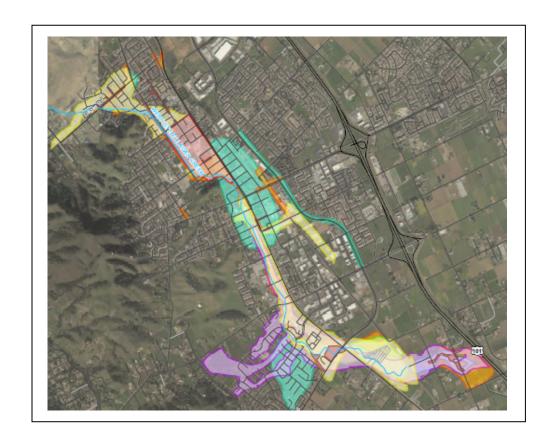


WEST LITTLE LLAGAS CREEK EMERGENCY ACTION PLAN



Revision Date: January 17, 2024

SANTA CLARA VALLEY WATER DISTRICT

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APPROVAL & IMPLEMENTATION

The West Little Llagas Creek Emergency Action Plan for Flood Response prepared by the Santa Clara Valley Water District (Valley Water) is hereby approved for implementation. This plan shall be reviewed and updated annually as necessary by Watersheds Operations & Maintenance Division in coordination with other affected Valley Water divisions/units and external partners.

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 during 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.

The Chief Executive Officer (CEO) has assigned oversight of emergency management to the Chief Operating Officer (COO) of Information Technology & Administration Services and management of activities relating to West Little Llagas Creek 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 resources for preparedness, mitigation and response to the next flood emergency:

Ngoc Nguyen

Deputy Operating Officer

Acting for Melanie Richardson, P.E.

Chief Operating Officer

Watersheds

01/29/2020

DATE

Tina Nguyen Yoke, C.P.M.

Chief Operating Officer

Information Technology & Administrative

Services

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ACRONYMS

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

Acronym	What is it
ALERT	Automated Local Evaluation in Real Time
AP	Action Plan
AAR	Action Fight After Action Report
City	•
D&C	City of Morgan Hill Design & Construction
DOC	Design & Construction Departmental Operations Center
DWR	·
EAP	California Department of Water Resources Emergency Action Plan
ES&S	•
EOC	Emergency Services & Security
EOP	Emergency Operations Center
	Emergency Operations Plan
FEMA	Federal Emergency Management Agency Field Information Team
FIT	
HH&G	Hydrology, Hydraulics & Geomorphology
IC	Incident Commander
ICS	Incident Command System
NWS	National Weather Service
OC	Office of Communications
OES	Office of Emergency Services
OGR	Office of Government Relations
O&M	Operations & Maintenance
PIO	Public Information Officer
STAGE	Depth of Flow
SEMS	Standardized Emergency Management System
SME	Subject Matter Expert
UM	Unit Manager
Valley Water	Santa Clara Valley Water District

RECORD OF HOLDERS OF CONTROL COPIES OF THIS EAP

Copy Number	Unit/Location	Person Receiving Copy	Date
1	Office of Chief Operating Officer – Watersheds	Christopher Hakes	
2	Office of Chief Operating Officer – Information Technology & Administrative Services	Tina Yoke	
3	Watersheds O&M Deputy Operating Officer	Jennifer Codianne	
4	Watersheds O&M Engineering Support UM	Devin Mody	
5	Watersheds O&M Engineering Support	Greg Meamber	
6	Watersheds Field Operations	Ryan Tregoning	
7	Watersheds Hydrology, Hydraulics & Geomorphology	Liang Xu	
8	Security and Emergency Services	Alexander Gordon	
9	DOC	DOC Files/Library	
10	EOC	Alexander Gordon	
11	City of Morgan Hill OES	OES	

RECORD OF REVISIONS AND UPDATES MADE TO EAP

Revision Number	Date	Revision Made	By Whom
1	January 17, 2024	Minor revisions to update web-based data sources, contacts, organizational changes, updated Flood Condition Levels (Table 1), and changes to flood thresholds in Flood Severity Levels (Table 2).	OES

1. INTRODUCTION

A. PURPOSE OF THE EMERGENCY ACTION PLAN (EAP)

The purpose of this Emergency Action Plan (EAP) is to provide guidance and an approach to ensure communications, planning, and implementation between Valley Water, City of Morgan Hill (City) and other stakeholder agencies regarding threatened and actual flooding emergencies. This plan is generally specific to Valley Water and City actions and does not include the details of how other jurisdictions will respond during a flood event.

This EAP is designed to establish general guidance for Valley Water, City, and other stakeholders to facilitate:

- 1. Pre-incident planning prior to a storm/flood event.
- 2. Coordination of an interagency response and recovery operation, and
- 3. Collaboration on public messaging for potential, imminent, and actual flooding along the West Little Llagas Creek in the City.

B. LIMITATIONS OF EAP

This EAP shall not constrain the freedom of an Incident Commander (IC) in the field or others when dealing with flooding on West Little Llagas Creek. This EAP does NOT and will NOT replace or override an Agency'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 the responsible agencies can improve coordination before, during and after a flood incident. This EAP provides 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 the 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, City and other stakeholders will utilize this EAP as needed to

develop joint decisions and actions based on the situation and their jurisdictions capabilities, resources and priorities.

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

C. 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 City, County of Santa Clara, and other Stakeholder Agencies 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 and City or not on the original distribution list. Valley Water and City may distribute this internally but are to handle with the same care as other restricted documents.

D. RELATIONSHIP TO OTHER PLANS

This EAP provides additional guidance specific to Valley Water in its planning, response and recovery activities related to flood emergencies on West Little Llagas Creek. This guidance does not supersede existing agreements or internal plans, such as, the Emergency Operations Plan (EOP). It may include responsibilities or actions that may be taken by other external stakeholders that are not a part of 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.

