needed to develop decisions and actions based on the situation and current capabilities, resources and priorities.

While this EAP, an Attachment, or an Appendix within may reference an activity related to facility improvements or maintenance, those will be done through separate plans or activities.

E. USE OF THE EAP

This Valley Water internal document is intended to be used by Valley Water before, during and after a storm and includes proactive cooperation with the cities, County of Santa Clara, and other stakeholders as needed. Some response data includes restricted or sensitive information. The restricted portions of this document will clearly be indicated on the subject pages and will not be distributed or made available externally to individuals outside of the Valley Water. Valley Water may distribute the full EAP internally, but will handle with the same care as other restricted documents.

F. RELATIONSHIP TO OTHER PLANS

This EAP provides additional guidance specific to Valley Water in its planning, response and recovery activities related to flood emergencies in the West Valley Watershed. This guidance does not supersede existing agreements or internal plans, such as, the Valley Water Emergency Operations Plan (EOP), and is consistent with other Valley Water

Emergency Action Plans. It may include responsibilities or actions that may be taken by other external stakeholders, many of which are included in this plan, but is not intended to prescribe that responsibility or action to them or to Valley Water. The reference to external stakeholders is intended to show that the responsibility or action is not expected of Valley Water.

G. TRAINING ON EAP

Regular emergency operations training and exercising of plans is critical to successfully respond to emergency events. As the lead agency for flood protection in Santa Clara County, Valley Water will regularly conduct related training and include other stakeholders as appropriate. Valley Water staff participating in these training exercises should use it as an opportunity to review and exercise the Valley Water EOP and, when appropriate, this EAP.

The Emergency Services & Security Unit (ES&S) is generally responsible to coordinate and conduct these training sessions that may include: Discussion-based exercises, such as, Workshops, Seminars, or Tabletop Exercises; Operational exercises to test communications or notifications systems; or Functional Exercises to test the operational capabilities of the Departmental Operations Centers (DOC) and/or Emergency Operations Centers (EOC). These will often be general training but may also use specific scenarios that could include the use of this EAP.

If this EAP has not been included as part of another training effort or activated for any other reason over a 5-year period, the Watersheds Operations & Maintenance Engineering Support Unit (O&MES) will work with ES&S to schedule a test of the EAP.

This test can consist of a meeting, including a tabletop exercise, or be conducted as part of Watersheds Operation & Maintenance Division (O&M) tabletop exercises. A scenario or scenarios specific to a creek included in this EAP should be given to allow participants to discuss response and actions they would take to address and resolve the scenario. It is preferable if each section of the EAP should be utilized during the exercise.

Following any exercise or activations, responses and actions should be reviewed, any opportunities to improve or make changes to the EAP should be discussed, and all of this should be documented in a summary document or After-Action Report (AAR) prepared by an appropriate party.

H. MAINTENANCE OF EAP

O&M will work with ES&S, Hydrology Hydraulics & Geomorphology (HH&G) and other appropriate stakeholders to review and, if needed, update the EAP at least once each year. The EAP annual review should include the following:

- Verify that the phone numbers and persons in the specified positions are current and revise if any of the contacts have changed;
- Verify and, if necessary, update flood maps and flood thresholds;

- Verify the locally available resources and equipment are current; and/or

- Incorporate appropriate recommendations from any AAR prepared after training or activation of the EAP.

1. Revisions

Watersheds O&M Division is responsible for updating the EAP document. The EAP document held by Watersheds O&M Engineering Support Unit Manager is the master document. When revisions occur, the Watersheds O&M Division will provide the revised pages and an updated revision summary page to all EAP document holders. This can be done utilizing several methods including electronically using Portable Document Format (PDF) file sharing or emails.

EAP document holders are responsible for updating outdated copies of the respective documents whenever revisions are received. Outdated pages or files should be immediately discarded to avoid any confusion with the revisions.

ES&S is responsible for maintaining Valley Water's Flood Emergency Action Plans webpage and will post all revised public versions of the EAP on ValleyWater.com as determined appropriate.

2. CONCEPT OF OPERATIONS

A. OPERATIONAL LEVELS

While the primary purpose of this EAP is to provide guidance during flood emergencies, to maintain the collaborative nature of the emergency preparedness and response with other stakeholders this **EAP is in a state of perpetual activation, throughout the year, regardless of the flood condition level**. As the flood threat changes the operational levels will be changed to reflect the current condition. The operational level is composed of the Flood Condition Level and, if determined appropriate, a Flood Severity Level. Tables 1 and 2 below describe the Flood Condition Levels and the Flood Severity Levels respectively. These levels are consistent with those used and issued by the National Weather Service. In addition to high flow condition levels, Attachment 1 lists other events that may result in a change of Condition Level.

TABLE 1
Flood Condition Levels

Preparedness (Green)	This is the base stage of readiness that will be the typical condition throughout most of the year. It is defined as: • Flood stage (Minor Flooding or greater) or 90% to 100% of Design Flow stage is not estimated within the next 72 hours, or • Measured stream depth is below 50% of flood or 70% of Design Flow stage.
Monitoring (Yellow)	This condition is variable and requires more intense monitoring and a heightened level of alertness. Minimal staff in the Emergency Operations Center (EOC) or in Watersheds Departmental Operations Center (DOC) may be activated. An informal EOC/DOC Action Plan (AP) could be initiated. This condition is defined as: • Stream depth is estimated to reach flood or 90%-100% of Design Flow stage in 72 hours or more, or • Measured stream depth is at 50% to 70% of flood or 70% to 90% of Design Flow stage, or • For areas that are controlled purely by storm drain runoff (flashy systems), the stream depth is estimated to reach flood or near Design Flow stage within 24 hours.
Watch (Orange)	The EOC/DOC may be opened if not already operating. A formal EOC/DOC AP may be drafted if they are active. This condition would be set if: • Stream depth is estimated to reach flood or greater than Design Flow stage within 24 to 72 hours, or • Measured stream depths are at 70% to 100% of flood stage, or • Measured stream depths are at 90% to 100% of Design Flow stage, or • For areas that are controlled purely by storm drain runoff (flashy systems), the stream depth is estimated to reach flood or greater than Design Flow stage within 6-12 hours.

Warning (Red)	The EOC will typically have been activated and would be closely monitoring the situation, providing notifications and responding according to a written AP. Often for smaller watersheds with flashy creeks, an EOC may not be opened until the storm event is occurring. • Flood stage or greater than Design Flow stage is occurring or is estimated to occur within 24 hours, or • Measured stream depths are 100% or greater than flood stage, or • Measured stream depths are greater than Design Flow stage, or • For areas that are controlled purely by storm drain runoff (flashy systems), the stream depth is estimated to reach flood or greater than Design Flow stage within minutes/hours or is occurring.

TABLE 2
Flood Severity Levels

Action (Yellow)	An established gauge height which when reached by a rising stream, lake, or reservoir represents the level where action is taken in preparation for possible significant hydrologic activity.
Minor Flooding (Orange)	Minimal or no property damage, but possibly some public threat (e.g., inundation of roads).
Moderate Flooding (Red)	Some inundation of structures and roads near stream, evacuations of people and/or transfer of property to higher elevations.
Major Flooding (Purple)	Extensive inundation of structures and roads, significant evacuations of people and/or transfer of property to higher elevations.

B. EMERGENCY ACTION PLAN: OBJECTIVES AND FUNCTIONS

Valley Water and other stakeholders focus on the following Objectives, Capabilities, and Functions. The following is consistent with the concepts of the National Incident Management System (NIMS) and Incident Command System (ICS) from the FEMA and the Standardized Emergency Management System (SEMS) from the State of California Office of Emergency Services.

1. Objectives

The following objectives are in alignment with the purpose of this EAP to coordinate the interagency response, resource management and recovery operations; and to collaborate on public messaging.

- **Objective 1: Identify Conditions, Actions, and Needs**
  - o Core Capability: Situational Awareness
- **Objective 2: Notification of Involved Agencies and Staff**
  - o Core Capability: Activation; Coordination

- **Objective 3: Emergency Public Information**

  - Core Capability: Public Information Officer (PIO) Collaboration in communications

- **Objective 4: Warning**

  - Core Capability: Public Warning

- **Objective 5: Coordination of Field Operations; Resource Sharing**

  - Core Capability: Personnel Accountability; Mutual Aid; Tracking; Finance Issues

2. Functions & Personnel

In keeping with the concepts of SEMS and NIMS, utilizing common functions to maintain the orderly flow of information and responsibility within an agency and between agencies is important during emergency situations. Consistency in utilizing the SEMS functions in an activation improves the organization and communication flow.

During any condition level, personnel will be assigned to fulfill the required actions. In early progression of an event (e.g., Monitoring), staff may perform the duties of multiple functions. But, as an event progresses in condition levels, the functions will likely require dedicated staff assigned to these Sections to fulfill the duties. The Sections and/or functions utilized during condition levels are listed below and are described in Valley Water's Emergency Operations Plan (EOP) and EOC Responder Handbook.

a. Management

Activation of an EOC or DOC is a Management Section function as described in the EOP or other Standard Operating Procedures consistent with SEMS and NIMS. Responsibilities of the Management Section include: EOC Director, liaison, safety/risk, and public information. As conditions warrant or progress, EOC/DOC Management personnel have the ability to make policy decisions within constraints defined by the Elected Officials, including those on matters of cost and/or liability, staffing levels, and resource needs. Agency Representative and Agency Coordinators, which are personnel terms used in other Emergency Action Plans and Multi-Agency Coordination Plan, are members of the Management Section. Valley Water and other Stakeholders Management Sections may confer on:

- Critical conditions
- Agency priority responses
- Common resource needs
- Resource request processing
- Managing conflicting policy issues

- Co-locating EOC personnel
- Sending liaison staff to other stakeholder EOCs

Managing the EOC facility, maintaining the EOP and related documents (excluding the Emergency Action Plans), and assuring staff is properly trained at Valley Water is a responsibility of Emergency Services & Security Unit (ES&S). ES&S supports the Management and other EOC Sections during an activation with guidance on procedures, related materials and emergency forms (e.g., ICS Form 214 – Activity Log).

Public Information Officers (PIOs) are staff assigned to the Management Section and are typically staff from the Valley Waters Office of the Chief of External Affairs. As an event unfolds there is a constant need of notifying the public of conditions and what to do. The PIOs are responsible for identifying with whom to communicate, creating the message, and specifying the format and method of communication to deliver the message to the public and stakeholders.

The PIOs from Valley Water and from each involved Stakeholder Agency will follow the checklists and responsibilities identified in their EOPs. This EAP does not change that responsibility or override the tasks outlined in the EOP.

PIOs should coordinate to create a common message to avoid confusing the public, which can occur when each of the agencies sends out disparate messages. They should also communicate on methods and multi-lingual needs to sending out messages that may be accomplished through use of the Alert Santa Clara County (Alert SCC), Integrated Public Alert & Warning System (IPAWS), deployment of Long Range Acoustic Devices, door to door contact with volunteers or employees, or other methods.

During an event requiring a significant about of coordination, the PIOS should consider the establishment of a Joint Information System (JIS) or Joint Information Center (JIC).

Elected Officials have important public and policy functions during the Watch and Warning stages of emergencies, but they should not be involved in the details of an emergency response. To assist them in their function, Valley Water PIO or other Management Section assigned liaison staff will be directed to contact and keep them informed of the situation and provide them with appropriate public messaging. If Elected Officials are in contact with affected constituents and receive pertinent information, they should convey that information to the DOC/EOC through PIO or their assigned liaison staff.

b. Planning/Intelligence

In an emergency, it can take some time for an agency to (1) ascertain what has happened, (2) what is likely to happen, and (3) what areas and/or systems are affected. The SEMS and NIMS function of

Planning/Intelligence helps gather and validate information and thereby fulfill the need for intelligence. In the early condition levels of an emergency, Planning/Intelligence Section may be combined under one person who may also be filling other functions (e.g., Operations). As an emergency response grows and additional staff are required it should be separated from other functions and all associated responsibilities transferred to the appropriate Section. Below are some of the responsibilities of Planning/Intelligence.

(1) Documentation

All activity and actions will be documented as best as possible through the use of an ICS Unit Log and other standard forms available at the EOC Facility. The use of status boards is encouraged to clearly communicate information to EOC personnel.

(2) Situation Status

The **Subject Mater Experts (SMEs)** consolidate all intelligence and provide Situational Awareness regarding weather forecasts, damage assessments, flooding reports, traffic conditions, etc. This is accomplished through reports, documentation on status boards and/or maps, and is conveyed through an Action Plan (AP). The AP may be verbal at the Monitoring stage of EOC/DOC operations. When the EOC is activated at a Watch or Warning Operational Level, an AP for a specified operational period should be written. For Valley Water, staff from the **Hydrology, Hydraulics & Geomorphology Unit (HH&G)** are generally assigned this function in the Planning/Intelligence Section, but staff from other units may also be assigned to serve as SMEs.

(3) Agency and Resource Status

Determining what agencies have accomplished and what they may need includes identifying what personnel and resources have been deployed, the prevailing condition, the need for mutual aid, and tracking other resource demands or similar requests.

(4) Notification

The Planning/Intelligence activities accomplished by the SMEs lead to the appropriate notification of Stakeholders as described in Section 3, Mobilization of EAP.

c. Operations

Staff from Valley Water's Watersheds Field Operations Unit (WFOU) are often the first responders to flood events in the field and will initiate the ICS by assigning an Incident Commander (IC) for the area of concern. WFOU or Operations & Maintenance Engineering Support Unit (O&MES)

will generally open a Department Operations Center (DOC) to coordinate the response. The IC will notify their DOC and, if activated and appropriate, the Valley Water Emergency Operations Center (EOC) of activities and conditions in the area.

Operations Section and sometimes Planning/Intelligence Section will deploy Field Information Teams (FITs) to observe and inspect facilities. The FIT provides critical "boots on the ground" information and intelligence back to the EOC/DOC on facility conditions and storm related concerns.

- *FIT Personnel*: These may be personnel assigned to the Operations Section or Planning/Intelligence Section in their respective DOC/EOC. Or these may be staff in the field conducting operations and maintenance related activities as part of the ICS. HH&G manages a Valley Water FIT program and maintains a current master list of "hotspots" for deployments in preparedness for severe storm and high flow events.

- *FIT Authority includes*: Provide field intelligence to their DOC/EOC Section Leader or their organizational supervisor/manager. Take actions that would mitigate risks only if capable and appropriate.

d. Logistics

As the incident unfolds and resources respond to the prevailing conditions, skilled or scarce resources will be tapped-out and require backfill, replacement or additional support. The support can come in the form of mutual aid assistance, contractors, vendors, or other sources. Resource requests will be noted and coordinated as much as possible through the EOCs or DOCs. The method of request, including any related form, will be coordinated with the Agency fulfilling the need. If resources cannot be met by local stakeholders, a request for assistance can be sent to the Santa Clara County Operational Area.

e. Finance

Acquiring resources or entering into procurement contracts or mutual aid agreements may require financial actions. In addition, the costs associated with an event should be documented for potential future reimbursements. This is especially the case as resources from one Agency are shared with another Agency. This use of equipment, personnel or other resources may be reimbursable, based upon agreement.

C. PROGRESSION

There are general responsibilities for each flood condition level that are recommended. Responsibilities and activities listed in Table 3 demonstrate how the Valley Water and other Stakeholders functions grow from Pre-Incident Preparedness to Monitoring, Watch, and Warning. The overall change in level of participation, number of participants, and staffing needs is incident specific, because not all potential or actual incidents are the same and availability of resources can vary.

The list of progressive responsibilities and activities listed in Table 3 are not intended to be all-inclusive or to commit resources without knowledge of the conditions that may occur, nor are they intended to be a prescriptive list of what to do before and during storm and flood monitoring and response. The actual conditions dictate the response needs and availability of staff and resources as each situation can be different and updates in stream management and control systems could vary the conditions.

