



# San Tomas Aquino Creek Emergency Action Plan Summary Guide

West Valley Watershed EAP dated: November 2023

This guide summarizes key information/guidelines as described in the West Valley Watershed Emergency Action Plan and its San Tomas Aquino Creek Appendix (EAP). Page numbers are referenced (in red) identifying the location in the EAP where full information and data can be found. This guide is a summary and does not replace the full EAP.

## Purpose of EAP (Page 1)

- To enhance coordination and communication between Santa Clara Valley Water District (Valley Water) and other responsible jurisdictions regarding storm and flood events for San Tomas Aquino Creek (Creek), which is a flood threat to the City of San José and City of Santa Clara (Cities).
- To provide guidance and an approach to ensure communications, planning, and implementation between the responsible agencies regarding threatened and actual flooding emergencies.
- To facilitate:
  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.
  4. Collaboration and coordination with other responsible jurisdictions.

## Limitations of EAP

(Page 5)

The EAP shall not constrain the Incident Commander (IC) in the field or others when dealing with flooding on San Tomas Aquino Creek. It does not replace or override existing plans, authorities, or responsibilities.

Instead this EAP will provide oversight and guidance and will not 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. 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.

## San Tomas Aquino Creek Description (Pages 60-65)

San Tomas Aquino Creek begins in the hills above the City of Saratoga and flows about 25 miles northerly through portions of the cities of Saratoga, Monte Sereno, Campbell, San José, Santa Clara and the Town of Los Gatos. Saratoga Creek is the largest tributary entering San Tomas Aquino Creek in the City of Santa Clara north of El Camino Real. The Creek discharges into Guadalupe Slough at the confluence with Calabazas Creek. San Tomas Aquino Creek Watershed drains about 45 square miles along the eastern edge of the West Valley Watershed.

About 68% (17 miles) of San Tomas Aquino Creek has been modified including about 3.7 miles that flows in a culvert under San Tomas Expressway. An adjacent pedestrian/bicycle path runs along the creek

## Flood Threats

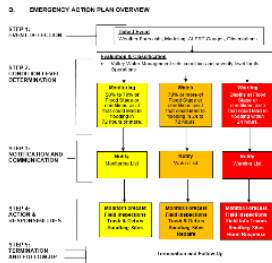
(Pgs 66-70 and Table 3A on Pgs 74-75)

Valley Water has identified the following potential flooding areas:

- Upstream of Williams Rd including Campbell Ave, Hamilton Ave, and Payne Ave.
- Near Homestead Road at a daylight section of the San Tomas Expressway box culvert.
- Areas near Keily Blvd and Scott Blvd

from near El Camino Real to the Bay Trail just north of Highway 237. Two ALERT stream gauges on the creek, located at Williams Road and Mission Blvd, provide real-time high flow data.

## EAP Overview (Page 18)



### Five steps in the EAP process:

1. Event Detection
2. Condition Level Determination
3. Notification & Communication
4. Actions & Responsibilities
5. Termination & Follow-up

## EAP Personnel (Pages 10-13)

The EAP assigns functions and personnel as described in the Valley Water's Emergency Operations Plan that is in keeping with the concepts of SEMS and NIMS. The personnel assigned to fill the functions listed below may vary as condition levels change.

- a. Management (includes EOC Director, Public Information Officer, and Elected officials)
- b. Planning/Intelligence (P/I)
- c. Operations
- d. Logistics
- e. Finance

## Step 1 - Event Detection (Page 19 and Pages 71-73)

This step describes the detection of an unusual or emergency event and provides information to assist Valley Water in determining the appropriate emergency level for the event. Unusual or emergency events may be detected by:

- **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. During storm events, the NWS will host webinars with affected agencies and utilities to discuss forecasts and share information to enhance regional preparedness. 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.
- **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.
- **Gauge System** - 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. A listing of all Valley Water gauges can be found at <http://alert.valleywater.org>.
- **Field Information Teams/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 and O&M staff are in the field inspecting and repairing facilities. These field personnel can monitor facilities for potential damage, identify surface drainage issues, thoroughly document actual flooding, and report landslides/erosion affecting the adjacent land uses. HH&G maintains a master list of flooding hotspots as shown in Attachment 14 (Pages 56-58) 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.

## Step 2 - Evaluation & Classification (Pages 20-21)

**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 Subject Matter Experts (SMEs) from P/I or Operations. In addition to flood situations, other events may be considered during high flows as listed in Attachment 1 (Pages 26-27).

**Classification**—Based on evaluation of the intelligence detected by SMEs, they may recommend **Flood Condition Level** (Pages 8-9, Pages 73-74, and Pages 26-27) over a general area or for a specific creek and location. The recommendation for San Tomas Aquino Creek **Flood Condition Level** is based on assessment by SMEs and, if appropriate, **Flood Severity Level** for San would be based on specific thresholds - Table 3A (Pages 73-75). The decision for a change in condition level is typically made by EOC/DOC Management. Tables below describe the Flood Condition Levels and the Flood Severity Levels. These levels are consistent with those issued by the National Weather Service.