E. STAKEHOLDERS

All parcel owners along West Little Llagas Creek and agencies with jurisdiction in its Watershed are stakeholders and may have responsibilities identified in this EAP. This includes the Agency Stakeholders (Valley Water, City, Santa Clara County, Caltrans, and Morgan Hill Unified School District) and Private Property Stakeholders. Combined these are the Stakeholders responsible for the tasks identified in this EAP. Stakeholders combined have a responsibility to respond to the needs of residents, business, property owners, and/or the environment when affected by severe storms that create floods along West Little Llagas Creek. There are other agencies/entities that have a role in preparing and responding to flood events, who may have specified roles to support the response. For example, Santa Clara County Office of Emergency Management (OEM) provides support for assisting in flood warning.

Valley Water is one of several Agency Stakeholders and is the primary user of the EAP and will fulfill related responsibilities before, during and after flood emergencies as resources are available and/or can be safely deployed. This plan is focused on the related activities of Valley Water and, as such, the Valley Water internal stakeholders for the 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 (D&C)
 - Community Projects Review Unit (CPRU)
 - Design and Construction Unit
 - Office of Chief of External Affairs
 - Office of Communications (OC)
 - Office of Government Relations (OGR)
 - Office of Civic Engagement

F. POTENTIAL IMPACTED AREAS

For the purpose of this EAP, Valley Water has identified the following as West Little Llagas flooding "Hot Spots" (Attachment F shows maps of Field Information Team Hot Spots):

- Llagas Road Restrictor (to remain in place) on upstream of culvert
- Wright Avenue & Hale Avenue Culverts upstream and downstream
- West Main Avenue & Hale Avenue Culvert and trash rack
- Dunne Ave to West Main Ave Street flooding
- Monterey Road & Bisceglia Avenue Street flooding
- Watsonville Road Flooding
- Maple Leaf RV Park (15200 Monterey Road, Morgan Hill) Flooding
- Seymore Ave Flooding

See FEMA 100-year Flood Map (Attachment B-1) and Valley Water 1% (100-year) Estimated Flood Map (Attachment B-2) for areas that are at flood risk and historical flooding is described in Attachment B-3. The historical flooding areas are likely to flood in future high flow events.

G. WEST LITTLE LLAGAS CREEK DESCRIPTION

Llagas Creek is a conduit to the Pajaro River and Monterey Bay. It drains a 100-square mile watershed and includes the Chesbro Reservoir, a multipurpose facility for flood control and water supply. The Llagas Creek watershed, which includes Llagas Creek, West Little Llagas Creek, and East Little Llagas Creek, is especially prone to flooding.

Parts of West Little Llagas Creek are highly urbanized, and several homes or other buildings have been built next to or on top of the channel. Major flooding in West Little Llagas Creek was recorded in 1967, 1978, 1980, 1982, 1983, 1993, 1995, 1997, 1998, 2009, and 2017. There are currently capital projects in the design and construction phases to increase capacity of West Little Llagas Creek to 100-year flow levels or construct diversion channels to divert flow to the main branch of Llagas Creek. Two tributaries flow into West Little Llagas Creek: Dewitt Creek and Edmundson Creek.

H. TRAINING OF EAP

ES&S will regularly conduct internal Valley Water training 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 relationship between Departmental Operations Centers (DOC) and 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 O&M Engineering Support Unit 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 O&M tabletop exercises. A scenario or scenarios specific to West Little Llagas Creek should be given to allow participants to discuss response and actions they would take to address and resolve the scenario if West Little Llagas Creek has not been part of a training over a 5-year period. 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.

I. MAINTENANCE OF EAP

The Watersheds O&M Division will work with ES&S, 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.
 The EAP will be revised if any of the contacts have changed (to be provided by Field Operations Unit Manager and Emergency Services & Security Unit Manager),

- Verify and, if necessary, update flood maps and flood thresholds,
- Verify the locally available resources and equipment list is current (to be provided by Field Operations Unit Manager), and/or
- Incorporate appropriate recommendations from any After Action Report (AAR) or similar report developed from training or actual activation into the update of the EAP.

REVISIONS

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

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2. CONCEPT OF OPERATIONS

Valley Water utilizes the Standardized Emergency Management System (SEMS) Incident Command System as the primary structure for emergency operations in the Emergency Operations Plan (EOP). This system will be utilized by Valley Water in response to emergency situations on West Little Llagas Creek. Operations as part of this EAP will supplement that system to help ensure a comprehensive and coordinated approach to emergency response.

A. EAP PERSONNEL

The effectiveness of the EAP relies on the designated level of authority provided to each Stakeholder representative and the level of the EAP activation. Based on the event condition level and related potential for flooding, the personnel who staff the EOCs may evolve, due to the knowledge and authority required. Personnel referred to in this EAP are more general and are consistent with the State of California Standardized Emergency Management System (SEMS) and Incident Command System (ICS).

<u>Subject Matter Experts</u>: Staff from the City, Valley Water (some are listed in Attachment A-2) and other Agency Stakeholders who have specific knowledge related to the issues of permitting, flood control dynamics, creek flow, potential impacts of flood, geology, hydrology, flood monitoring, engineering and flood response.

- Personnel: These may be personnel assigned to the Operations or Planning Section in their respective Emergency Operations Plan/Emergency Operations Center (EOP/EOC).
- Authority includes: Represent Agency on technical matters; Confer with DOC/EOC Director regarding activation of next level; and Engage outside resources such as National Weather Service.

<u>Public Information Officers (PIO)</u>: Staff from the City, Valley Water and other Stakeholders who have experience with managing and disseminating information to the public via traditional media, social media, electronic methods or other tools with the purpose of distributing preparedness, response, evacuation and recovery information.

- Personnel: These may include personnel assigned to the following EOC positions:
 - Public Information Officer
- Authority includes: Ability to create and distribute outreach materials for community awareness and preparedness; Represent each Agency to produce and distribute public notices regarding potential flood, as appropriate; and City PIO initiates activity to disseminate evacuation orders and shelter information.

<u>Elected Officials</u>: Through each Agency PIO or Liaison staff, elected officials will be contacted and kept informed of the situation during the Watch and Warning stages and provided with appropriate public messaging. If officials are in contact with affected constituents and receive pertinent information, they will convey that information to the EOC through PIO or Liaison staff.