TABLE 3
Progressive Responsibilities

	Responsibility/Activity	Stakeholder/Personnel/Unit*
Preparedness (Green)	Train & Exercise EOP/EAP and document any outcomes in an After-Action Report (AAR).	Emergency Services & Security (ES&S)
	Meet with Stakeholders as appropriate to discuss property management needs and plans.	Operations & Maintenance (O&M)
	Conduct field inspections of creeks and facilities.	Operations & Maintenance Engineering Services (O&MES)
	Perform mitigation work to reduce flood risk.	Watershed Field Operations Unit (WFOU), Vegetation Field Operations Unit (VFOU), Watersheds Design & Construction Unit
	Inventory and Procure Flood Fighting Materials and Equipment (Attachments 11 & 12).	WFOU and VFOU
	Identify location for flood fighting resources for the public (e.g., sandbag locations shown in Attachment 7).	O&MES & VFOU
	Support & Coordinate with FEMA Floodplain Managers who maintain the National Flood Insurance Program Community Rating System certification.	Community Projects Review Unit and Office of Civic Engagement
	Provide technical floodplain mapping expertise and provide a copy of flood maps on a Valley Water internal drive that can be accessed by appropriate personnel as necessary.	Hydrology, Hydraulics & Geomorphology (HH&G)
	Coordinate, as members of the National Flood Insurance Program, on updates or modifications to FEMA floodmaps.	City Stakeholder, Community Projects Review Unit and Office of Civic Engagement
	Maintain equipment, gauges, telemetry, communications systems, etc.	HH&G, City Stakeholder
	Develop and maintain computer models of watersheds and creeks.	HH&G
	Prepare Field Information Teams (FITs) and maintain FIT Hot Spot information.	O&MES & HH&G

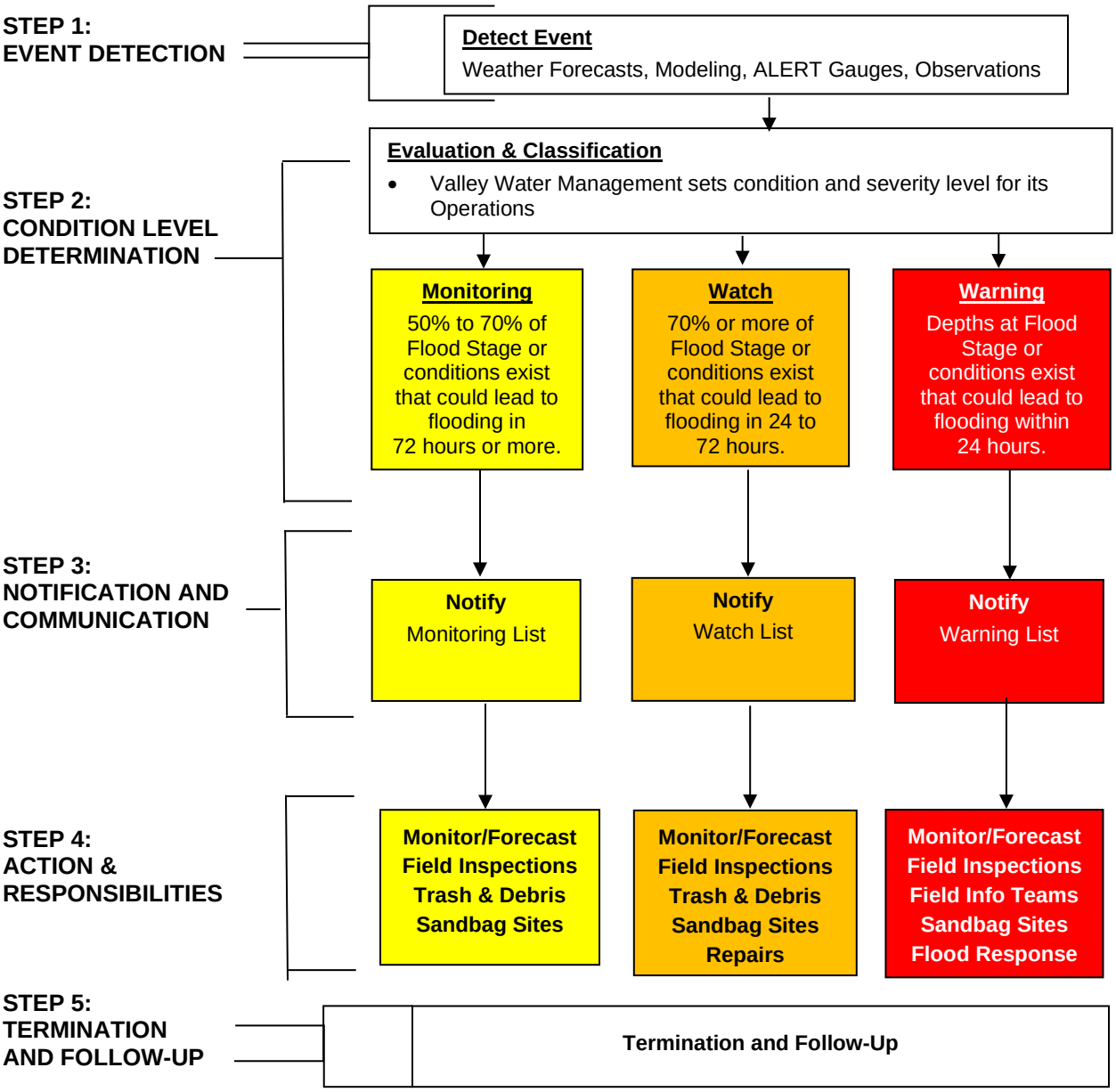
	Responsibility/Activity	Stakeholder/Personnel/Unit*
	Conduct winter preparedness workshop.	ES&S
	Annual review and update of EAP.	O&M, ES&S, HH&G
	Manage flood information websites (Attachment 13).	Office of Communications (OC), HH&G, ES&S, National Weather Service (NWS), Federal Emergency Management Agency (FEMA)
	Publish Preparedness Public Outreach (e.g., Winter Preparedness) in multiple languages.	OC
	Provide public education in multiple languages.	OC
Monitoring (Yellow)	Activate the EAP for "Monitoring."	Emergency Operations Center (EOC) or Department Operations Center (DOC) Management
	Notify staff about the increased condition level.	EOC or DOC Management-Public Information Officer (PIO)
	Communicate with other agencies to discuss activation level.	EOC or DOC Management
	Deploy and coordinate Field Information Teams (FIT).	O&MES and/or HH&G
	Respond to, and mitigate, minor events as needed (examples of remedial actions are listed in Attachment 2); coordinate with each responding agency.	O&MES/WFOU
	Inspect and clean Trash Racks and Bridge Pier Noses.	WFOU
	Maintain inventory of sandbags at locations shown in Attachment 7.	VFOU
	Respond to equipment needs at localities likely to be affected if possible; coordinate with each responding agency.	WFOU
	Manage and update flood information websites (Attachment 13).	OC, HH&G, NWS, FEMA
	Provide public education in multiple languages.	OC and City Stakeholders
	Provide information to Elected Officials.	EOC Management-PIO
	Monitor Stream Gauges.	HH&G
	Update computer modeling based on forecast and watershed conditions and provide a copy of flood maps on a Valley Water internal drive that can be accessed by appropriate personnel. If possible and deemed necessary, provide forecast flood maps to Agency Stakeholders.	HH&G
	Review evacuation planning needs.	City Stakeholder and County
	Report to Agency Stakeholder EOC when directed and available.	EOC Planning/Intelligence or Operations
Watch (Orange)	Activate the EAP for "Watch."	EOC or DOC Management
	Report to Agency Stakeholder EOC when directed and available.	EOC Planning/Intelligence or Operations
	Notify appropriate staff about the increased condition level.	PIO
	Determine next level of activation.	Management
	Confer with Agency Stakeholders to determine response coordination needs and resources needs.	Planning/Intelligence or Operations
	Communicate risk to elected officials.	EOC Management-PIO

	Responsibility/Activity	Stakeholder/Personnel/Unit*
Watch (Orange)	Confer with EOC Director on conditions for potential evacuation and shelter support.	City Stakeholder and County EOC
	Respond to, and mitigate, minor events as needed (examples of remedial actions are listed in Attachment 2); coordinate with each responding agency.	WFOU
	Inspect and clean Trash Racks and Bridge Pier Noses.	WFOU
	Respond to equipment needs at localities likely to be affected if possible; coordinate with each responding Agency Stakeholder.	EOC Operations and/or WFOU
	Deploy and coordinate Field Information Teams (FIT).	O&MES/HH&G
	Monitor Stream Gauges.	HH&G
	Update computer modeling based on forecast and watershed conditions and post flood maps on a shared drive for internal Valley Water Use, if possible and deemed necessary, provide forecast flood maps to Agency Stakeholders.	HH&G
	Evaluate possible recommendations for City storm pump station operating changes and communicate with City.	Planning/Intelligence and Management
	Maintain inventory of sandbags at locations shown in Attachment 7.	VFOU
	Update location for flood fighting resources for the public and supply additional resources as needed (e.g., sandbag locations).	EOC Operations, WFOU, and/or VFOU
	Manage flood information websites (Attachment 13).	OC, HH&G, NWS, FEMA
	Provide public information in multiple languages.	Each Stakeholder EOC Management-PIO collaborates and is lead to its constituents.
	Provide public warning in multiple languages.	City Stakeholder is lead. County is key support.
	Activate other public notification systems (e.g., Alert SCC, Facebook, Nextdoor), as appropriate.	City Stakeholder is lead.
	Activate Joint Information System (JIS) and, if necessary, Joint Information Center (JIC) as appropriate.	City Stakeholder or County is lead.
	Participate in JIC/JIS if activated.	EOC Management-PIO
	Communicate with media as needed.	Joint Information System (JIS)/Joint Information Center (JIC) or each Stakeholder is lead for own agency activities.
	Provide information on impact and available resources to and from respective EOC's.	EOC Management
	Provide information to and from respective EOC's, including status reports and briefings.	EOC Management
Warning (Red)	Activate the EAP for "Warning."	EOC Management
	Report to Agency Stakeholder EOC when directed and available.	EOC Planning/Intelligence or Operations
	Notify appropriate staff about the increased condition level.	EOC Management-PIO
	Confer with Agency Stakeholders to determine response coordination needs and resources needs.	EOC Planning/Intelligence or Operations
	Communicate risk to elected officials.	EOC Management-PIO

	Responsibility/Activity	Stakeholder/Personnel/Unit*
Warning (Red)	Confer with EOC Director on conditions for potential evacuation and shelter support.	City EOC and/or County EOC is lead.
	Provide information on impact and available resources to and from respective EOC's.	EOC Management
	Coordinate resources through respective EOCs.	EOC Management or Logistics
	Respond to, and mitigate events as needed (examples of remedial actions are listed in Attachment 2); coordinate with each responding agency.	EOC Operations and WFOU
	Inspect and clean Trash Racks and Bridge Pier Noses.	WFOU
	Respond to equipment needs at localities likely to be affected if possible.	EOC Operations and WFOU
	Deploy and coordinate Field Information Teams (FIT).	O&MES/HH&G
	Monitor Stream Gauges.	HH&G
	Update computer modeling based on forecast and watershed conditions and, if possible and deemed necessary, provide forecast flood maps.	HH&G
	Evaluate possible recommendations for City storm pump station operating changes and communicate with City.	Planning/Intelligence and Management
	Maintain inventory of sandbags at locations shown in Attachment 7.	VFOU
	Update location for flood fighting resources for the public and supply additional resources as needed (e.g., sandbag locations).	EOC Operations, WFOU and VFOU
	Manage flood information websites (Attachment 13).	OC, HH&G, NWS, FEMA
	Provide public information in multiple languages.	Each Stakeholder EOC Management-PIO collaborates and is lead to their constituents.
	Provide public warning and shelter information in multiple languages.	City is lead. County is key support.
	Activate other public notification systems (e.g., Alert SCC, Facebook, Nextdoor, door to door/mobile for warning) as appropriate.	City Stakeholder EOC Management-PIO is lead.
	Activate Joint Information System (JIS) and, if necessary, Joint Information Center (JIC) as appropriate.	City Stakeholder or County is lead.
	Participate in JIC/JIS if activated.	EOC Management-PIO
	Communicate with media as needed.	JIS/JIC or each Stakeholder is lead for own agency activities.
	Provide information to and from respective EOC's, including status reports and briefings.	EOC Management
	Implement evacuation plans and deploy resources to evacuate.	City Stakeholder is lead.
	Proclaim Local Emergency as appropriate.	City Stakeholder is lead.

*If only one Stakeholder is noted as lead, other Stakeholders/Personnel/Units may support the effort.

D. EMERGENCY ACTION PLAN OVERVIEW



E. EMERGENCY ACTION PLAN MOBILIZATION

Step 1: Event Detection

Several detection methods can be utilized in the West Valley Watershed that include weather forecasts, hydrologic/hydraulic modeling, Automated Local Evaluation in Real Time (ALERT) stream/reservoir/precipitation gauge systems, and field observations. Some of these detection methods are available through websites that are listed in Attachment 13.

a. Weather Forecasts

The National Weather Service (NWS) provides weather (e.g., precipitation) forecasts in advance of storm events and Valley Water contracts with a service provider for enhanced forecasting.

During storm events, the NWS will host webinars with affected agencies and utilities to discuss forecasts and share information to enhance regional preparedness. The Valley Water and Agency Stakeholders can participate in these webinars and share all current information. In addition, the NWS maintains websites (Attachment 13) that provide forecasts and will issue public notices of forecasted flood threats on local television and radio programming.

b. Hydrologic/Hydraulic Modeling

If forecasts show a heightened possibility of flooding, it is possible that Valley Water will run hydrologic and hydraulic modeling to determine risk and impact areas for a specific storm event.

c. Gauge System

A listing of all Valley Water gauges and a United States Geological Survey gauge on Saratoga Creek can be found at http://alert.valleywater.org (links are listed in Attachment 13). Valley Water's Automated Local Evaluation in Real Time (ALERT) system can set alarms to automatically notify appropriate staff at predetermined stages. These gauges and alarms provide data in near real-time and can provide extra warning to determine the level of threat for flooding.

d. Field Information Teams and Field Operations & Maintenance

As water levels increase in the creeks, rivers, and waterways, Valley Water Field Information Teams (FITs) are deployed to visually monitor and report back to a DOC or EOC the rate of increase in areas of potential flooding. In addition, FITs can monitor facilities for potential damage, identify surface drainage issues, thoroughly document actual flooding, and report landslides/erosion affecting the adjacent land uses.

The Valley Water and, in some cases, other Stakeholders have individual teams in the field to observe flood conditions at "hot spots." Deployment of these teams should be coordinated so that personnel are used most efficiently and effectively. HH&G maintains a master list of flooding hotspots to deploy FITs and other teams (Attachment 14).

Operations & Maintenance staff are also typically in the field inspecting and repairing facilities during storm events. These personnel should also provide intelligence back to their agencies EOC/DOC regarding facility conditions and any storm related concerns.

In addition, the public may be helpful in reporting situations that may pose a flood threat. These are typically reported to Valley Water, City Stakeholder or other stakeholder who should promptly relay that intelligence to the DOC/EOC or to Valley Water through a contact method shown below:

- Main Valley Water telephone – (408) 265-2600
- After hours telephone – (408) 395-9309
- Valley Water website report problems – https://www.valleywater.org/contact-us or https://clients.comcate.com/newrequest.php?id=80
- Non-Emergency Police & Fire dispatch – 311
- Emergency Police & Fire dispatch – 911

All together the intent of these observations is to cover the following:

(1) Visual stream gauges—check for high water and rate of change
(2) Known Flood Hot-Spots
(3) Real-time Flooding—report and document flooding
(4) Bridge Piers—check for debris blockages
(5) Trash Racks—check for debris blockages
(6) Levees and Floodwalls—check for damage and stability
(7) Sandbag sites—check for supply and access issues
(8) Previously repaired or other project sites—check for performance
(9) Bank Stability—check for threats to adjacent land uses

Step 2: Condition Level Determination

Evaluation—After detecting and gathering adequate intelligence regarding the situation, an evaluation of waterway conditions must be performed by appropriate personnel. The personnel evaluating the intelligence will generally be one or more SMEs that will generally include staff from O&M and HH&G. SMEs evaluation of intelligence information will be shared with appropriate management staff for decisions on actions and establishing condition levels.