### Flood Condition Levels

<b>Green</b>	<p><b>Preparedness</b> This is the base stage of readiness that will be the typical condition throughout most of the year. It is defined as:</p> <ul style="list-style-type: none"> <li>Flood stage (Minor Flooding or greater) or 90% to 100% of Design Flow stage is not estimated within the next 72 hours, or</li> <li>Measured stream depth is below 50% of flood or 70% of Design Flow stage.</li> </ul>
<b>Yellow</b>	<p><b>Monitoring</b>— 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:</p> <ul style="list-style-type: none"> <li>Stream depth is estimated to reach flood or 90%-100% of Design Flow stage in 72 hours or more, or</li> <li>Measured stream depth is at 50% to 70% of flood or 70% to 90% of Design Flow stage, or</li> <li>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.</li> </ul>
<b>Orange</b>	<p><b>Watch</b>— 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:</p> <ul style="list-style-type: none"> <li>Stream depth is estimated to reach flood or greater than Design Flow stage within 24 to 72 hours, or</li> <li>Measured stream depths are at 70% to 100% of flood stage, or</li> <li>Measured stream depths are at 90% to 100% of Design Flow stage, or</li> <li>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.</li> </ul>
<b>Red</b>	<p><b>Warning</b>— 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.</p> <ul style="list-style-type: none"> <li>Flood stage or greater than Design Flow stage is occurring or is estimated to occur within 24 hours, or</li> <li>Measured stream depths are 100% or greater than flood stage, or</li> <li>Measured stream depths are greater than Design Flow stage, or</li> <li>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.</li> </ul>

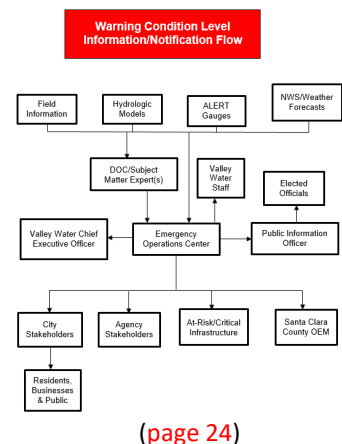
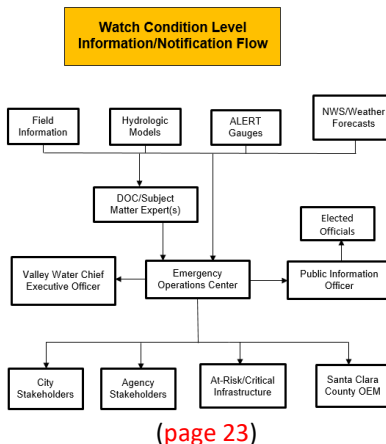
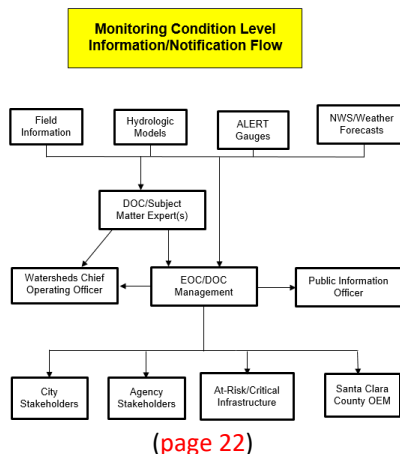
### Flood Severity Levels

<b>Yellow</b>	<p><b>Action</b>— 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.</p> <p><b>San Tomas Aquino Creek</b> – The stream gauge at Williams Road is near or expected to be near 8 feet (10-year flow rate).</p>
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<b>Orange</b>	<p><b>Minor Flooding</b>— Minimal or no property damage, but possibly some public threat (e.g., inundation of roads).  <b>San Tomas Aquino Creek</b> – Williams Road stream gauge is at or is expected to be between 8 to 9 feet (exceeds a 10-year flow rate).</p> <ul style="list-style-type: none"> <li>Overbanking possible onto Williams Road, Payne Avenue, West Hamilton Avenue, and Campbell Avenue, causing street flooding.</li> <li>Possible overbanking onto San Tomas Expressway between Homestead Road and Forbes Avenue at the daylight area of the box culvert.</li> </ul>
<b>Red</b>	<p><b>Moderate Flooding</b>— Some inundation of structures and roads near stream, evacuations of people and/or transfer of property to higher elevations.  <b>San Tomas Aquino Creek</b> – Williams Road stream gauge is at or is expected to be between 9 to 9.5 feet (exceeds a 50-year flow rate).</p> <ul style="list-style-type: none"> <li>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.</li> <li>Overbanking upstream of Homestead Road spread along San Tomas Expressway moves northward and spreads into surrounding neighborhoods.</li> <li>If Saratoga Creek has substantial flows as well, overbanking on the east bank is possible between Highway 101 and Scott Boulevard.</li> </ul>
<b>Purple</b>	<p><b>Major Flooding</b>— Extensive inundation of structures and roads, significant evacuations of people and/or transfer of property to higher elevations.  <b>San Tomas Aquino Creek</b> – Stream gauge at Williams Road is above or expected to be at or above 9.5 feet (100-year flow rate).</p> <ul style="list-style-type: none"> <li>San Tomas Expressway will flood with water moving northward under the I-280 viaduct toward Homestead Road. Water sheet flows toward Pruneridge Golf Course.</li> <li>Extensive flooding stemming from the daylighted section of the culvert upstream of Homestead Road.</li> <li>Areas east of Kiely Boulevard and west of Scott Boulevard are at risk.</li> <li>Floodwaters may continue to move northward, bounded by San Tomas Aquino Creek and Scott Boulevard, crossing the Caltrain tracks toward Highway 101.</li> <li>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.</li> </ul>