B. FACILITIES

The EAP responders are comprised of staff from Valley Water, City, and other Agency Stakeholders. As the conditions require during Monitoring, Watch, or Warning Stages, a virtual meeting place will be established. To facilitate communication, the City will initiate contact with Valley Water and other Agency Stakeholders via an e-mail group or similar group. The conditions of the storm will identify when the virtual meeting will expand to conference calls, video conferencing, or other means to electronically communicate. If the EOC transitions to a physical location, virtual activities may continue to enhance communications between multiple EOCs and DOCs. The storm conditions and availability of EAP personnel will determine the need and efficiency of the meeting operations and whether Agency Stakeholders will physically locate staff at each other's facility to improve communication and coordination.

C. PROCEDURES

The City and Valley Water, if needed, may develop additional procedures and/or guidance beyond what is provided herein. For example, the Valley Water may choose to co-locate or assign a liaison to the City's Police Department EOC or Department of Engineering & Utilities DOCs. This could facilitate better tracking of their personnel operating in the Morgan Hill area.

D. EMERGENCY LEVEL DESCRIPTIONS

The concepts and activities described in this EAP are associated with the level of storm or flood threat. This EAP is considered active 12 months of the year, 24 hours a day, and 7 days a week. The intensity and degree of activity will increase along with creek conditions. The flood condition levels utilized in this EAP are consistent with the National Weather Service and defined as:

TABLE 1: Flood Condition Levels

Green	Preparedness – 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 stage is not estimated within the next 72 hours or Measured stream depth is below 50% of flood stage or design stage.
Yellow	 Monitoring – This condition is variable and requires more intense monitoring and a heightened level of alertness. Minimal staff in each Stakeholder's Emergency Operations Center (EOC) may be activated. An informal EOC Action Plan (AP) could be initiated if activated. This condition is defined as: Stream depth is estimated to reach flood stage or 90% to 100% of design stage in 72 hours or more; or Measured stream depth is at 50% to 70% of flood stage or 70% to 90% of design stage; or For areas that are controlled purely by storm drain runoff (flashy systems), the stream depth is estimated to reach flood stage or near design stage within 24 hours.
Orange	 Watch – The Stakeholders would increase staff in their EOCs, if they had been activated. If activated, a formal EOC AP will be drafted. This condition is defined as: Stream depth is estimated to reach flood stage or greater than design 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 stage; or For areas that are controlled purely by storm drain runoff (flashy systems), the stream depth is estimated to reach flood stage or greater than design stage within 6-12 hours.
Red	 Warning – This is a more urgent situation. The Stakeholders' EOC should be activated to monitor the situation, providing notifications and responding according to a written AP. Often for smaller watersheds with flashy creeks, an EOC will not be opened until the storm event is occurring. This condition is defined as: Flood stage or greater than design stage or 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 stage; or For areas that are controlled purely by storm drain runoff (flashy systems), the stream depth is estimated to reach flood stage or greater than design 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. West Little Llagas Creek - The measured stream stage is expected to be or is measured at 7 to 8 feet at the West Edmundson Avenue staff plate or rain precipitation is forecast of near 2" in 24 hours. Possible nuisance flooding is occurring or is expected to occur along the creek and on roadways. Watsonville Road at risk of flooding. This condition is variable and requires monitoring and a heightened level of	
	alertness due to a possibility of flood stage being reached within a couple of hours depending on weather conditions.	
	Minimal or no property damage, but possibly some public threat (e.g., inundation of roads).	
Minor Flooding (Orange)	West Little Llagas Creek - The measured stream stage is expected to be or is 8 to 9.5 feet at the West Edmundson Avenue staff plate or rain precipitation is forecast of greater than 2" in 24 hours. Flooding near the intersection of Watsonville Road and Monterey Road. Overbanking at Llagas Road travels northeasterly towards Hale Ave. Localized street flooding along Hale Avenue north of Wright Avenue and on W Main Ave. Localized flooding around La Crosse Drive and the Creek trail.	
	Some inundation of structures and roads near stream, evacuations of	
Moderate Flooding (Red)	West Little Llagas Creek - This is an urgent situation when measured flood stage is expected to be or is 9.5 feet or higher at the West Edmundson Avenue staff plate. Overbanking at Llagas Road and Llagas Creek continues north easterly along Llagas Road toward Hale Avenue. Possible overtopping near Wright Avenue and Hale Avenue. Homes against the creek, south of W Main Avenue and along Monterey Road are at risk. Rural areas downstream of Watsonville Road at risk for overland flow coming from the creek. Homes to the south of W Edmundson Avenue at risk.	
	Extensive inundation of structures and roads, significant evacuations of people and/or transfer of property to higher elevations.	
Major Flooding (Purple)	West Little Llagas Creek – Flooding that does occur is not expected to reach Major Flood Severity that would require significant evacuations or result in deep floodwaters into structures.	
*See Attachment E for the West Edmundson Avenue stream flow station website link. **See Attachment E for website link to Valley Water Flood Severity. NOTE: Please check the Valley Water Surface Water Data Portal for the latest flood thresholds at https://alert.valleywater.org/?p=map&disc=f.		