Classification—The EAP is always active, however, after detection of an unusual event the condition level may be changed. Based on a technical evaluation of the intelligence detected by SMEs, they may recommend condition levels over a general area or for a specific creek and location. If a specific creek is being assessed the recommendation for condition level and, if appropriate, severity level would be based on facility specific thresholds detailed in an Appendix of the EAP or situations as described in Attachment 1. The condition level and, if possible, the severity level would be set by an appropriate level of personnel, generally Management, based on all intelligence gathered. The decision for a change in condition level is typically made by Management of the EOC or DOC.

Step 3: Notification and Communication

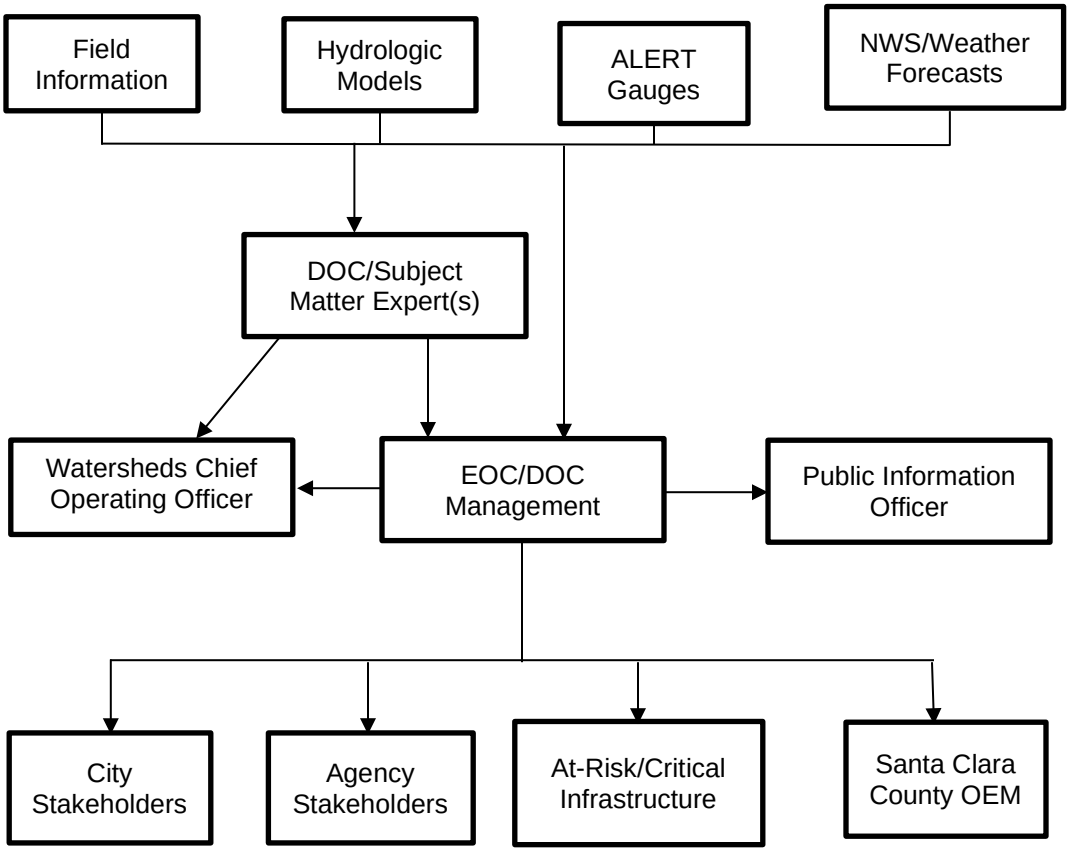
After the condition levels and severity have been determined, appropriately communicating the situation to responsible agencies, staff, and other identified individuals and groups is critical. Depending on the condition level, responsibilities for notifications and who is notified would vary. Often during a monitoring condition, the Emergency Operation Center would not be open or only minimally staffed and the DOC may not yet be activated, however, SMEs and/or Operations may be very active. Valley Water's list of entities that may be provided information or notifications of the condition level and flood severity could include:

- Internal Valley Water staff;
- City Stakeholders;
- County of Santa Clara Office of Emergency Management;
- Other Agency Stakeholders;
- Valley Water Elected Officials;
- Important Facilities and Infrastructure at risk of flooding, such as, schools, medical, governmental facilities or businesses;
- Public (Generally Valley Water is in a support role to the City Stakeholder during events); and
- Impacted businesses and residents (Valley Water is typically in a support role to City Stakeholders).

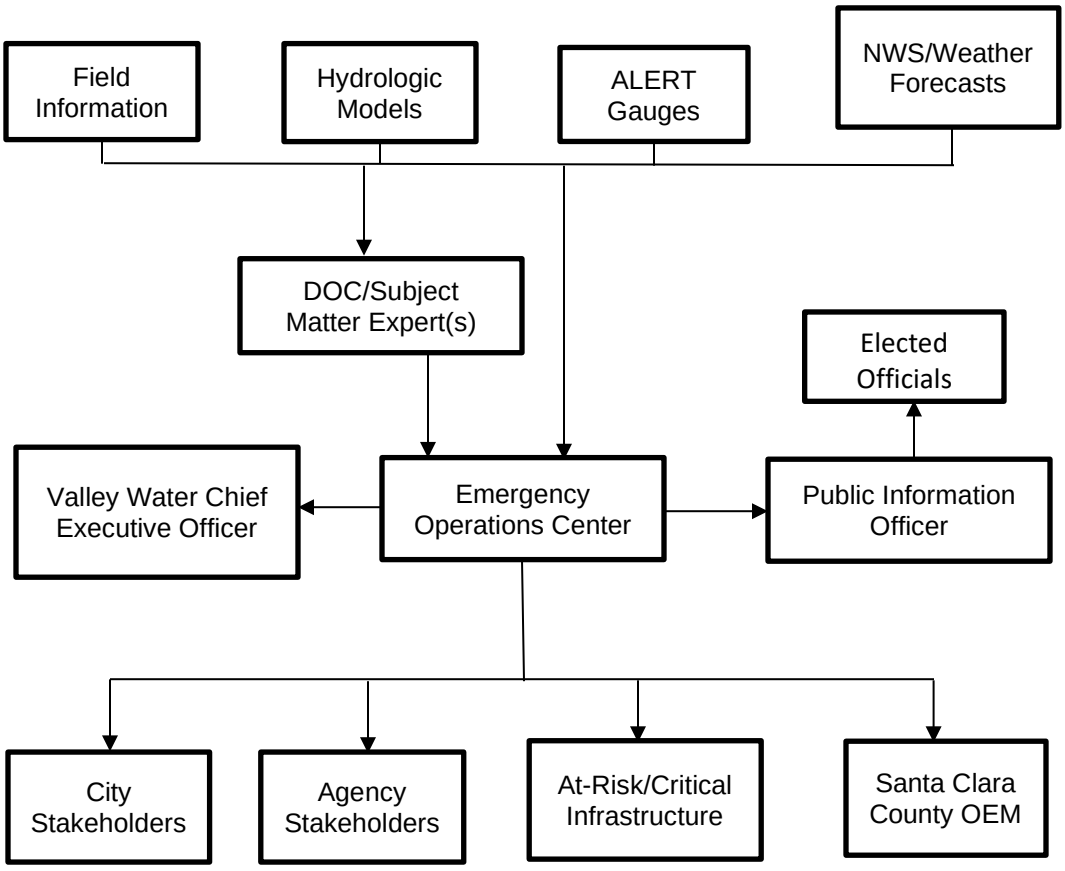
In addition, the condition level and severity should be reflected on the Valley Water website which should strive to be consistent with website information and public notifications provided by the City Stakeholders and NWS.

The following are charts showing the flow of information and notifications for the three flood threat condition levels and the contact list is in Attachment 9 – Emergency Services Contact List and Attachment 10 – Valley Water Emergency Responders Contact List.

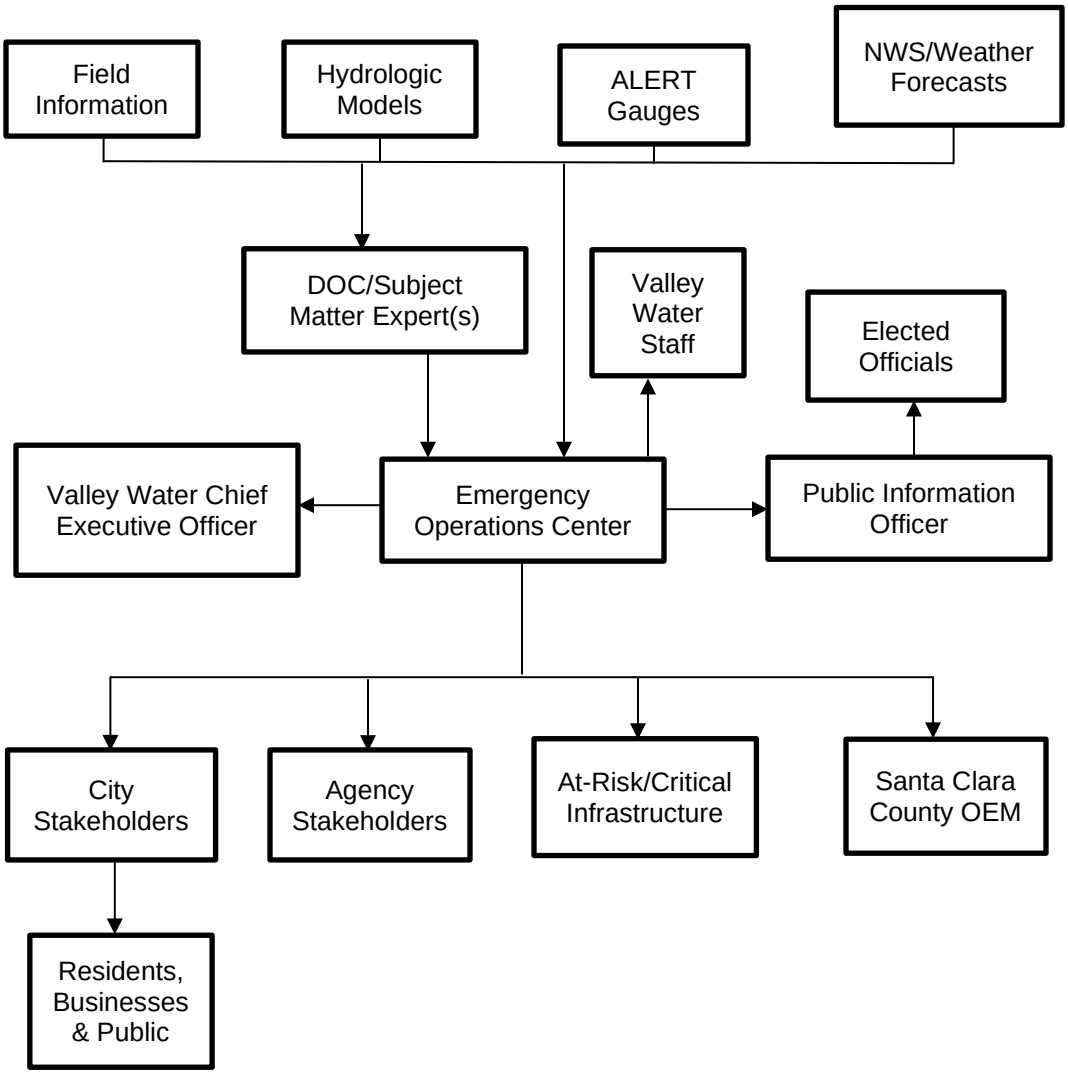
Monitoring Condition Level Information/Notification Flow



Watch Condition Level Information/Notification Flow



Warning Condition Level Information/Notification Flow



External emergency services contacts are listed in Attachment 9 and Valley Water emergency responders are listed in Attachment 10.

Step 4: Actions & Responsibilities

The EAP is considered in the Preparedness condition level as a standard operational practice. After an unusual or emergency event is detected, the DOC/EOC may raise the condition level, if the DOC/EOC has not been activated, the Watersheds Field Operations Unit Manager, Watersheds O&M Engineering Support Unit Manager, or HH&G Unit Manager may classify the event into a higher condition level. If they do raise the condition level, this must be communicated to ES&S and to the Watersheds Chief Operating Officer so that a decision can be made of whether to activate the EOC and to initiate further notifications.

At each condition level, there are actions and responsibilities for Valley Water personnel (described in the Concept of Operations Section). Progressive responsibilities are described in Table 3 and personnel specific responsibilities during and event are described in Attachments 3 through 8.

The Incident Commander or Watersheds Field Operations staff will take action to mitigate the event as appropriate. Examples of emergency remedial actions that could be taken to mitigate the event are provided in Attachment 2 – Emergency Remedial Actions.

Step 5: Termination and Follow-Up

After this EAP has been activated at a level of Monitor, Watch or Warning and then returned to Preparedness, EAP operations must be terminated and follow-up procedures completed.

a. Termination Responsibilities

In a Watch or Warning, the DOC or EOC Director, is responsible for terminating EAP operations and directing that this decision is relayed to each person notified during the original event.

DOC or EOC Management will ensure that all forms for Action Planning, Situational Reports, or others utilized during the event are collected and organized chronologically as determined appropriate. If electronic documentation was utilized, these could be saved on a storage device that could be retrievable or could be printed and saved as a hard copy in the file.

b. Follow-Up Responsibilities

The Operations & Maintenance Engineering Support Unit (if DOC is activated), or the Emergency Services & Security Unit (if EOC was activated), will prepare an After-Action Report (AAR) of the event and will track implementation of appropriate recommendations in the AAR.

The City or other stakeholders will be responsible for damage assessment to homes and businesses and any permit requirements required to reoccupy structures and to promote flood mitigations measures during any reconstruction.

ATTACHMENT 1
Guidance Table for Evaluating Facility During High Flow and Determining the Condition Level

EVENT	SITUATION	CONDITION LEVEL*
Bank Erosion	Erosion scour that is threatening a facility but is stable (i.e., scour is not getting bigger).	Monitor Yellow
	Erosion scour during high flows that is threatening a facility (e.g., a bridge) that if allowed to continue, could result in failure of facility.	Watch Orange
	Erosion scour that is threatening a structure on an adjacent property during high flows.	Watch Orange
	Erosion scour during high flows that has caused or will cause a blockage in the creek that will produce flooding.	Warning Red
Boil/Seepage	Seepage area with clear water discharging less than 1 gallon per minute.	Monitor Yellow
	Seepage area with cloudy water or increasing rate.	Watch Orange
	Seepage area with discharge greater than 10 gallons per minute.	Warning Red
Levee Damage	New cracks in embankment greater than ¼ inch without seepage.	Monitor Yellow
	Slippage or erosion scour of levee bank during high flows.	Monitor Yellow
	Cracks in levee with seepage discharging less than 1 gallon per minute.	Watch Orange
	Cracks in levee with seepage discharging more than 1 gallon per minute.	Warning Red
	Sudden or rapid slumping or scour on levee slopes.	Warning Red
Stage at ALERT or Visual Stream Gauge	Water depth corresponds to 50% capacity.	Monitor Yellow
	Water depth corresponds to 70% capacity.	Watch Orange
	Water depth at or greater than top bank.	Warning Red

EVENT	SITUATION	CONDITION LEVEL*
Downed trees in creek channel	Downed tree, high flows; could collect debris, redirect flow, or move downstream.	Monitor Yellow
	Downed tree, high flows; redirecting flows causing bank scour or obstructing flow creating backwater effect.	Watch Orange
	Downed tree causing flooding.	Warning Red
Bridge/Pier nose blockage	Debris build up that could affect forecast flows or is affecting flows but water receding.	Monitor Yellow
	Debris build up affecting flows with increased flows forecast or more debris collecting, threatening to block flow under bridge/culvert.	Watch Orange
	Debris build up obstructing flow backing up water and will overtop banks or is already flooding.	Warning Red
Embankment overtopping	Creek level is within 1 foot of top of bank.	Watch Orange
	Creek level is overtopping bank.	Warning Red
Sabotage/Vandalism	Facility or levee damage that could adversely impact flows.	Monitor Yellow
	Facility or levee damage that is affecting flows or causing minor leakage in levees or significant levee damage during low flows.	Watch Orange
	Facility damage that is blocking flows that will result in flooding or levee damage that will likely result in failure or has failed during high flows.	Warning Red
Earthquake	Magnitude 6.0 or greater within 50 miles of creek with flows below 70% of capacity and not expected to rise.	Monitor Yellow
	Magnitude 6.0 or greater within 50 miles of creek with flows below 70% of capacity with visible damage to bridges, facilities, or levee movement or cracking.	Watch Orange
	Magnitude 6.0 or greater within 50 miles of creek with damage to levees or facilities that are affecting flows, bridge failure, levee cracking or leaking or movement but minor risk of flooding.	Watch Orange
	Magnitude 6.0 or greater within 50 miles of creek with damage to levees or facilities that are affecting flows, bridge failure, levee cracking or leaking or movement when flows are above 70% of capacity or forecast to be rising.	Warning Red

*Table 1 of EAP describes the flood condition levels.