### Step 3 - Notification & Communication (Pages 21-24)

**Notification:** 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. The charts shown below show the flow of information for the three flood threat condition levels and the contact list is Attachment 9 (Page 46).



#### Step 4 - Actions & Responsibilities (Pages 14-17)

As the weather conditions change, the responsibilities of the City, District and other Stakeholders adjust. The list of responsibilities provided in Table 3 illustrate in general terms what actions are needed at each threat level, and who has lead responsibility. Specific responsibilities for personnel are included in Attachments 3-8 (Pages 30-45).

**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 the Incident Preparedness to Monitoring, Detection and Warning. The overall change in level of participation, number of participants, and staffing levels 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 and the availability of resources. The list of responsibilities and activities and the updates in stream management and control systems could vary the conditions.

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Responsibility/Activity	Stakeholder/Personnel Involved
Conduct CDRS. Offer on conditions for potential respondents	Cy Statewide and County CDRS
Respond to and evaluate survey results to need examples of remedial actions to be listed in Attachment 2.	WFOU
Identify staff with lock monitoring abilities	WFOU
Inquest and under Time-Rule and Bridge The Gaps	WFOU
Identify the equipment needs of localities to be able to support the assessment of lock monitoring activities with lock responding Agency Stakeholders	EC Operations and/or THU
Identify and coordinate Field Information Teams (FIT)	GAMSP/JNHAG
Member Screen Survey	IRMS
Coordinate training based on lock, inquest and watershed conditions and post flood maps on a shared drive for internal use within the agency and the County. The County provides Inquest flood maps to Agency Stakeholders	Planning/Inquest and Management
Identify possible recommendations for City Storm Jump systems (e.g. City and County) to be used in the future	VI-UD
Update location for flood fighting resources for the public and internal use (e.g. City and County)	EC Operations, THU and/or WFOU
Update flood information resources (Attachment 13)	EC, HIGG, WFOU and/or County Stakeholders
Provide public information in multiple languages	Each Stakeholder EC, HIGG, WFOU and/or County Stakeholders
Provide public training in multiple languages	Cy Stakeholder in need - Coordination
Activate other public notification systems (e.g. Alert SCS, Emergency Alert System)	Cy Stakeholder in need - Coordination
Activate trainee training systems (TTS) and, if necessary, activate other training systems for the organization	EC, Management/PRD
Participate in JCRCIS as required	PRD/Agency Center (JCRCIS Agency Center) and/or other agencies
Communicate with media as needed	EC, Management/PRD
Provide information on map and available resources to request for assistance	EC, Management
Provide information to and from responsive CDRS, including local, regional and state	EC, Management
Activate the CDR for "Warning"	EC, Management
Respond to Agency Stakeholders (CWR) when directed and as needed	EC, Planning/Inquest or Operations
Notify appropriate staff about the increased flood condition level and request for assistance	EC, Management/PRD
Coordinate with the County and other agencies request coordination plans and resources needs	EC, Management/PRD or Operations

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**Step 5 - Valley Water Termination & Follow-up (Page 25)**

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 Cities 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

### **Maintenance of EAP (Page 5-6)**

O&M will work with Emergency Services & Security Unit, Hydrology Hydraulics & Geomorphology Unit 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.

### **Attachments (Pages 26-59)**

[ATTACHMENT 1](#) - Guidance for Evaluating High Flow Condition Level  
[ATTACHMENT 2](#) - Emergency Remedial Actions  
[ATTACHMENT 3](#) - Management Action List  
[ATTACHMENT 4](#) - Planning/Intelligence Action List  
[ATTACHMENT 5](#) - Operations Action List  
[ATTACHMENT 6](#) - Field Information Team Action List  
[ATTACHMENT 7](#) - Public Information Officer Action List  
[ATTACHMENT 8](#) - Elected Officials Action List  
[ATTACHMENT 9](#) - Emergency Services Contact List  
[ATTACHMENT 10](#) - Valley Water Emergency Responders Contact List  
[ATTACHMENT 11](#) - Available Resources  
[ATTACHMENT 12](#) - Equipment List  
[ATTACHMENT 13](#) - Web-Based Data Sources  
[ATTACHMENT 14](#) - Field Information Team Hot Spots