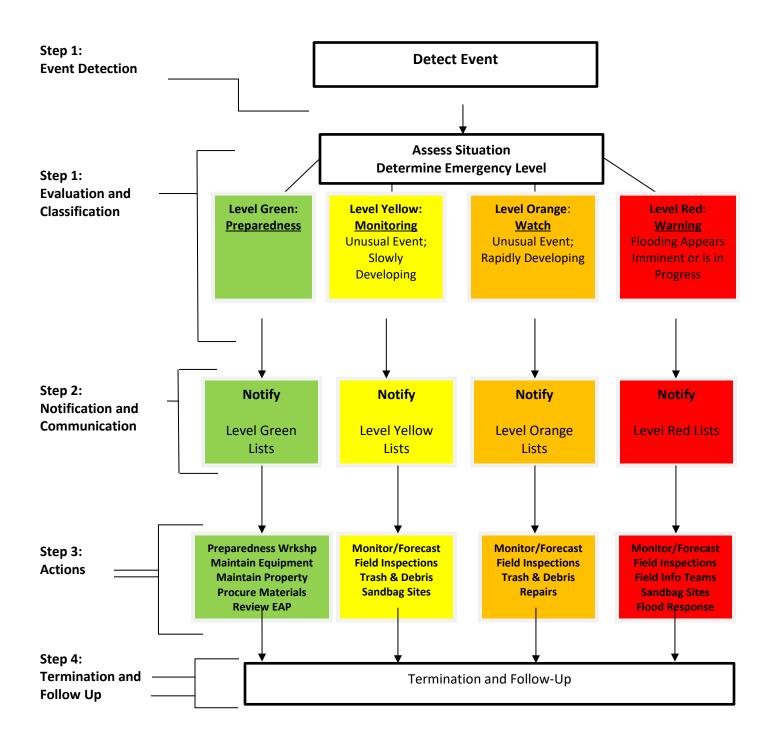
3. MOBILIZATION OF EAP

This EAP is always active because preparedness is a year-round activity. Whether collaborating on flood awareness outreach before an event, responding to a flood event, recovering from an event, or planning for maintenance or improvements after the winter storm season, the need for Valley Water, City, and other Agency Stakeholders to communicate and collaborate is critical. Once a potential or actual event is detected, responding in a coordinated way and collaborating on post incident recovery follows a progression of actions (Table 3).

During high flows, creek conditions can change at a moment's notice and may vary significantly from anticipated. This is especially true for highly responsive and small watersheds with natural creeks where trees and other vegetation or heavy sediment loads could cause blockages. For example, flood flows may not be anticipated to reach channel capacity, yet flooding may occur due to changes in the channel condition.

Therefore, the level of activity will be guided by the best information available to the Agency SMEs and DOC/EOC Director. The level of activity may mirror those activities of the individual jurisdictional EOCs. As weather conditions merit and monitoring takes place, the SMEs and DOC/EOC Director may be in their home offices or jurisdiction's EOC, for the Monitoring stage. The "call to action" may be a series of phone calls among the SMEs and DOC/EOC Director to determine the next steps. As conditions progress, City, Valley Water, or other Agency Stakeholders are encouraged to convene at the designated facility.

As storm conditions progress, there are four general steps Valley Water and the City follow to determine the level at which to activate the EAP. These are shown and described on the following pages.



A. STEP 1: EVENT DETECTION, EVALUATION, CLASSIFICATION

Event Detection—There are several detection methods used that include weather forecasts, hydrologic/ hydraulic modeling, Automated Local Evaluation in Real Time (ALERT) stream/reservoir/precipitation gauge systems, and field observation of stage gauges and other areas of high flow.

Weather Forecasts

The National Weather Service (NWS) provides weather (e.g., precipitation) forecasts up to 72 hours in advance of a storm event 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. Valley Water and City participate in these WEBINARs and share all current information.

Hydrologic/Hydraulic Modeling

Based on the weather forecast, Valley Water and the NWS River Forecast Center often utilize computer modeling of the watershed and creeks to estimate severity of flooding. These models are considered estimates and can vary, sometimes significantly, from the actual flood flows. This is especially true in unmodified stream systems.

To improve the accuracy of the modeling, Valley Water reviews the computer models periodically and determines if additional information can be gathered to update the models. The typical type of information that can 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.

The NWS has limited modeling capability and generally focuses on broader areas due to their larger area of scope and does not provide any flood prediction services for West Little Llagas Creek. However, Valley Water is often more focused and detailed in their modeling and utilizes additional available information for modeling. As modeling results become available, Valley Water and the NWS will share results to help improve accuracy of the estimations.

With the results of modeling, condition levels can be assigned and the severity of flooding can be estimated such that appropriate notices can be made. The NWS will issue threat level information, which is similar to the EAP condition levels and severity of flooding.

ALERT Gauge System

There are several ALERT gauges in the Llagas Creek Watershed. A map of all ALERT gauges can be found at https://alert.valleywater.org/?p=map. These gauges provide data in near real-time on most creeks in Santa Clara County and can provide critical data to determine the level of threat for flooding.

The following is a summary of the current stream gauge program:

- (a) Annually, sites will be prioritized for manual gauging and teams are assigned to inspect and maintain the gauges.
- (b) After every high flow event, the rule curves (depth versus discharge) are updated/calibrated.

Field Information Teams (FIT)

As water levels increase in the creeks, rivers, and waterways, Valley Water Field Information Teams (FITs) and some City staff are deployed to known "hot spots" (Section 1.F and Attachment F) to visually monitor and report back to a DOC or EOC the conditions in the field and to document or map any flooding that occurs. In addition, Valley Water FITs and City staff can also monitor potential issues with surface drainage and identify debris blockages. Deployment of these teams should be coordinated between the City's EOC/DOC and Valley Water's EOC/DOC.

Evaluation—After detecting and gathering adequate intelligence regarding the situation, an evaluation of the water way conditions must be performed by appropriate personnel that typically includes SMEs.

Classification—Based on evaluation of the threat, a specific threat level will be identified and documented at the Valley Water EOC/DOC (or other facility) and communicated to the City EOC/DOC so all appropriate staff recognize the determined flood condition level (Table 1 - Monitoring, Watch, or Warning). If possible, the severity of flooding will also be determined, documented and communicated. The severity is consistent with the NWS and are: action, minor, moderate, and major with the affected areas described (Table 2 and Attachment E). The Valley Water ALERT website link for flood severity readings at Edmundson Ave is: https://alert.valleywater.org/?p=sensor&sid=5117&disc=f

B. STEP 2: NOTIFICATION AND COMMUNICATION

After the flood condition level has been determined, appropriately communicating the situation to responsible agencies, staff, and other identified individuals and groups is critical. Notification may include City, Valley Water, other stakeholders, elected officials, and the National Weather Service. The contact list is in Attachment A-1.

Except for elected officials, the City, Valley Water and other Agency Stakeholders generally will maintain a roster of who fills each emergency operations role for EOC activation. Whoever is designated to fill these roles should consider alternate persons to account for vacation, sick leave, etc. When a Valley Water EOC is convened in response to an event on West Little Llagas Creek, contact information will be provided to City of Morgan Hill Office of Emergency Service. Contact information would include office and mobile phone numbers, e-mail, and other pertinent data (Attachment A-2 provides information for some of the Valley Water personnel).

Within the City EOC, e-mail accounts generally are utilized that match the role the person is fulfilling. This allows responders to leave information for incoming staff. It also allows for a common repository for information.