ATTACHMENT 2
Emergency Remedial Actions

If time and conditions permit, the following emergency remedial actions should be considered for emergency situations. Immediate implementation of these remedial actions may delay, moderate, or prevent flooding. Several of the listed adverse or unusual conditions may occur along the creek at the same time, requiring implementation of several modes of remedial actions. Close monitoring of the creek must be maintained to confirm the success of any remedial action taken along the creek.

BANK EROSION

1. If the erosion is threatening public health and safety and water is no longer rising with stream velocity is low enough, erosion scour may be filled with rock, sandbags, plastic sheeting or materials to prevent further loss of soil.

BOILS OR SEEPAGE BEHIND LEVEE OR FLOODWALL

1. Monitor creek level and seepage flow until seepage stops.

2. Inspect slopes to determine if the entrance to the seepage origination point is visible (whirlpool) and accessible. Attempt to plug entrance with readily available material such as soil, rockfill or plastic sheeting if conditions are safe.

3. Cover the seepage exit area (s) with sand or gravel to hold fine-grained soils in place. Alternatively, construct a sandbag or other type of ring dike around the seepage exit area to retain a pool of water, providing backpressure and reducing the erosive nature of the seepage.

4. Do not drive vehicles or equipment between the seepage area and the creek to avoid collapse of any underground voids.

LEVEE DAMAGE

1. Settlement of crest may be filled with sandbags or earth and rockfill materials in the damaged area to restore freeboard.

2. Sloughing may be stabilized by placing a soil or rock filled buttress against the toe of the sloughing.

EMBANKMENT OVERTOPPING

1. If water level is no longer rising, place sandbags along the low areas of the top of the bank/levee to reduce flow concentration during minor overtopping.

2. Assess whether to recommend reduction in operation of storm drain pump stations that may impact the area of overtopping (e.g., pump stations upstream of overtopping).

DOWNED TREES/BLOCKAGE

1. Where it is safe to do so, clear debris and downed trees that pose a threat to obstructing flow. Clear bridge pier noses and trash racks.

EARTHQUAKE

1. Immediately conduct a visual inspection of the levees if a magnitude 6.0 or greater earthquake occurs within 50 miles of Santa Clara County.

2. If time allows, perform a field survey to determine if there has been any settlement or movement of levees.

3. Visually inspect creek for any movement or damage along the creek including creek banks, outlets, bridges, access ramps.

ATTACHMENT 3
Management Action List

- Management is generally the lead of the DOC/EOC activation and varies depending on activation levels. In the early activation stages, the level of Management Section staffing may be a Unit Manager filling the position of DOC/EOC Director, such as the Watershed Field Ops Manager of Watersheds. At the Watch and Warning activation levels the Management Section staff serving as the EOC Director would likely be a Chief Operating Officer.

- Management Section has the authority to assign resources and implement Action Plans that are developed under their oversight.

- Staff assigned and directed by Management Section may be provided with specified authorities to act as their delegate unless they are filling another EAP personnel position (e.g., Planning/Intelligence).

- Public Information, Liaisons, Logistics, and Finance are part of the Management Section.

PURPOSE:

- Serve in the Management Section roles in the DOC and/or EOC.
- Assure all sections are staffed and assigned adequate authorities to implement the EAP.
- Direct actions to facilitate the EAP.
- Allocate agency resources to address EAP as needed.
- Provide directives and affect emergency orders.
- City makes final decision on the level of their activation and on evacuation orders.

WHO DESIGNATED:

City	Valley Water
• City Manager • Assistant City Manager • Deputy City Manager	• Chief Operating Officer or delegate o Information Technology & Administrative Services o Watersheds o External Affairs o Water Utility

ACTIONS:

	Responsibility/Activity	Stakeholder*
Preparedness (Green)	Conduct Winter Preparedness Workshop.	ES&S is lead.
	Manage assigned Valley Water webpages.	External Affairs and ES&S
	Participate in annual EAP review/exercise/updates; ensure plan is functional and up to date.	Valley Water is lead.
	Ensure EAP and Contact/Roles list is reviewed and updated and provide revisions to Stakeholders.	Watersheds Operations & Maintenance Division
	Provide resources to support on-going activity to support this EAP and mitigation efforts along waterways.	Each Stakeholder is lead for own agency resources.
Monitoring (Yellow)	Activate the EAP for "Monitoring."	Valley Water is lead.
	Determine level of DOC/EOC staffing after consult with ES&S.	Valley Water is lead.
	Assign staff to report and act as liaison to designated EOC facility when directed, and available.	Each Stakeholder responds to designated EOC facility.
	Provide public education.	Each Stakeholder collaborates and is lead to their constituents.
	Provide information to Elected Officials.	Each Stakeholder PIO is lead for own agency.
	Identify conditions for activating next level after consult Planning/Intelligence, Operations, and ES&S.	Valley Water is lead.
Watch (Orange)	Activate the EAP for "Watch."	Valley Water is lead.
	Allow the DOC to manage field response.	Each Stakeholder is lead within agency resources.
	Provide information on impact and available resources to and from respective EOCs.	Each Stakeholder is lead for own agency resources.
	Direct liaison staff to report to designated EOC facility, as available.	EOC Director
	Assess conditions for activating next level.	Valley Water EOC Director
	Confer with legal staff on process for proclaiming a Local Emergency.	City EOC Director is lead.
Warning** (Red)	Activate the EAP for "Warning."	Valley Water is lead.
	Assign staff to report and act as liaison to designated EOC facility when directed, if not already done.	Valley Water is lead.
	Provide public warning and shelter information in multiple languages.	City is lead. County is key support.
	Implement evacuation plans and deploy resources to evacuate.	City is lead.
	Contact City EOC regarding any concerns regarding pump station operations.	Valley Water is lead.
	Proclaim Local Emergency as appropriate.	City EOC Director is lead.

*If only one Stakeholder is noted as lead, all other Stakeholders support the effort.
**If not listed, all Watch responsibilities apply to the Warning level.

ATTACHMENT 4
Planning/Intelligence Action List

- Planning/Intelligence Section documents and communicates Action Plans, maintains other information logs (e.g., Situation Summary form #209) related to the event and provides Subject Matter Experts.

- Staff filling the role are generally engineering or technical staff from Watersheds Stewardship & Planning Division or other technical divisions of Watersheds.

- Critical Subject Matter Experts are staff of HH&G that are responsible for the ALERT gauges, watershed modeling, floodplain mapping and flood/storm forecasts.

PURPOSE:

- Provide hydrological, geological and water way estimated assessments.

- Provide expertise on flood management operations and estimated impacts on critical infrastructure including utilities and transportation.

WHO DESIGNATED:

City Stakeholders	Valley Water
• Public Works • Transportation	• Watersheds Operations & Maintenance Division (O&M) o O&M Engineering Support Unit (O&MES) o Watershed Field Operations Unit (WFOU) • Watersheds Stewardship & Planning Division o Hydrology, Hydraulics & Geomorphology Unit (HH&G) • Watersheds Design & Construction Division

ACTIONS:

	Responsibility/Activity	Stakeholder*
Preparedness (Green)	Provide technical data on mitigation and preparedness measures.	Each Stakeholder is lead for own agency resources.
	Conduct field inspections of creeks and facilities.	O&MES/WFOU/City Stakeholder is lead in own right of way.
	Address property management needs and plans.	O&M, City Stakeholder is responsible.
	Perform mitigation work to reduce flood risk when feasible.	WFOU, VFOU, Design & Construction, City Stakeholder is lead on own property.
	Develop materials and provide training for Field Information Teams.	HH&G is lead.

	Responsibility/Activity	Stakeholder*
Preparedness (Green)	Provide technical floodplain mapping expertise. Provide electronic link to Design Storm (e.g., 10-year, 25-year and/or 100-year) flood maps for creeks included in Appendices if desired and possible.	HH&G
	Maintain equipment, gauges, telemetry, communications systems, etc.	HH&G is lead for Valley Water stream gauges and equipment. City lead for city equipment.
	Develop and maintain computer models of watersheds and creeks.	HH&G
	Participate in Winter Preparedness Workshop.	Valley Water and Stakeholders
	Manage technical information in assigned Valley Water web pages.	HH&G
	Support and Coordinate with FEMA Floodplain Managers who maintain the National Flood Insurance Program Community Rating System certification.	Watersheds and Office of Civic Engagement
	Implement and enforce building codes for building in floodplains.	City is lead.
	Participate in annual EAP review/exercise/updates; ensure plan is functional and up to date.	O&M and all appropriate Stakeholders.
	Manage flood information websites.	HH&G, PIO and City Stakeholder manages own site; points to Valley Water for flow and other related information.
Monitoring (Yellow)	Notify staff of own agency about the increased condition level.	Each Stakeholder is lead for their staff.
	Conduct formal monitoring, communicate via virtual systems; communicate with other EOCs.	Each Stakeholder EOC is lead for own agency resources.
	Communicate risk to EOC personnel in Action Planning meetings.	Each Stakeholder EOC is lead within their agency.
	Report to and act as liaison to designated EOC facility when directed, and available.	Each Stakeholder responds to designated EOC facility as available.
	Review evacuation planning needs.	City is lead.
Watch (Orange)	Communicate risk to EOC representatives.	Each Stakeholder is lead within their agency.
	Notify staff of own agency about the increased condition level.	Each Stakeholder EOC is lead for own agency.
	Provide information to and from respective EOCs, including status reports and briefings.	Each Stakeholder EOC is lead.
	Report to and act as liaison to designated EOC facility when directed, and available.	Each Stakeholder responds to designated EOC facility as available.
	Update computer modeling based on forecast and watershed conditions and, if possible and deemed necessary, provide forecast flood maps to City and, if requested, to other Agency Stakeholders.	HH&G

	Responsibility/Activity	Stakeholder*
	Assess whether local drainage pump stations should modify operations.	HH&G
Warning** (Red)	Report to and act as liaison to designated EOC facility when directed, and available.	Each Stakeholder responds to designated EOC facility as available.
	Communicate risk to EOC representatives in Action Planning meetings.	Each Stakeholder EOC is lead within their agency.
	Update computer modeling based on forecast and watershed conditions and, if possible and deemed necessary, provide forecast flood maps to City and, if requested, to other Agency Stakeholders.	HH&G
	Assess whether local drainage pump stations should modify operations.	HH&G

*If only one Stakeholder is noted as lead, all other Stakeholders support the effort.
**If not listed, all Watch responsibilities apply to the Warning level.

ATTACHMENT 5
Operations Action List

- Staff of Watersheds Operations & Maintenance Division are often the first to respond incidents and activate a DOC and assign an Incident Commander before the EOC is activated.

- Operations Section coordinates deployment of Field Information Teams.

- Operations implements the field activities and other duties assigned in EOC Action Plans.

PURPOSE:

- Operations Section primary role is to respond to storm events and coordinate actions as appropriate between the Stakeholders to prepare and respond to related events. Recommend assignment of resources from their respective agency for comprehensive support to the storm conditions and storm related incidents.

WHO DESIGNATED:

City	Valley Water
EOC Operations Section staff for: • Public Works • Transportation • Utilities • Police • Fire • Parks, Recreation and Neighborhood Services • Emergency Management	• Watersheds Operations & Maintenance Division (O&M) o Operations & Maintenance Engineering Support Unit (O&MES) o Watershed Field Operations Unit (WFOU) o Vegetation Field Operations Unit (VFOU) • Watersheds Stewardship & Planning Division o Hydrology, Hydraulics & Geomorphology Unit (HH&G) • Watersheds Design & Construction Division

ACTIONS:

	Responsibility/Activity	Stakeholder*
Preparedness (Green)	Provide technical data on mitigation and preparedness measures.	Each Stakeholder is lead for own agency resources.
	Jointly discuss property management needs and plans as appropriate.	Each parcel owner is responsible.
	Inventory and Procure Flood Fighting Materials and Equipment.	WFOU/Each Stakeholder is lead for own materials and equipment.
	Participate in Winter Preparedness Workshop.	Valley Water and City Stakeholders are lead.
	Participate in annual EAP review/exercise/updates; ensure plan is functional and up to date.	O&MES

	Responsibility/Activity	Stakeholder*
	Update EAP and Contact/Roles list and provide revisions to Stakeholders.	O&M is lead.
	Update Emergency Communications Plan and notification systems.	City is lead. County is key support for warning.
Monitoring (Yellow)	Notify staff of own agency about the increased condition level.	Each Stakeholder is lead for their staff.
	Communicate risk to EOC representatives.	HH&G/O&M/City Stakeholders
	Respond to and mitigate minor events as needed (examples of remedial actions are listed in Attachment 2); coordinate with each responding agency.	WFOU/City Stakeholder is lead for own materials and equipment.
	Inspect and clean Trash Racks and Bridge Piers.	WFOU
	Stage equipment at localities likely to be affected as needed; coordinated with each responding agency.	WFOU/City Stakeholder is lead for own materials and equipment.
	Report and act as liaison to designated EOC facility when directed, and available.	Each Stakeholder responds to designated EOC facility as available.
	Provide sandbags/flood fighting materials for the public (locations shown in Attachment 7).	VFOU
	Confer with EOC Director on conditions for activating next level.	HH&G/O&M
	Identify location for flood fighting resources for the public (e.g., sandbag locations). May begin planning for establishment of special temporary sandbag locations (Attachment 10).	O&M/VFOU
	Review evacuation planning needs.	City is lead.
Watch (Orange)	Manage information from the Department Operations Center.	O&M/City Stakeholder is lead within their agency.
	Allow the DOC to manage field response.	O&M/City Stakeholder is lead within their agency.
	Notify staff of own agency about the increased condition level.	Each Stakeholder is lead for own agency.
	Confer with responding Agency Stakeholders to determine response coordination needs and resources needs.	O&M/City Stakeholder is equally responsible for cross coordination.
	Respond to and mitigate minor events as needed (examples of remedial actions are listed in Attachment 2); coordinate with each responding agency.	WFOU and City Stakeholder is lead for own jurisdiction.
	Inspect and clean Trash Racks and Bridge Piers.	WFOU
	Stage equipment at localities likely to be affected as needed; coordinated with each responding agency.	WFOU and City Stakeholder is lead for own materials and equipment.
	Provide sandbags/flood fighting materials for the public (locations shown in Attachment 7).	VFOU
	Update location for flood fighting resources for the public and supply additional resources as needed (e.g., sandbag locations). May establish special temporary sandbag sites.	O&M/VFOU
	Deploy and/or activate public notification as appropriate.	City is lead.

	Responsibility/Activity	Stakeholder*
	Provide information on impact and available resources to and from respective EOCs.	O&M and City Stakeholder is lead for own agency resources.
	Provide information to and from respective EOCs, including status reports and briefings.	Each Stakeholder EOC is lead.
	Report and act as liaison to designated EOC facility when directed, as available.	Each Stakeholder responds to designated EOC facility as available.
	Confer with EOC Director on conditions for potential evacuation and shelter support.	City is lead.
Warning** (Red)	Report and act as liaison to designated EOC facility when directed, if not already done.	Each Stakeholder responds to designated EOC facility as available.
	Inspect and clean Trash Racks and Bridge Piers.	WFOU
	Provide sandbags/flood fighting materials for the public (locations shown in Attachment 7).	O&M/VFOU
	Implement evacuation plans and deploy resources to evacuate.	City is lead.
	Coordinate resources through respective EOCs.	Each Stakeholder EOC is lead for own resources.

*If only one Stakeholder is noted as lead, all other Stakeholders support the effort.
**If not listed, all Monitor and Watch responsibilities apply to the Warning level.

ATTACHMENT 6
Field Information Team Action List

- Field Information Teams (FIT) are Valley Water staff who have either volunteered or have been assigned to be deployed in the field to make observations during storm and high flow events. They may be directed in their assignments by Operations, Subject Matter Expert from the Hydrology, Hydraulics & Geomorphology Unit (HH&G), FIT Coordinator (Attachment 10), or by the DOC/EOC Planning/Intelligence Section.

- Field Information Teams preferably have some knowledge or expertise relative to storms and flood events and ideally the location assigned.

- A Field Information Team is composed of at least two people who have been trained and adequately equipped and are generally trained and selected by HH&G.

PURPOSE:

- Visually identify and verify areas on the creek that need attention during storm and flood events.

- Provide real-time on-the-ground information to decision makers in the DOC/EOC.

- Document events with notes, logs, photos, drawing and maps that will be utilized after an event occurs for analysis, public meetings, planning studies, and documentation.

WHO DESIGNATED:

- Valley Water personnel

ACTIONS:

	Responsibility/Activity
Preparedness (Green)	Volunteer to be trained as a Field Information Team (FIT) member.
	Receive approval from immediate supervisor to be a FIT member.
	Receive training as a FIT.
	Provide current contact information to the FIT coordinator.
Monitoring (Yellow)	Report to the duty if called and available and go to assigned location(s). Generally assigned locations to observe the depth of water at the flood hot spots (e.g., Williams Road Trash Rack).
	Report observations to the FIT coordinator, DOC, or EOC.
	Document events as trained utilizing equipment provided.
	Notify FIT Coordinator, DOC, or EOC if staff from another agency is assigned to the same location.

	Responsibility/Activity
Watch (Orange)	Report to the duty if called and available and go to assigned location(s). Generally assigned locations to observe the depth of water at the flood hot spots (e.g., Williams Road Trash Rack).
	Report observations to the FIT coordinator, DOC, or EOC.
	Document events as trained utilizing equipment provided.
	Notify FIT Coordinator, DOC, or EOC if staff from another agency is assigned to the same location.
Warning (Red)	Report to the duty if called and available and go to assigned location(s). Generally assigned locations to observe the depth of water at the flood hot spots (e.g., San Tomas Aquino Creek – Williams Road Trash Rack).
	Report observations to the FIT coordinator, DOC, or EOC.
	Document events as trained utilizing equipment provided.
	Notify FIT Coordinator, DOC, or EOC if staff from another agency is assigned to the same location.

ATTACHMENT 7
Public Information Officer Action List

PURPOSE:

- Provide public communications before, during and after a flood emergency.
- Prepare and coordinate public message between agencies
- Provide public notification.
- Communicate with Elected Officials

WHO DESIGNATED:

City	Valley Water
• Communications Director • Designated city reps	• Office of the Chief of External Affairs o Office of Communications (OC) o Office of Civic Engagement o Office of Government Relations • Watersheds Stewardship & Planning Division o Hydrology, Hydraulics & Geomorphology Unit (HH&G)

ACTIONS:

	Responsibility/Activity	Stakeholder*
Preparedness (Green)	Participate in Winter Preparedness Workshop.	Valley Water Emergency Services and Security Unit is lead and appropriate stakeholders participate.
	Participate in annual EAP review/exercise/updates; ensure public components of EAP are functional and up to date.	OC
	Publish Preparedness Public Outreach (e.g., Winter Preparedness).	OC
	Manage the information provided in the Valley Water website.	OC/HH&G
	Provide public education regarding flooding. Stakeholders should communicate and coordinate on outreach.	OC and City Stakeholder is lead for own agency resources.
	Update Emergency Public Communications Plan and notification systems.	City is lead. County is key support for warning.
Monitoring (Yellow)	Notify staff of own agency about the increased condition level.	Each Stakeholder EOC is lead for their staff.
	Provide public education regarding flooding. Stakeholders should communicate on outreach.	OC and City Stakeholder collaborate and are lead to their constituents.
	Provide information to Elected Officials.	Each Stakeholder PIO is lead for own agency.

	Responsibility/Activity	Stakeholder*
Watch (Orange)	Notify staff of own agency about the increased condition level.	Each Stakeholder EOC is lead for own agency.
	Provide public information in multiple languages.	OC and City Stakeholder collaborate and are lead to their constituents.
	Provide public warning in multiple languages.	City is lead. County is key support.
	Deploy Long Range Acoustic Device or other public notification as appropriate.	City is lead.
	Provide information to Elected Officials.	Each Stakeholder PIO is lead for own agency.
	Activate Joint Information System (JIS) and if appropriate a Joint Information Center (JIC) as appropriate.	City is lead.
	Report to designated Joint Information Center (JIC) when directed, and available.	Each Stakeholder responds to designated JIC as available.
	Communicate with media as needed.	Each Stakeholder PIO is lead for own agency.
Warning (Red)	Provide public information in multiple languages.	OC and City Stakeholder collaborate and are lead to their constituents.
	Provide public warning and shelter information in multiple languages.	City is lead. County is key support.
	Activate JIS/JIC as appropriate to jointly communicate with media.	City is lead.
	Report to designated Joint Information Center (JIC) when directed, and available.	Each Stakeholder responds to designated JIC as available.
	Coordinate resources through respective EOCs.	Each Stakeholder EOC is lead for own resources.

*If only one Stakeholder is noted as lead, all other Stakeholders support the effort.
**If not listed, all Watch responsibilities apply to the Warning level.

Prepare for Winter Storms

Are you flood safe? Santa Clara County has had several damaging floods over the years. It is important that you make the necessary plans to protect your family and property from flooding. Most homeowner's and renters insurance do not cover flood damage; and typically there is a 30-day waiting period for a policy to go into effect.

Floodwater can flow swiftly through neighborhoods and away from streams when creeks "overbank" or flood. Dangerously fast-moving floodwaters can flow thousands of feet away from the flooded creek within minutes.

Don't wait for the damage to happen. Plan ahead to keep your family and property safe.

www.valleywater.org/Floodready

Report street flooding or blocked storm drains or contact your local floodplain manager to learn if your home is in a floodplain:

Campbell	(408) 866-2145	*Palo Alto	(650) 496-6974
*Cupertino	(408) 777-3269		(650) 329-2413‡
	(408) 299-2507‡	*San José	(408) 794-1900
*Gilroy	(408) 846-0444		(408) 277-8956‡
	(408) 846-0350‡	*Santa Clara	(408) 615-3080
*Los Altos	(650) 947-2785		(408) 615-5640‡
	(650) 947-2827‡	Saratoga	(408) 868-1245
Los Altos Hills	(650) 941-7222		(408) 299-2507‡
Los Gatos	(408) 399-5770	*Sunnyvale	(408) 730-7400
*Milpitas	(408) 586-2600	*Unincorporated	(408) 494-2750 (East Yard)
	(408) 586-2400‡		(408) 366-3100 (West Yard)
Monte Sereno	(408) 354-7635		(408) 683-1240 (South Yard)
	(408) 299-2507‡		
*Morgan Hill	(408) 776-7333		
	(408) 779-2101‡		
*Mountain View	(650) 903-6329	Santa Clara Valley Water District	(408) 630-2378
	(650) 903-6395‡		

*Participating CRS communities ‡ Use this number after business hours

WHAT TO DO

Protect your family and property from flooding

before

- Consider flood insurance. To get insured, call **1-888-379-9531** or go to **www.floodsmart.gov**.
- Prepare a family emergency plan and emergency kit for your home and car with supplies. Store important documents and valuables in a safe deposit box. For more information, visit **www.ready.gov/make-a-plan**
- Designate a family meeting spot.
- Examine your house for cracks in the foundation, exterior walls and small openings around pipes. Seal them.
- Build a sandbag barrier to block shallow water from entering structures. Use of sandbag guidelines. **valleywater.org/sandbags/**
- Place valuables in a high place (2nd floor, if possible) and move vehicles to higher ground.
- Keep rain gutters and drainage channels free of debris.

Download the free Flood App!
Visit **www.redcross.org/prepare/mobile-apps/flood**
Text **"GETFLOOD"** to **90999**
or search **"Red Cross Flood"** in the Apple App Store or Google Play

during

- Be aware that flash flooding can occur. If a flood is imminent, avoid low-lying areas and seek shelter in the highest area possible.
- Tune to radio station KCBS (740 AM) for emergency information.
- If advised to evacuate, do so immediately. Turn off utilities at the main switches or valves. Disconnect electrical appliances. Do not touch electrical equipment if you are wet or standing in water.
- DO NOT drive into flooded areas. If floodwaters rise around your car, abandon the car and move to higher ground. A foot of water will cause many vehicles to float. Two feet of rushing water can carry away most vehicles, including SUVs and pick-ups.

ALERTSCC
SANTA CLARA COUNTY EMERGENCY ALERT SYSTEM
Sign up for the free "Alert SCC" Santa Clara County emergency alert system at **www.alertscc.com.**

READYSCC
SANTA CLARA COUNTY
Download the ReadySCC app to get emergency notifications, create your emergency plan, follow a detailed guide for preparedness and more.

after

- Listen for news reports on whether the community's water supply is safe to drink.
- Never drive through flooded roadways. Play it smart, play it safe. Whether driving or walking, any time you come to a flooded area, **Turn Around Don't Drown®**. **bit.ly/2hBE7WD** Don't walk, swim, drive or play in floodwater.
- DO NOT walk in floodwaters. Water may be contaminated from oil, gasoline or raw sewage. Underground or downed power lines may also have electrically charged the water. Stay away from downed power lines and report them to your power company
- Return home only when authorities indicate it is safe.

Santa Clara Valley Water District

CONTACT US

See trash or downed trees in a creek? Want to report dumping or other problems? Let us know. Use our Access Valley Water customer request and information system to submit requests directly to a water district staff person. Go to **Valleywater.org** or download the **Access Valley Water App**.

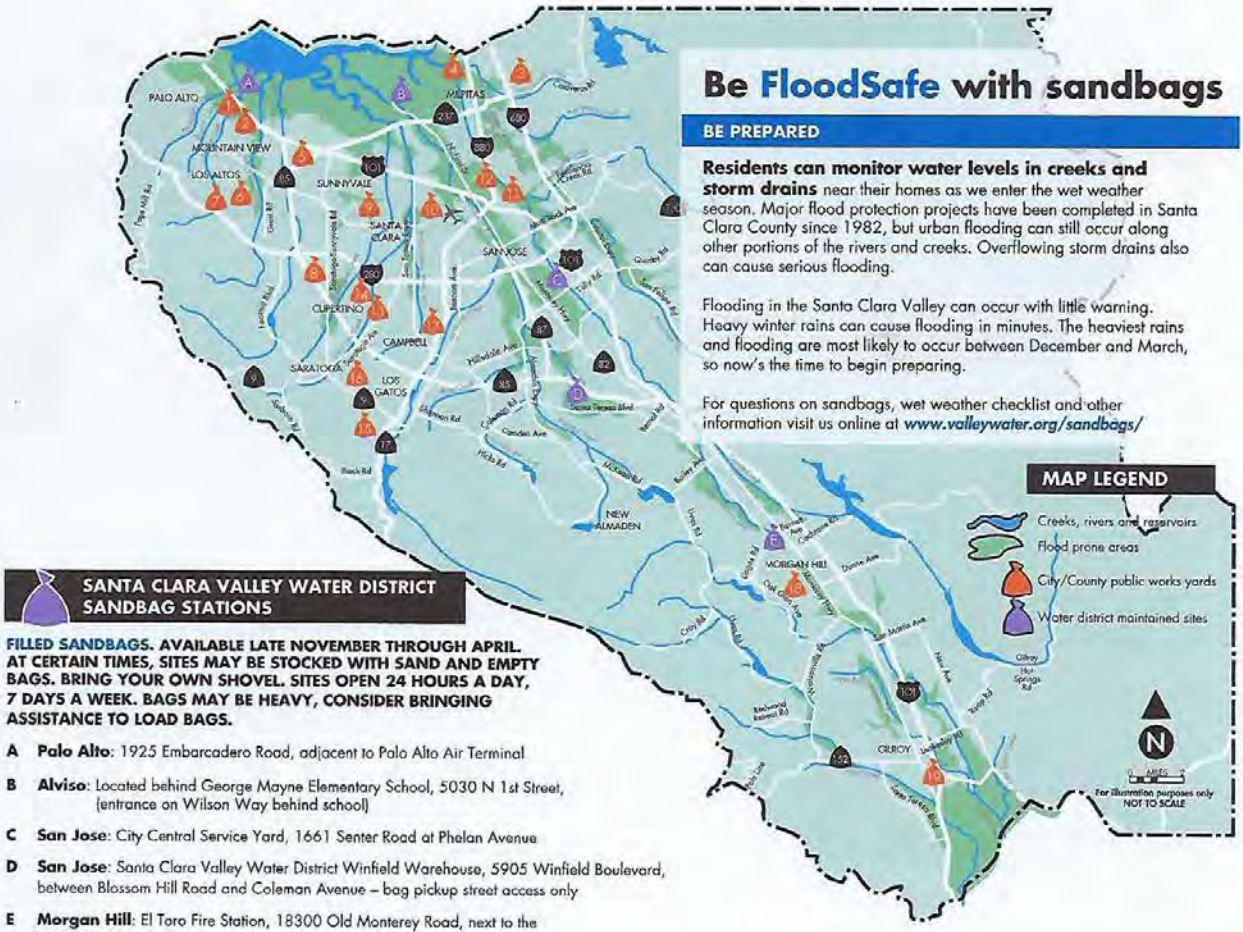
Be FloodSafe with sandbags

BE PREPARED

Residents can monitor water levels in creeks and storm drains near their homes as we enter the wet weather season. Major flood protection projects have been completed in Santa Clara County since 1982, but urban flooding can still occur along other portions of the rivers and creeks. Overflowing storm drains also can cause serious flooding.

Flooding in the Santa Clara Valley can occur with little warning. Heavy winter rains can cause flooding in minutes. The heaviest rains and flooding are most likely to occur between December and March, so now's the time to begin preparing.

For questions on sandbags, wet weather checklist and other information visit us online at ***www.valleywater.org/sandbags/***



SANTA CLARA VALLEY WATER DISTRICT SANDBAG STATIONS

FILLED SANDBAGS. AVAILABLE LATE NOVEMBER THROUGH APRIL. AT CERTAIN TIMES, SITES MAY BE STOCKED WITH SAND AND EMPTY BAGS. BRING YOUR OWN SHOVEL. SITES OPEN 24 HOURS A DAY, 7 DAYS A WEEK. BAGS MAY BE HEAVY, CONSIDER BRINGING ASSISTANCE TO LOAD BAGS.

- **A** **Palo Alto**: 1925 Embarcadero Road, adjacent to Palo Alto Air Terminal
- **B** **Alviso**: Located behind George Mayne Elementary School, 5030 N 1st Street, (entrance on Wilson Way behind school)
- **C** **San Jose**: City Central Service Yard, 1661 Senter Road at Phelan Avenue
- **D** **San Jose**: Santa Clara Valley Water District Winfield Warehouse, 5905 Winfield Boulevard, between Blossom Hill Road and Coleman Avenue – bag pickup street access only
- **E** **Morgan Hill**: El Toro Fire Station, 18300 Old Monterey Road, next to the Union Pacific Railroad overpass above Monterey Highway

OTHER SOURCES OF UNFILLED SANDBAGS

BAGS AND SAND. MUST BRING SHOVEL. EMPTY BAGS SUPPLIED BY THE WATER DISTRICT. CONSIDER BRINGING ASSISTANCE TO FILL AND LOAD BAGS. PROOF OF RESIDENCY MAY BE REQUIRED AT SOME SITES. CHECK INDIVIDUAL SITES FOR OPERATING HOURS.