An emergency radio plan may be developed, along with the previously-mentioned virtual meeting options. Valley Water and City vehicles have radio interoperability systems that can (1) communicate on just about any radio system and (2) can "patch" (link) disparate systems together.

The following provides guidance to Valley Water for notification and communication after the emergency level has been determined.

Emergency Level Green—Preparedness:

Potential situation is identified by Valley Water and appropriate Valley Water staff shall be notified and will further evaluate the situation. No notification to the City is necessary at this level.

Emergency Level Yellow—Monitoring:

If the DOC has not been activated, then the Watersheds Field Operations Unit Manager or Operations & Maintenance Engineering Support Unit Manager shall contact the City designated response personnel by phone or electronically, notifying them of the situation and what actions are being taken.

Emergency Level Orange—Watch:

The following message from the Valley Water EOC may be used to help describe the emergency to the City designated response personnel, Santa Clara County Communications, Caltrans, and California Highway Patrol emergency management personnel.

Be as specific as possible regarding the flood severity and urgency of the event and messages should be coordinated to avoid duplication or confusing information.

"This is (identify yourself: name and position from Valley Water)

please call the following alternative number

We have a potential emergency condition developing along West Little Llagas Creek at (nearest cross street) that CHOOSE ONE—(1) is occurring, or (2) is inticipated to occur within 24 to 72 hours.		
Valley Water has activated our Emergency Operations Center and are currently operating under our Emergency Level Orange or Flood Watch Condition.		
We are implementing actions to respond to a rapidly developing situation that could result in bank over topping and flooding.		
Please note that low lying portions along West Little Llagas Creek may flood.		
We will advise you when the situation is resolved or if the situation gets worse.		
I can be contacted at the following number . If you cannot reach me,		

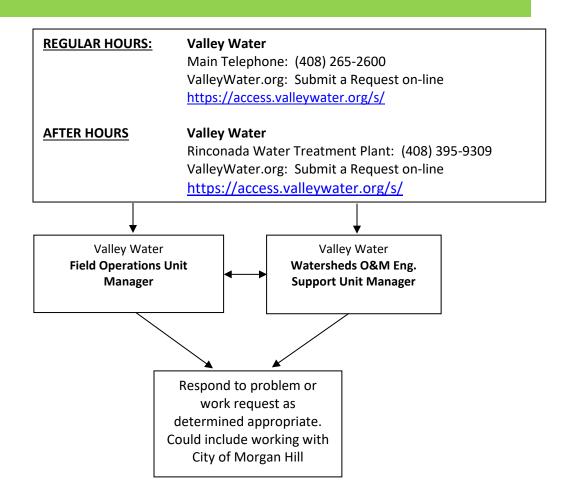
Emergency Level Red—Warning:

The Valley Water EOC shall immediately contact the City and Santa Clara County EOCs so they can notify emergency responders (Attachment A-1). The following actions should be taken:

1.	The Valley Water EOC should call the City designated response personnel and County Office of Emergency Management (Attachment A-1). Be sure to say, "This is an emergency." The City and/or County will call other authorities and the media and begin the evacuation. The following message may be used to help describe the emergency to the City or County.
	"This is(identify yourself: name and position from Valley Water)
	West Little Llagas Creek at <u>(cross street)</u> is overtopping and flooding occurring in the low lying areas and we recommend that you consider necessary emergency actions. Repeat, West Little Llagas Creek is flooding at <u>(cross street)</u> , and you may want to consider emergency actions in the low lying areas along the creek.
	I can be contacted at the following number If you cannot reach me, please call the following alternative number"

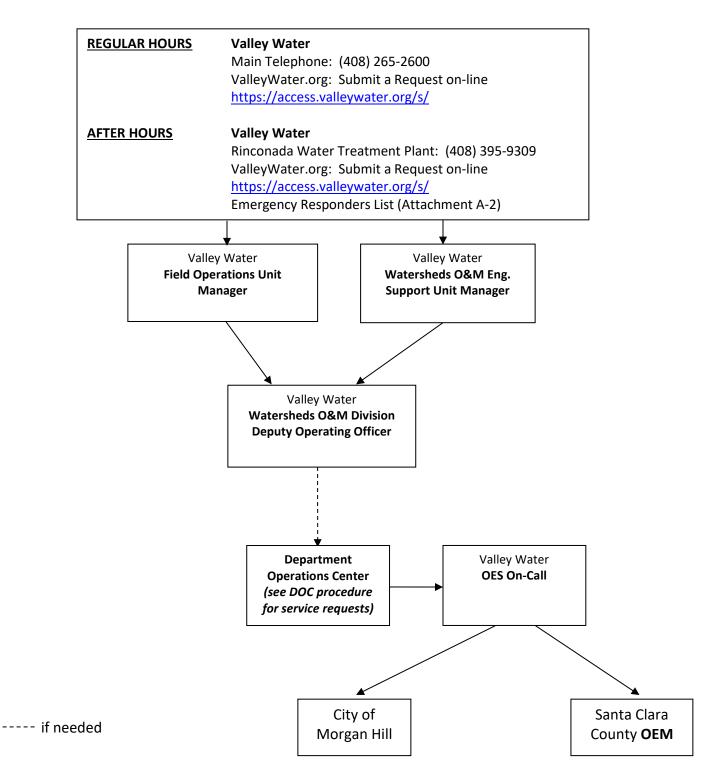
2. The Valley Water EOC Director shall assure that the City and County EOCs are frequently contacted to keep them up-to-date on the condition of the creek and water levels.

Emergency Level Preparedness Notification

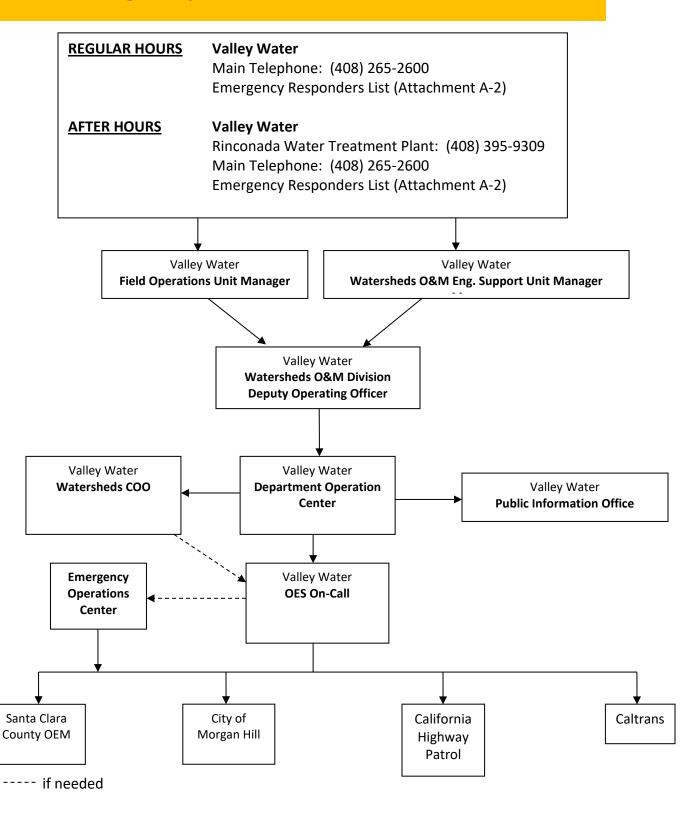


Emergency Level Monitoring Notification

Monitoring

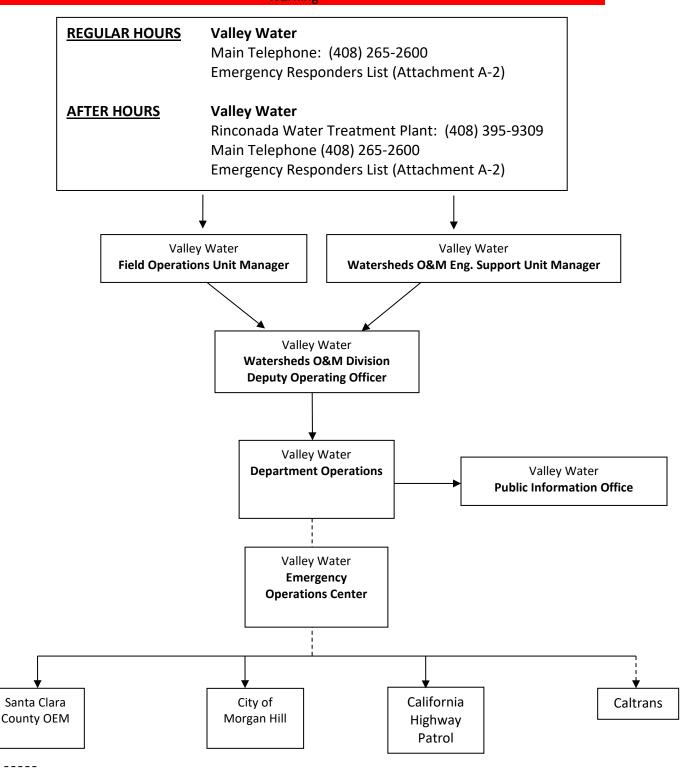


Emergency Level Watch Notification



Emergency Level Warning Notification

Warning



WEST LITTLE LLAGAS CREEK EMERGENCY ACTION PLAN R14456 (01/17/24) 19 PUBLIC

C. STEP 3: EMERGENCY ACTIVITY/ACTIONS

Based on the event and condition classification, activity/actions by the City, Valley Water and other stakeholders will be determined. The list of responsibilities provided in Table 3 illustrate in general terms what actions are needed at each threat level, and whether the City or Valley Water have the lead responsibility. More detail on actions and how and when the action is to be completed is typically developed by the DOC/EOC as an Action Plan (AP). Attachment D recommends emergency remedial actions to take during specified field conditions.

TABLE 3: Progressive Responsibilities

Level	Responsibility/Activity	Stakeholder*
20701	Provide technical data on mitigation and preparedness measures.	Each Stakeholder is lead for own agency resources.
	 Conduct field inspections of creeks and facilities. 	Each parcel owner is lead in own right of way.
	 Maintain property for flood preparedness. 	Each parcel owner is responsible.
	Inventory and Procure Flood Fighting Materials and Equipment.	Each Stakeholder is lead for own materials and equipment.
	Perform mitigation work to reduce flood risk.	Each Stakeholder is lead on own right of way. By agreement can release to others.
Preparedness (Green)	Coordinate with Federal Emergency Management Agency (FEMA) regarding the National Flood Insurance Program (NFIP) Community Rating System (CRS) certification.	City is lead and Valley Water is support.
Pre)	 Implement and enforce building codes for building in floodplains. 	City is lead.
	 Provide technical floodplain mapping expertise. 	Valley Water is lead.
	 Maintain equipment, gauges, telemetry, etc. Develop and maintain computer models of watersheds and creeks. 	Valley Water is lead.
	 Participate in winter preparedness workshop. Participate in annual EAP review/exercise/ updates as appropriate. 	City is lead.
	 Update EAP and Contact/Roles list and provide revisions to Stakeholders. 	Valley Water is lead.

Level	Responsibility/Activity	Stakeholder*
	Manage flood information websites.	Each Stakeholder manages own sites; points to Valley Water site.
	 Publish Preparedness Public Outreach (e.g., Winter Preparedness) in multiple languages. 	Valley Water is lead.
	 Provide public education in multiple languages. 	Each Stakeholder is lead for own agency resources.
	 Provide resources to support on-going activity to support this EAP and mitigation efforts along waterways in multiple languages. 	City and Valley Water are lead for their own agency resources.
	 Review and update EAP and provide copies of revised EAP to all current roles who received original EAP. 	Valley Water is lead.
	 Activate the EAP for "Monitoring" 	Valley Water is lead.
	 Notify staff about the increased condition level. 	Each Stakeholder is lead for own staff.
	 Conduct formal monitoring, communicate via virtual systems; communicate with DOC/EOC Director to determine next level of activation. 	Each Stakeholder is lead for own agency resources.
	 Communicate risk to DOC/EOC representatives. 	Each Stakeholder is lead within their agency.
Monitoring (Yellow)	 Respond to, and mitigate, minor events as needed; coordinate with each responding agency. Stage equipment at localities likely to be affected as needed; coordinate with each responding agency. 	Each Stakeholder is lead for own materials and equipment.
Mon (Ye	Provide public education in multiple languages.	Each Stakeholder collaborates and is lead to their constituents.
	 Provide information to Elected Officials. 	Each Stakeholder PIO is lead for own agency.
	 Confer with EOC Director on conditions for activating next level. Identify location for flood fighting resources for the public (e.g. sandbag locations). 	Valley Water is lead.
	 Check and clean (if needed) Trash Rack at Main Ave. 	County is lead with Valley Water support if available.
	 Check Valley Water hot spots and problem areas. 	Valley Water is lead.