1. **Palo Alto**: Mitchell Park, 600 E. Meadow Drive near baseball field. Bags and sand (available 24/7). (650) 496-6974.
2. **Palo Alto**: Rinconada Park Tennis Court Parking Lot (intersection of Hopkins Avenue and Newell Road). Filled bags (available 24/7). (650) 496-6974.
3. **Milpitas**: Sport Center Parking Lot at 1325 E. Calaveras Blvd. Filled bags (available 24/7). 408-586-2600, after hours: (408) 586-2399.
4. **Milpitas**: Hall Memorial Park Parking Lot, Cross Streets La Honda and Hermina St. Bags and sand (available 24/7). (408) 586-2600.
5. **Mountain View**: Public Services, 231 N. Whisman Rd. Bags and sand at parking lot (available 24/7). Must bring shovel. (650) 903-6395.
6. **Los Altos**: Municipal Service Center, 707 Fremont Ave. at McKenzie Park parking lot. Bags and sand (available 24/7). (650) 947-2785.
7. **Los Altos Hills**: Corporation Yard, 27500 Purissima Rd. at Little League Field. Must bring bag and shovel (available 24/7). (650) 941-7222
8. **Cupertino**: City Corporation Yard, 10555 Mary Ave. Bags and sand outside the gate (available 24/7). Must provide own shovel. (408) 777-3269.
9. **Sunnyvale**: Corporation Yard, 221 Commercial St. at end of California St. Filled bags (available 24/7). (408) 730-7566, after hours: (408)730-7490.
10. **Santa Clara**: City Corporation Yard, 1700 Walsh Ave. Filled bags at front door (available 24/7). (408) 615-3080, after hours: (408) 615-5640.
11. **San Jose**: City Mabury Yard, 1404 Mabury Rd. Bags and sand provided. (408) 277-4373.
12. **San Jose**: County East Yard, 1505 Schallenberger Rd., (408) 494-2750.
13. **San Jose**: County West Yard, 11030 Doyle Rd. Bags and sand outside gate (available 24/7). Must bring shovel. (408) 366-3100, after hours: (408) 299-2507.
14. **San Jose**: City West Yard, 5090 Williams Rd., Filled bags (available 24/7) outside gate. (408) 343-3100.
15. **Los Gatos/Monte Sereno**: 41 Miles Ave. at Balzer Field parking lot (Monte Sereno citizens pick up at Los Gatos site). Bags and sand (available 24/7). (408) 399-5770, after hours: (408) 354-8600.
16. **Saratoga**: Corporation Yard, 19700 Allendale Ave., near Post Office. Self-fill bags. Bags and sand provided outside gate (available 24/7). (408) 868-1245.
17. **Campbell**: Serivce Center, 290 South Dillon Ave. Bags and sand available Monday through Friday from 7 a.m. - 3 p.m. Must bring shovel. (408) 866-2145.
18. **Morgan Hill**: City Corporation Yard, 100 Edes Ct. Bags and sand outside gate (available 24/7). Must bring shovel. (408) 776-7333.
19. **Gilroy**: Corporation Yard, 613 Old Gilroy St. Bags and sand in the parking lot behind fire station (available 24/7). Must bring shovel. (408) 846-0370.

GUIDANCE FOR PUBLIC COMMUNICATIONS DELIVERY METHODS (City Stakeholder Is Lead)

1. ALERT SCC and IPAWS if warranted.

2. Deploy Long Range Acoustic Device if available and appropriate.

3. MEDIA NEWS RELEASE including ethnic media.

4. RADIO & TV STATIONS: Provide specific broadcast information.

5. SOCIAL MEDIA: Post message to NEXTDOOR, FACEBOOK, TWITTER, CITY WEBSITE, VALLEY WATER WEBSITE.

6. HOMELESS ENCAMPMENTS: Walk encampments in teams of 2 or more and share warnings.

Contact and provide downloadable flyer:

1. Inform administrators at At-Risk or Critical Facilities (e.g., SCHOOLS, CHURCHES, MEDICAL FACILITIES, TECHNOLOGY PARKS, etc.).

2. Contact managers at MOBILE HOME PARK OFFICES.

3. Contact leaders at Chamber of Commerce, Downtown Associations to engage BUSINESS DISTRICT.

4. Place SANDWICH BOARD SIGNS ON MAJOR CORNERS: **Be alert to the likelihood of flooding in 24-72 hours**.

5. KNOCK-AND-TALK in at-risk neighborhoods. Staff prepared with numbers to call and basic info if asked.

6. Implement NO PARKING zones and, if necessary, detours.

ATTACHMENT 8
Elected Officials Action List

PURPOSE:

- Coordinate with constituents.
- Check with respective PIO/Liaison or EOC Director on conditions.
- Coordinate information through the PIO/Liaison.

WHO DESIGNATED:

City	Valley Water
• City Councilmember	• Board of Directors

ACTIONS:

	Responsibility/Activity	Stakeholder*
Preparedness (Green)	Participate in Winter Preparedness Workshop as requested.	Valley Water is lead.
	Provide resources to support on-going activity to support this EAP and mitigation efforts along waterways.	Each Stakeholder is lead for own agency resources.
Monitoring (Yellow)	Communicate with PIO personnel regarding situation and public/media messages.	Each Stakeholder is lead for own agency resources.
	Respond to constituents.	Each Stakeholder is lead for own agency resources.
	Report any constituent concerns or observations to PIO liaison.	Each Stakeholder is lead for own agency resources.
Watch (Orange)	All Monitoring Responsibilities/Actions	Each Stakeholder is lead for own agency resources.
	Communicate with PIO at designated facility for more detailed briefing when requested, as available.	Each Stakeholder is lead.
Warning (Red)	All Watch Responsibilities/Actions	Each Stakeholder is lead for own agency resources.
	Respond to media and constituents with agreed upon messages.	Each Stakeholder is lead.
	Proclaim Local Emergency as appropriate.	City is lead.
*If only one Stakeholder is noted as lead, all other Stakeholders support the effort.		

CONFIDENTIAL—Withheld in Public Document

ATTACHMENT 9
Emergency Services Contact List

CONFIDENTIAL

CONFIDENTIAL—Withheld in Public Document

ATTACHMENT 10
Valley Water Emergency Responders Contact List

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL—Withheld in Public Document

ATTACHMENT 11
Available Resources

CONFIDENTIAL

CONFIDENTIAL—Withheld in Public Document

ATTACHMENT 12
Equipment List

CONFIDENTIAL

ATTACHMENT 13
Web-Based Data Sources

RAIN GAUGES:

- Rain Gauge Site – http://alert.valleywater.org
- Waldon West (formerly Valley Christian) – http://alert.valleywater.org/info/1509info.php
- West Yard – http://alert.valleywater.org/info/1511info.php

STREAM FLOW STATIONS:

- Stream Flow Station Site – http://alert.valleywater.org
- San Tomas @ Williams Rd – http://alert.valleywater.org/reports/sgi_report.php?id=5024,5024
- San Tomas at Mission Avenue – http://alert.valleywater.org/reports/sgi_report.php?id=5122
- El Camino Storm Drain – http://alert.valleywater.org/reports/sgi_report.php?id=1547
- Sunnyvale East Channel U/S Hwy 101 – http://alert.valleywater.org/reports/sgi_report.php?id=5074
- Calabazas at Rainbow Dr – http://alert.valleywater.org/reports/sgi_report.php?id=5031,5031
- Calabazas at Wilcox HS – http://alert.valleywater.org/reports/sgi_report.php?id=5026,5026
- Saratoga Creek – https://waterdata.usgs.gov/ca/nwis/uv?11169500
- Saratoga at Pruneridge – http://alert.valleywater.org/reports/sgi_report.php?id=5025

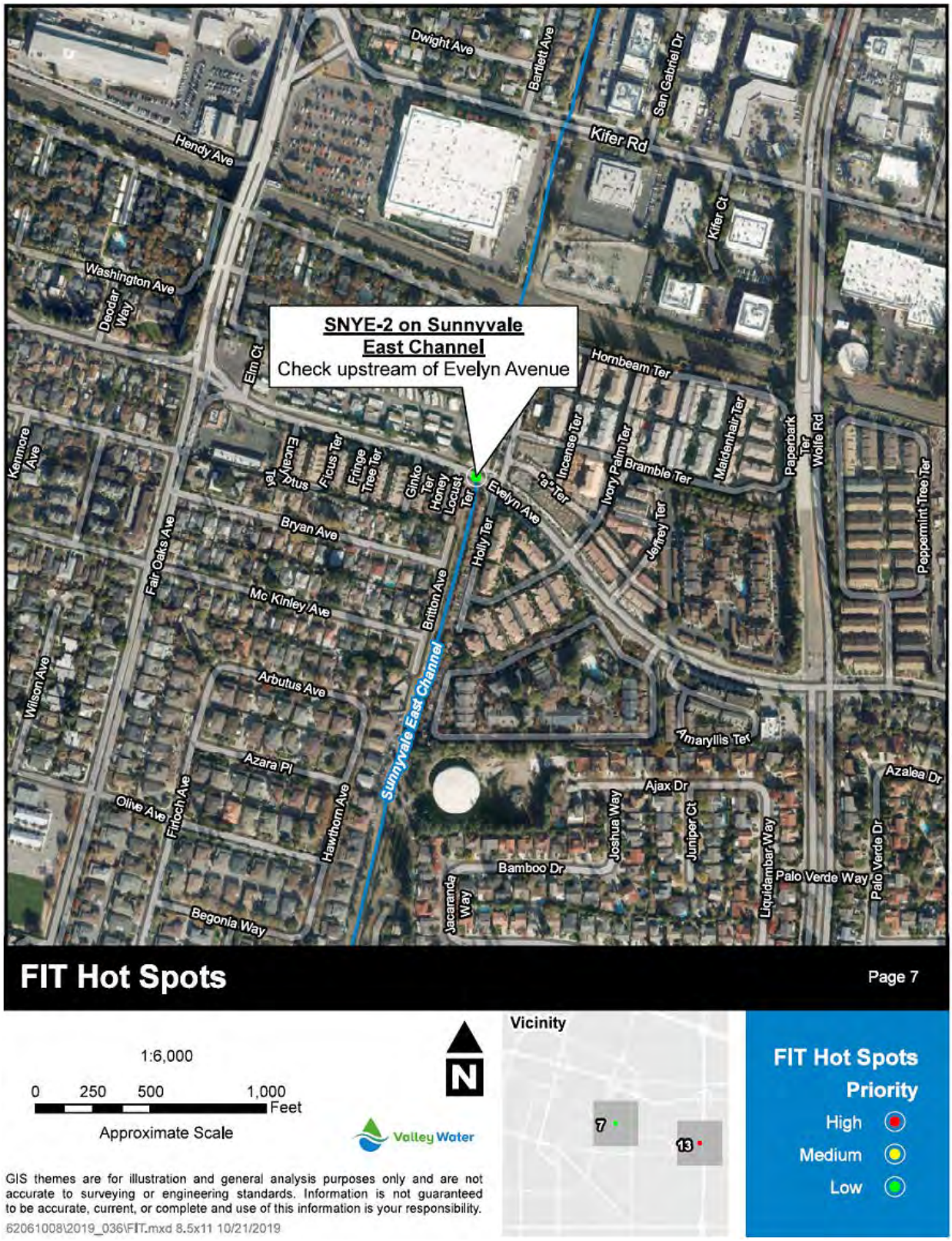
OTHER SITES:

- Valley Water Homepage – http://valleywater.org/
- Valley Water Submit a Request – https://clients.comcate.com/newrequest.php?id=80
- Report Blockages/Flooding – https://www.valleywater.org/floodready/report-creek-blockages-local-flooding
- Valley Water Flood Watch – https://gis.valleywater.org/SCVWDFloodWatch/
- Valley Water Flood Severity – https://gis.valleywater.org/SCVWDFloodWatch/report.html?ALERTID=2050
- NWS Flood Severity – https://water.weather.gov/ahps2/index.php?wfo=mtr
- Valley Water Flood Protection Resources – https://www.valleywater.org/floodready
- Valley Water ALERT Map – https://gis.valleywater.org/alert/
- Valley Water ALERT System Real-Time Data – http://alert.valleywater.org/index.php
- Sandbags – https://www.valleywater.org/floodready/sandbags
- FEMA Flood Map Search – https://msc.fema.gov/portal/search
- FEMA NIMS ICS Forms – https://training.fema.gov/icsresource/icsforms.aspx

WEATHER:

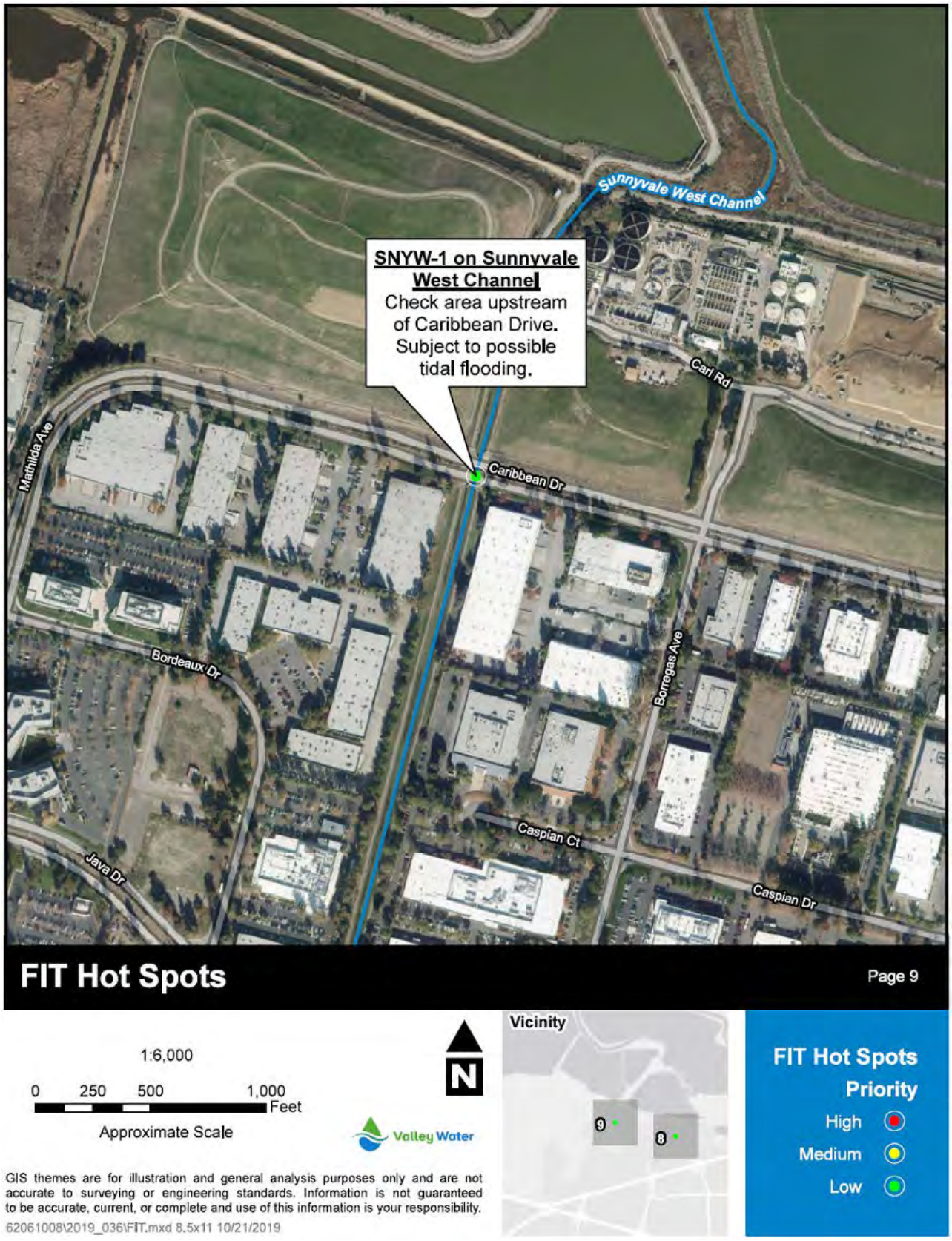
- NWS Watch, Warning, Advisory – https://www.spc.noaa.gov/products/wwa/
- NWS Forecasts – https://graphical.weather.gov/sectors/pacsouthwest.php

ATTACHMENT 14
Field Information Team Hot Spots



ATTACHMENT 14 (Continued)
Field Information Team Hot Spots

ATTACHMENT 14 (Continued)
Field Information Team Hot Spots



ATTACHMENT 14 (Continued)
Field Information Team Hot Spots

GIS themes are for illustration and general analysis purposes only and are not accurate to surveying or engineering standards. Information is not guaranteed to be accurate, current, or complete and use of this information is your responsibility.

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ATTACHMENT 14 (Continued)
Field Information Team Hot Spots

FIT Hot Spots

Page 10

1:6,000

0 250 500 1,000 Feet

Approximate Scale

N

Valley Water

Vicinity

10

FIT Hot Spots Priority

- High
- Medium
- Low

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ATTACHMENT 14 (Continued)
Field Information Team Hot Spots

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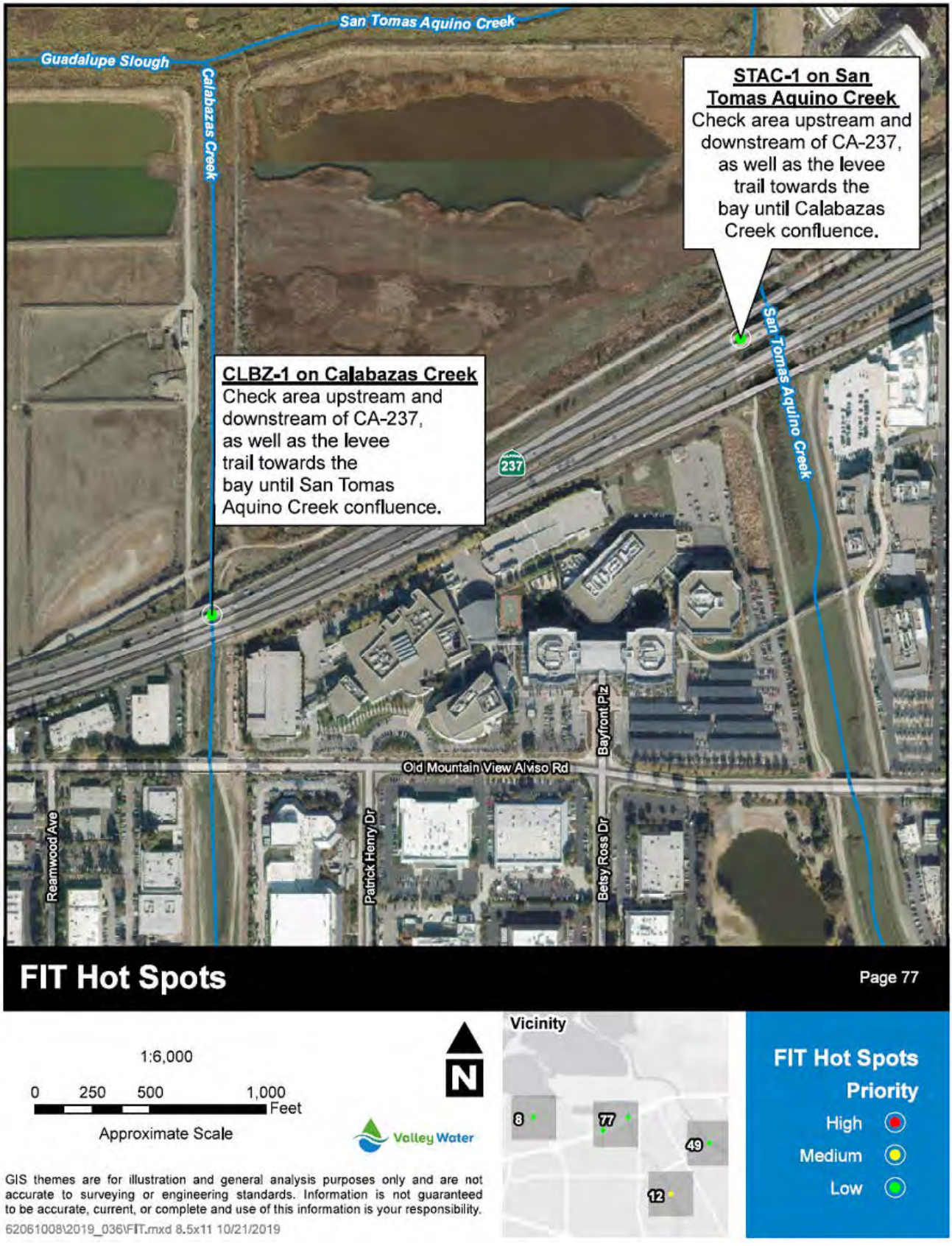
ATTACHMENT 14 (Continued)
Field Information Team Hot Spots



ATTACHMENT 14 (Continued)
Field Information Team Hot Spots

FIT Hot Spots

Page 11

1:6,000

0 250 500 1,000 Feet

Approximate Scale

N

Valley Water

GIS themes are for illustration and general analysis purposes only and are not accurate to surveying or engineering standards. Information is not guaranteed to be accurate, current, or complete and use of this information is your responsibility.

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FIT Hot Spots Priority

- High
- Medium
- Low

APPENDIX A
San Tomas Aquino Creek

A. PURPOSE

This Appendix to the Emergency Action Plan for Severe Storms and Flooding in West Valley Watershed (EAP) is meant to provide additional guidance specific to San Tomas Aquino Creek. It will not duplicate information already in an Emergency Operations Plan or the EAP, but will provide specific information and guidance for San Tomas Aquino Creek.

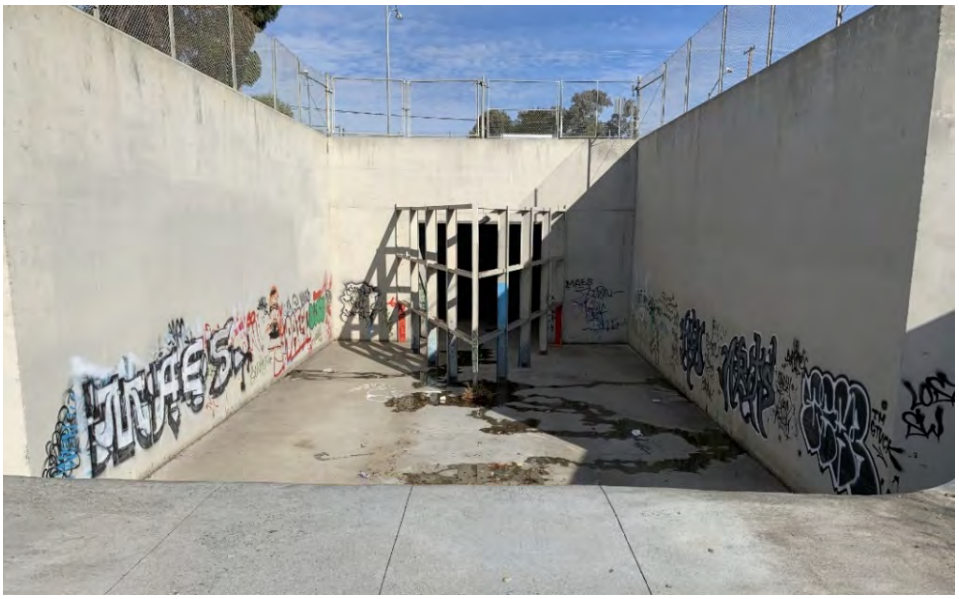
B. SAN TOMAS AQUINO CREEK DESCRIPTION

The San Tomas Aquino Creek begins in unincorporated Santa Clara County in the hills above the City of Saratoga and flows through portions of the cities of Saratoga, Monte Sereno, Campbell, San José, Santa Clara and Town of Los Gatos. Saratoga Creek joins San Tomas Aquino Creek in the City of Santa Clara before it discharges into the Guadalupe Slough and finally San Francisco Bay at the northern end of the West Valley Watershed. It drains a watershed that is approximately 45 square miles in extent on the eastern edge of the West Valley Watershed. Figure 2A is a map of the creek that shows the cities/Town and FEMA mapped 100-year (1%) floodplain.

Of the approximate 25 miles of creek, about 68% (17 miles) are modified. Upstream of Highway 85, San Tomas Aquino Creek is a relatively unmodified natural channel with significant vegetation and homes along the banks. As it enters the alluvial plain downstream of Highway 85 the channel becomes more modified with downstream areas straightened and hardened. Valley Water owns fee-title or some form of easement on nearly all of the reach of creek downstream of Highway 85. Following are reach descriptions of San Tomas Aquino Creek downstream of Highway 85:

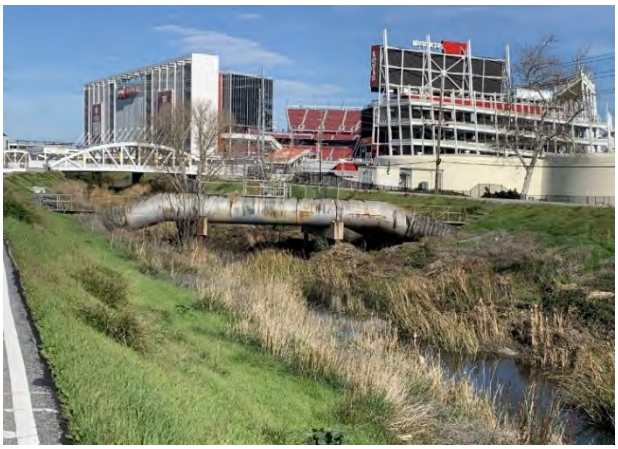
- **Highway 85 to McCoy Avenue** – Valley Water has fee title property ownership along the tree lined earthen channel that has sections of sacked concrete levees and floodwalls. The land use adjacent is a little more than 50% residential and the remainder are two Campbell Union School District parcels (Westmont High School and Forest Hill Elementary School). There is good access on the east bank throughout this reach.

- **McCoy Avenue to Williams Road** – Valley Water owns fee title or easement along this approximate 3-mile reach of trapezoidal concrete channel. Most of the channel runs along San Tomas Expressway with residential along the opposite bank. Access would primarily be from adjacent roadways or from sections that have a maintenance road. Valley Water operates an injection well parcel along San Tomas Aquino Creek where the channel alignment meets San Tomas Expressway and a stream gauge (http://alert.valleywater.org/info/2050info.php) about 700 feet upstream of Williams Road. The channel passes beneath several arterial roads that include Campbell Avenue and Hamilton Avenue.



- **Williams Road to Downstream of Cabrillo Avenue** – Valley Water owns a maintenance easement for hydraulic conveyance on this approximate 3.7-mile reach of concrete box culvert that runs under San Tomas Expressway. Santa Clara County is the owner of the property and is responsible for operating and maintaining San Tomas Expressway along this reach. The box culvert varies in size from 13.5'x15.0' to 15.0'x18.0' and daylights to become a u-frame concrete channel in three stretches of from 800' to 1000' in length between Forbes Avenue and Homestead Road, Benton Street and El Camino Real, and El Camino Real and Cabrillo Avenue. Maintenance access in this reach is only possible at the entrance in order to clean the trash rack and the daylighted sections in the middle of San Tomas Expressway.

- **Downstream of Cabrillo Avenue to Caltrain** – The concrete box culvert ends about 800’ downstream of Cabrillo Avenue and becomes a trapezoidal concrete channel for 0.4 miles to the Caltrain crossing. Saratoga Creek flows into San Tomas Aquino Creek at a grade control drop structure about 250’ upstream of Monroe Street. Valley Water owns fee title throughout this reach except at the Caltrain crossing. A pedestrian/bicycle path on the west bank and a maintenance road (somewhat depressed for a short section) on the east bank provide good access for visual inspections and maintenance.



- **Caltrain to Guadalupe Slough** – Valley Water owns fee title through most of this reach. This reach is primarily trapezoidal earthen channel with levees, floodwall (upstream of Highway 101) and sections of concrete lining under the bridges at Walsh Avenue, Central Expressway, Scott Boulevard, and Highway 101. An adjacent pedestrian/bicycle path continues throughout this reach on the west bank and connects to the Bay Trail on the north side of Highway 237. The path and the maintenance road on the east bank between Highway 101 and Highway 237 provide good access for inspections and maintenance. The lower (northern) portions of this reach is influenced by tides from San Francisco Bay up to about Great America Parkway. Downstream of Highway 237 the levee to Harvey Marsh has been breached, but poses no flood threat. Major creek crossings include Hetch-Hetchy pipelines, Central Expressway, Highway 101, and Highway 237. An ALERT stream gauge is located at Mission Boulevard and there are existing visual stream gauges at Central Expressway, Mission Boulevard and Great America Parkway.

C. SAN TOMAS AQUINO CREEK FLOOD THREATS

San Tomas Aquino Creek drains a total of about 45 square miles before emptying into Guadalupe Slough and then San Francisco Bay. Over half of the watershed drains the highly urbanized valley floor where the creek has been significantly straightened and modified.

The creek has capacity, though possibly with inadequate freeboard, to convey the existing 100-year (1%) flow rates of about 4,100 cubic feet per second (cfs) upstream of Campbell Avenue and 7,600 cfs downstream of Highway 101 (design 100-year flow is 9,100 cfs), but has inadequate capacity in the reaches between those roads. It is estimated that nearly 2,600 parcels and 830 acres are subject to flooding during a 100-year event (Figure 2A shows the FEMA estimated flood area that may differ from actual flooding). The total estimated losses due to 100-year flood event (including business interruptions) exceeds $800 million.

The most significant flood threat and typically the first breakout point is between Forbes Avenue and Homestead Road. This reach, which includes the box culvert under San Tomas Expressway, only has capacity for between a 10-year (10%) flow of 2,500 cfs and 50-year (2% flow of 3,500 cfs) event. The overbank spills flow north on both sides of San Tomas Expressway and end up ponding behind the Caltrain tracks. Some floodwaters may get past the tracks and continue north, but most will eventually reenter the channel. Other deeper ponding areas occur south of Interstate 280, Homestead Road and El Camino Real. The following is a list of the overbank spills along this reach of channel during a 100-year event and Figure 1A shows the spills:

- 10 cubic feet per second (cfs) to the west at Campbell Avenue,
- 250 cfs to the east at Hamilton Avenue,
- 270 cfs to the west at Payne Avenue, and
- 460 cfs to the west and 630 cfs to the east at the daylight section of culvert near Homestead Road.

FIGURE 1A
San Tomas Aquino Creek 100-Year Spill Map

Flooding is expected into an office park to the east of the creek between Scott Boulevard and Highway 101 when Saratoga is contributing to already high flows in San Tomas Aquino Creek. And a low east bank near Great America Parkway could overtop and flood a parking area to the east.

In addition to the flooding caused by inadequate capacity, storm runoff unable to discharge into a channel already at capacity may contribute to the flooding. In the area around the box culvert under San Tomas Expressway runoff water not able to discharge into the culvert already at capacity would combine with the overland flows. And in the downstream reaches, north of Caltrain crossing to Highway 237 where there are levees and floodwalls, high water may not allow runoff to discharge into the creek.

The City of Santa Clara operates six storm water pump stations from Mission Boulevard to Highway 237 to pump runoff into San Tomas Aquino Creek when the water elevation in the creek does not allow gravity flow (Table 1A). All six pump stations operate with local automatic motor controls that automatically start when needed. Information about conditions at the pump stations are transmitted to the City's utility operations center which is staffed 24 hours every day. In addition, there is a small pump station operated by Paramount Great America. The maximum discharge of all pump stations combined is 451 cubic feet per second (CFS). During high creek flows the additional pumping could add up to another 4%-5% of flow to already high flows and could increase risk of overtopping or add to flooding that may be occurring. In a situation where Flood Severity Levels are Moderate or Major (Table 3A), or when the stage at the Mission Boulevard ALERT stream gauge is 16.5 feet or higher, consideration should be given to modifying pump station operations. The table below provides some information on each pump station:

TABLE 1A
Storm Water Pump Stations

PUMP STATION NAME	PUMPS	MAXIMUM DISCHARGE Cubic Feet per Second (CFS)
Freedom Circle 3905 Freedom Circle	3 – 75 HP & 1 – 35 HP	78 cfs
Lake Santa Clara 4268 Lake Santa Clara Drive	2 – 35 HP	13 cfs
Rambo 4526 Lakeshore Drive	3 – 150 HP & 1 – 10 HP	136 cfs
Gianera 2339 Gianera Street	2 – 60 HP, 2 – 77 HP & 1 – 10 HP	40 cfs
Santa Clara Golf Course 2501 Stars and Stripes Drive	3 – 32 HP	25 cfs
Westside Retention Basin 2900 Old Mountain View-Alviso Road	3 – 150 HP & 2 – 25 HP	144 cfs
Paramount Great America 4701 Great America Parkway	2	15 cfs

In addition to the flood threats described above, the potential exists for unforeseen flood issues. For example:

- Levees between Scott Boulevard and Highway 237 pose a threat during high flows because of potential for structural failures or

- Blockages due to trash and debris in the channel may result in overtopping especially in areas with inadequate freeboard.