Level	Responsibility/Activity	Stakeholder*
	 Review evacuation planning needs. Deploy pumps at Bisceglia and Tennant as needed. Prefilled sandbags deployed to key locations. Open Depot Street sandbag station as needed. 	City is lead and Valley Water is lead for Valley Water sandbag locations.
	Activate the EAP for "Watch."	Valley Water is lead.
	 Manage information from the DOC or like facility. Allow the DOC (or like facility) to manage field response. Communicate risk to EOC representatives. 	Each Stakeholder is lead for own agency.
	Notify staff about the increased condition level.	Each Stakeholder is lead for own agency.
	 Confer with responding DOC/EOC Director to determine response coordination needs and resources needs. 	Each Stakeholder is equally responsible for cross coordination.
	 Respond to, and mitigate, minor events as needed; coordinate with each responding agency. Stage equipment at localities likely to be affected as needed; coordinated with each responding agency. 	Each Stakeholder is lead for own materials and equipment.
Watch (Orange)	Update location for flood fighting resources for the public and supply additional resources as needed (e.g. sandbag locations).	Valley Water is lead.
	Provide public information in multiple languages.	Each Stakeholder collaborates and is lead to their constituents.
	 Provide information to Elected Officials. Communicate with media as needed. 	Each Stakeholder PIO is lead for own agency.
	 Provide public warning in multiple languages. 	City is lead, County is key support.
	Provide information on impact and available resources to and from respective EOCs.	Each Stakeholder is lead for own agency resources.
	 Confer with EOC Director on conditions for potential evacuation and shelter support. 	City EOC Staff is lead.
	 Confer with EOC Director on conditions for activating next level. Prepare to open shelters. 	City is lead.

Level	Responsibility/Activity	Stakeholder*
	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.
	 Communicate risk to EOC representatives. 	Each Stakeholder is lead within their agency.
	Provide public information in multiple languages.	Each Stakeholder collaborates and is lead to their constituents.
	 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.
	 Coordinate resources through respective EOCs. 	Each Stakeholder is lead for own resources.
	 Proclaim Local Emergency as appropriate. 	City EOC Director is lead.
* If only one Stakeholder is noted as lead, all other Stakeholders support the effort.		

D. STEP 4: TERMINATION

Following response to an emergency, Valley Water and City will determine when to enter into recovery activities. In an Emergency Level Preparedness, Monitoring, or Watch event the Valley Water EOC or, if EOC is not open, DOC Director is responsible for terminating the EAP operations and relaying this decision to each person notified during the original event that the event has been terminated. Decisions on how long the DOC/EOC remains open depends on the conditions, needs of the community, and need to return to regular operations.

An Emergency Level Warning event will likely involve the evacuation of residents and be managed by County or City. Prior to the termination of Emergency Level Warning event, Valley Water will inspect the breakout point(s) and determine if any damage has occurred that could potentially lead to further events. If it is determined that conditions do not pose a threat to people or property, then Valley Water will recommend terminating the EAP operations.

The DOC or EOC Director will ensure that an Emergency Situation Report and/or AAR is completed to document the emergency event, including all actions that were taken, lessons learned, and areas for improvement.

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ATTACHMENT A-1 EMERGENCY SERVICES CONTACT LIST

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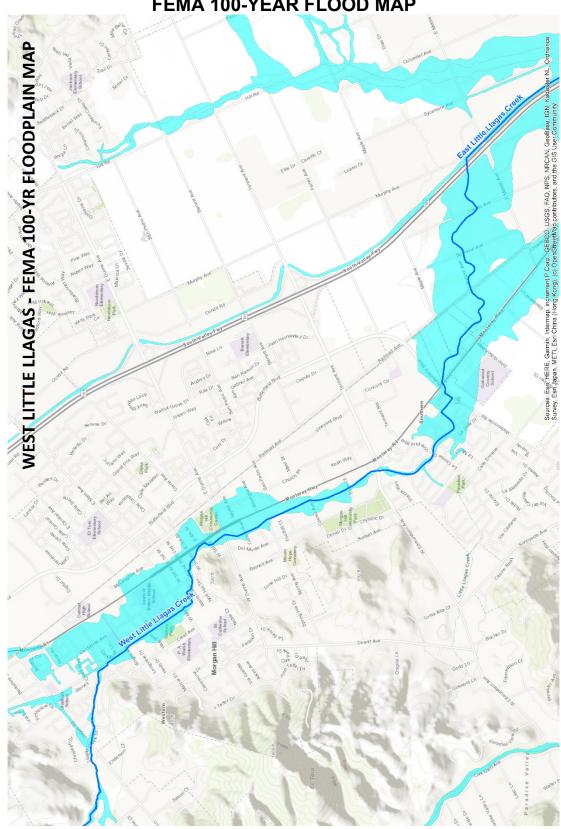
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ATTACHMENT A-2 VALLEY WATER EMERGENCY CONTACTS