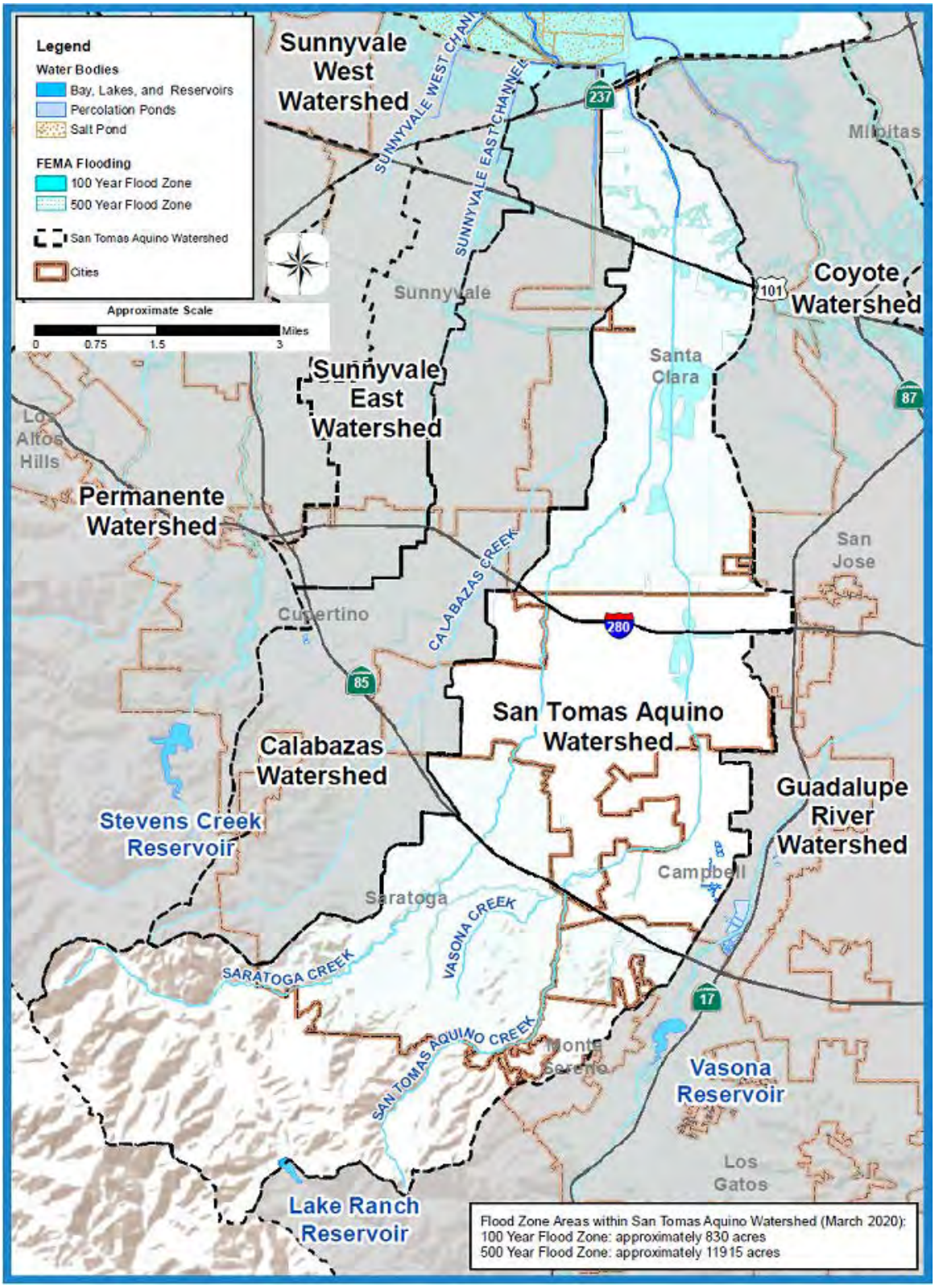


FIGURE 2A
San Tomas Aquino Watershed & FEMA Flood Map
(500-yr flood zone may not reflect actual conditions)

D. FLOOD EVENT DETECTION

Several detection methods can be utilized for San Tomas Aquino Creek that include weather forecasts, hydrologic/hydraulic modeling, Automated Local Evaluation in Real Time (ALERT), other stream/precipitation gauge systems, and field observations. Some of these are available through websites that are listed in Attachment 13.

1. Weather Forecasts

The National Weather Service (NWS) provides weather (e.g., precipitation) forecasts in advance of a storm events. Valley Water also contracts with a service provider for enhanced forecasting in the regional area.

During storm events, the NWS will host webinars with affected agencies and utilities to discuss forecasts and share information to enhance regional preparedness. The Valley Water and Agency Stakeholders can participate in these webinars and share all current information. In addition, the NWS maintains websites (Attachment 13) that provide flood threat information and they will issue public notices of forecasted flood threats on local television and radio programming if the level of threat is high.

2. Hydrologic/Hydraulic Modeling

Based on the weather forecast and other real-time data, Valley Water may utilize computer modeling of San Tomas Aquino Creek to predict flood stage up to 72 hours in advance. These models are not run operationally and performed on an ad hoc basis. Outputs are considered estimates and can vary, sometimes significantly, from the actual flood flows.

To improve the accuracy of the modeling, Valley Water will review the computer model periodically and determine if additional information can be gathered to update the model. The type of information that can be used to update the models include: surveys of channel geometry, reevaluation of channel roughness due to vegetation or blockages, and data gathered during high flow events.

Valley Water and NWS will utilize this modeling to help set their threat level for San Tomas Aquino Creek (Table 2A) and provide the information to local agencies and the public as appropriate. And, this same modeling and information that helps determine threat levels is used by Valley Water in determining flood severity levels for San Tomas Aquino Creek (Table 3A) during storm events.

3. Gauge System

Stream gauges provide valuable information for high flow events and may give notice to take action or to deploy staff for field observations. Gauges may be both visual and remote sensing Automated Local Evaluation in Real Time (ALERT). ALERT gauges are set with alarms to automatically notify appropriate staff at stages as described in Table 3A.

A listing of all ALERT gauges can be found at http://alert.valleywater.org. These gauges provide data in near real-time upstream of Williams Road and at Mission College Blvd on San Tomas Aquino Creek and for two location on the Saratoga Creek tributary.

4. Field Information Teams and Field Operations & Maintenance

As water levels increase in the creeks, rivers, and waterways, Valley Water Field Information Teams (FITs) are deployed to visually monitor and report back to a DOC or EOC the water levels in areas of potential flooding. In addition, FITs can monitor facilities for potential damage, identify surface drainage issues, thoroughly document actual flooding, and report landslides/erosion affecting the adjacent land uses.

Valley Water and, in some cases other Stakeholders, have individual teams who deploy into the field to observe flood conditions at "hot spots." Deployment of these teams may be coordinated if there are more than one team in the same area. HH&G maintains a master list of flooding hotspots (Attachment 15) to deploy FITs and other teams in the West Valley Water that includes San Tomas Aquino Creek at:

- **Campbell Avenue to Williams Road** – possible high flows and blockages at Williams Road trash rack and bridges can cause overtopping and flooding along San Tomas Expressway,
- **Hetch-Hetchy Pipelines** – check for high flows on levees and debris on pipeline crossing, and
- **Highway 237** – check levees upstream and downstream for high flows and possible levee stability issues.

Field Operations & Maintenance personnel are also typically out in the field inspecting, repairing, and removing debris from facilities during storm events. These personnel also provide intelligence back to their agencies regarding facility conditions and any storm related concerns.

In addition, the public may be helpful in reporting situations that may pose a flood threat. These are typically reported to Valley Water, City Stakeholder or other Agency Stakeholder who should promptly relay to the DOC/EOC or to Valley Water through a contact method shown below:

- Main Valley Water telephone – (408) 265-2600
- After hours telephone – (408) 395-9309
- Valley Water website report problems – https://www.valleywater.org/ or https://clients.comcate.com/newrequest.php?id=80
- Non-Emergency Police & Fire dispatch – 311
- Emergency Police & Fire dispatch – 911

All together the intent of these observations is to cover the following:

a. Visual stream gauges—check for high water and rate of change
b. Known Flood Hot-Spots
c. Real-time Flooding—report and document flooding
d. Bridge Piers—check for debris blockages
e. Trash Racks—check for debris blockages
f. Levees and Floodwalls—check for damage and stability
g. Sandbag sites—check for supply and access issues
h. Previously repaired or other project sites—check for performance
i. Bank Stability—check for threats to adjacent land uses

E. SAN TOMAS AQUINO FLOOD CONDITION LEVELS AND SEVERITY DETERMINATION

Sometimes an event is a flash flood that occurs suddenly without much early notice, which is likely to occur in small watersheds that are controlled by storm drain runoff. However, with weather forecasting and modeling there is often an ability to estimate flood events before they occur. This is extremely valuable when preparing for necessary evacuations and road closures.

To provide this advanced notice, a threat level should be used to provide an indicator of preparedness for a response and a level of potential severity for areas subject to flooding to assist the Agency's in planning and implementing appropriate actions. Modeling in the future is filled with uncertainties, therefore, a condition of Watch will be used when flood stage is estimated about 24 to 72 hours or more in the future. If flooding is estimated within about 24 hours, the threat level will be elevated to Warning.

TABLE 2A
Flood Condition Levels

Preparedness (Green)	This is the base stage of readiness that will be the typical condition throughout most of the year. It is defined as: • Flood stage (Minor Flooding or greater) or 90% to 100% of Design Flow stage is not estimated within the next 72 hours or • Measured stream depth is below 50% of flood or 70% of Design Flow stage.
Monitoring (Yellow)	This condition is variable and requires more intense monitoring and a heightened level of alertness. Minimal staff in the Emergency Operations Center (EOC) or in Watersheds Departmental Operations Center (DOC) may be activated. An informal EOC/DOC Action Plan (AP) could be initiated. This condition is defined as: • Stream depth is estimated to reach flood or 90%-100% of Design Flow stage in 72 hours or more or, • Measured stream depth is at 50% to 70% of flood or 70% to 90% of Design Flow stage or, • For areas that are controlled purely by storm drain runoff (flashy systems), the stream depth is estimated to reach flood or near Design Flow stage within 24 hours.

Watch (Orange)	The EOC/DOC may be opened if not already operating. A formal EOC/DOC AP may be drafted if they are active. This condition would be set if: • Stream depth is estimated to reach flood or greater than Design Flow stage within 24 to 72 hours or. • Measured stream depths are at 70% to 100% of flood stage, or • Measured stream depths are at 90% to 100% of Design Flow stage, or • For areas that are controlled purely by storm drain runoff (flashy systems), the stream depth is estimated to reach flood or greater than Design Flow stage within 6-12 hours.
Warning (Red)	The EOC will typically have been activated and would be closely monitoring the situation, providing notifications and responding according to a written AP. Often for smaller watersheds with flashy creeks, an EOC may not be opened until the storm event is occurring. • Flood stage or greater than Design Flow stage is occurring or is estimated to occur within 24 hours, or • Measured stream depths are 100% or greater than flood stage, or • Measured stream depths are greater than Design Flow stage or, • For areas that are controlled purely by storm drain runoff (flashy systems), the stream depth is estimated to reach flood or greater than Design Flow stage within minutes/hours or is occurring.

When the threat level is at a Watch or Warning, there is an expectation that flooding will occur or is occurring at some locations. The severity of the situation at specific locations is determined by the flood stage. The areas subject to flooding for different stream stages are estimated utilizing hydraulic models and flood maps prepared by the Hydrology, Hydraulics and Geomorphology Unit (HH&G).

Flood severity categories are defined by the NWS as:

TABLE 3A
San Tomas Aquino Creek Flood Severity Levels

Action (Yellow)	An established gauge height which when reached by a rising stream, lake, or reservoir represents the level where action is taken in preparation for possible significant hydrologic activity. **San Tomas Aquino Creek** – The stream gauge at Williams Road is near or expected to be near 8 feet (10-year flow rate).
Minor Flooding (Orange)	Minimal or no property damage, but possibly some public threat (e.g., inundation of roads). **San Tomas Aquino Creek** – Williams Road stream gauge is at or is expected to be between 8 to 9 feet (exceeds a 10-year flow rate). • Overbanking possible onto Williams Road, Payne Avenue, West Hamilton Avenue, and Campbell Avenue, causing street flooding. • Possible overbanking onto San Tomas Expressway between Homestead Road and Forbes Avenue at the daylight area of the box culvert.

Moderate Flooding (Red)	Some inundation of structures and roads near stream, evacuations of people and/or transfer of property to higher elevations. **San Tomas Aquino Creek** – Williams Road stream gauge is at or is expected to be between 9 to 9.5 feet (exceeds a 50-year flow rate). • Overbanking upstream of Williams Road move west and northward along Boynton Avenue, ponding along Interstate 280 (I-280). Worst flooding is east of Boynton High School. • Overbanking upstream of Homestead Road spread along San Tomas Expressway moves northward and spreads into surrounding neighborhoods. • If Saratoga Creek has substantial flows as well, overbanking on the east bank is possible between Highway 101 and Scott Boulevard.
Major Flooding (Purple)	Extensive inundation of structures and roads, significant evacuations of people and/or transfer of property to higher elevations. **San Tomas Aquino Creek** – Stream gauge at Williams Road is above or expected to be at or above 9.5 feet (100-year flow rate). • San Tomas Expressway will flood with water moving northward under the I-280 viaduct toward Homestead Road. Water sheet flows toward Pruneridge Golf Course. • Extensive flooding stemming from the daylighted section of the culvert upstream of Homestead Road. • Areas east of Kiely Boulevard and west of Scott Boulevard are at risk. • Floodwaters may continue to move northward, bounded by San Tomas Aquino Creek and Scott Boulevard, crossing the Caltrain tracks toward Highway 101. • If Saratoga has significant flows as well, overbanking will occur on the east bank into an office park between Highway 101 and Scott Boulevard, bounded by the creek and San Tomas Expressway, inundating the office park.

F. NOTIFICATIONS AND ACTIVITIES

General activities and actions are described in Concept of Operations – Table 3 and Attachments 3 through 8 of the EAP. General notifications are described in EAP Mobilization – Step 3 of the EAP. The general level of activity and notifications will be guided by the best information available to the EAP Personnel. The level of activity may mirror those activities of the individual jurisdictional Emergency Operations Centers (EOCs).

San Tomas Aquino Creek flows through the cities below and may pose a threat to any of them, however, it poses the greatest flood threat to the City of Santa Clara and City of San José. Contact information for the cities and other Agency Stakeholders is included as Attachment 9 of the EAP.

- City of Campbell
- Town of Los Gatos
- City of Monte Sereno
- City of Santa Clara
- City of San José
- City of Saratoga

There are important infrastructure and facilities at risk of flooding from San Tomas Aquino. Based on intelligence gathered during the storm event, the EOC and other stakeholders will determine the risk and provide notifications as appropriate. In general, a City Stakeholder would provide notifications to critical facilities at risk.

Below is a list of some important facilities that may be at risk. If needed and available, more detailed flood maps may be provided to City Stakeholders by Valley Water's Hydrology, Hydraulics and Geomorphology Unit to better determine which facilities are threatened:

FACILITY TYPE	NAME	ADDRESS	PHONE
SCHOOLS & COMMUNITY CENTERS	Starbird Youth Community Center	1050 Boynton Avenue, San José	(408) 564-4239
	Boynton High School	901 Boynton Avenue, San José	(408) 626-3404
	The Harker School – Middle School Campus	3800 Blackford Avenue, San José	(408) 248-2510
	Lynhaven Elementary School	881 Cypress Avenue, San José	(408) 556-0368
	City of San José – Cypress Community and Senior Center	403 Cypress Avenue, San José	(408) 244-1353
	The Cabrillo Montessori School of Silicon Valley	2495 Cabrillo Avenue, Santa Clara	(408) 418-3568
	Cabrillo Middle School	2550 Cabrillo Avenue, Santa Clara	(408) 423-3700
MEDICAL	Central Medical Center	2344 El Camino Real, Santa Clara	(408) 249-1212
FIRE STATION	Santa Clara Fire Station 4	2323 Pruneridge Avenue, Santa Clara	(408) 615-4900