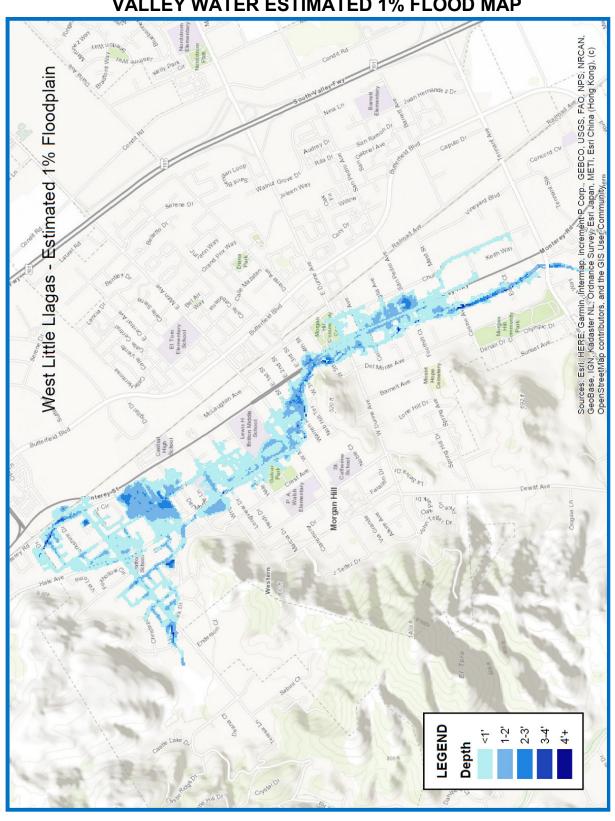
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ATTACHMENT B-1 FEMA 100-YEAR FLOOD MAP



ATTACHMENT B-2
VALLEY WATER ESTIMATED 1% FLOOD MAP



ATTACHMENT B-3 FLOODING HISTORY

1967: 2ft of sheet flow across Watsonville Rd and mushroom farm on the south side of Watsonville Rd was inundated 1 ft; 1 ft depth flood from Fitzgerald Ave to Day Rd; considerable sheet flooding in area bounded by Day Rd, Kern Ave, and westerly extension of Ronan Ave; flooding topped Kern Ave resulting in evacuation of several homes in the area

1978: Minor flooding observed on properties adjacent to the creek at Llagas Ave

1982: Flooding at Llagas Rd, water reached doorstep of houses and businesses on Llagas Rd past Hale Ave and flowed north along Hale Ave; most severely flooded at confluence with Edmundson Creek and East Little Llagas Creek; water 4 ft deep on La Crosse Dr closing street; widespread flooding in San martin in low areas

1983: Flood water left channel at Llagas Rd and flowed to Carriage Dr and Shadowbrook Way; flooding on Wright Ave, between LaCrosse Dr and Watsonville Rd, and Paradise Valley school; flooding on Gilroy Foods parking lot and buildings

1995: Flooded Maple Leaf recreational vehicle park with as much as 3 ft water; flows between Southern Pacific Railroad and La Crosse Dr, Wright Ave and adjacent open field, Hale Ave, and upstream and downstream of Llagas Rd

1997: Flooding at Tilton Ave at Llagas Rd crossing; overbanking caused street flooding on Llagas Creek Dr; one house flooded on northeast corner of Llagas Rd and Llagas Creek Dr; flooding on Llagas Rd and Shadowbrook Way; 2.5 ft at Hale Ave and Wright Ave; 2 houses flooded at Hale Ave and West Main Ave with 1.5 ft flooding on street; water surrounded Countryside Day Care on West Main St; street flooding throughout downtown Morgan Hill; Maple Leaf RV Park extensive flooding with 130 recreational vehicles moved; flooding near Middle Ave and Monterey Highway damaging 17 homes

1998: Overbanked at West Main St and Hale Ave flooding streets and garages along West Main Street

2009: Overflowed Llagas Rd and Hale Ave, between Main Ave and 5th Ave, and neighborhood south of 1000 block of West Edmundson Ave and north of Watsonville Rd

2017: Flooding upstream Llagas Rd through Llagas Creek Dr, Christeph Dr, Carriage Dr, Shadowbrook Way, and Murphy Springs Dr; flooding along Main St between Hale Ave and Monterey Rd; flooding at intersection of Watsonville Rd and Monterey Rd

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ATTACHMENT C AVAILABLE RESOURCES

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ATTACHMENT D GUIDANCE FOR EMERGENCY REMEDIAL ACTIONS

If time and conditions permit, the following emergency remedial actions should be considered for Emergency Level Yellow 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. See Resources Available (Attachment C).

BANK EROSION

1. If water is no longer rising, erosion scour may be filled with rock, sandbags, plastic sheeting or materials to prevent further loss of soil.

EMBANKMENT OVERTOPPING

1. If water level is no longer rising, place sandbags along the low areas of the top of the bank to reduce flow concentration during minor 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 pier noses and trash racks.

ATTACHMENT E WEB-BASED DATA SOURCES

RAIN GAUGES:

- West Little Llagas Station—https://alert.valleywater.org/?p=sensor&sid=6139&disc=f
- Edmundson Avenue Station—https://alert.valleywater.org/?p=sensor&sid=6143&disc=f
- Church Percolation Ponds Station—
 https://alert.valleywater.org/?p=sensor&sid=6134&disc=f

STREAM FLOW STATION:

Edmundson Avenue Station—https://alert.valleywater.org/?p=sensor&sid=5117&disc=f

OTHER SITES:

- Valley Water Submit a Request—https://access.valleywater.org/s/
- Valley Water Flood Ready—https://www.valleywater.org/flooding-safety/flood-ready
- Valley Water Flood Severity— https://alert.valleywater.org/?p=sensor&sid=5117&disc=f
- Valley Water Homepage—http://valleywater.org/
- Valley Water Flood Protection Resources—https://www.valleywater.org/floodready
- Valley Water ALERT Map— https://alert.valleywater.org/?p=map&disc=f
- Valley Water Sandbags— https://www.valleywater.org/flooding-safety/flood-ready/sandbags
- Valley Water Webcams:
 - West Little Llagas Creek Upstream of Llagas Road -https://valleywateralert.org/scvwd/webcams/site.php?cid=9005
 - Hale Avenue Trash Rack https://valleywateralert.org/scvwd/webcams/site.php?cid=9017
 - West Little Llagas Creek at West Edmundson Avenue https://valleywateralert.org/scvwd/webcams/site.php?cid=5117

WEATHER:

- National Weather Service Observations— https://water.weather.gov/ahps2/index.php?wfo=mtr
- National Weather Service Forecasts—
 https://water.weather.gov/ahps2/forecasts.php?wfo=mtr
- FEMA Flood Map Search—https://msc.fema.gov/portal/search

ATTACHMENT F FIELD INFORMATION TEAM HOT SPOTS

