WEST LITTLE LLAGAS CREEK
Emergency Action Plan Quick Guide

EAP Last Revised: January 2024

This guide summarizes key information/guidelines as described in the 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.

1.A Purpose of EAP (Page 1)

- To enhance coordination and communication between the Santa Clara Valley Water District (Valley Water) and the City of Morgan Hill (City).
- To provide guidance and an approach to ensure communications, planning, and implementation between the agencies regarding threatened and actual flooding emergencies.
- To facilitate:
  1. Pre-incident planning prior to a storm/flood event.
  2. Coordination of interagency response and recovery operations.
  3. Collaboration on public messaging for potential, imminent, and actual flooding along the West Little Llagas Creek in Morgan Hill.

1.B Limitations of EAP
(Pages 1-2)

- The EAP shall not constrain the Incident Commander or others when dealing with flooding on West Little Llagas Creek.
- The EAP provides oversight and guidance and does not replace or override existing plans, authorities, or responsibilities.
- It is not intended to set precedent or commit resources without knowledge of the conditions that may occur.

1.G West Little Llagas Creek Description (Page 4)

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 phase 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.

1.F Potential Impacted Areas
(Page 3)

Valley Water has identified the following potential flooding areas:

- Llagas Road
- Wright Avenue & Hale Avenue
- West Main Avenue & Hale Avenue
- Dunne Ave to West Main Ave
- Monterey Road & Bisceglia Avenue
- Watsonville Rd
- Maple Leaf RV Park
- Seymore Ave

See Attachment B (pages 26-28) for more flood information and maps of flood areas and Attachment F for maps of hot spots (pages 33-37).

2.A EAP Personnel (Page 6)

The EAP relies on the designated level of authority provided to each Stakeholder representative. 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.

- **SUBJECT MATTER EXPERTS (SME)** - Staff from the City, Valley Water and other 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.
  - 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.
- **PUBLIC INFORMATION OFFICER (PIO)** - Staff from the City, Valley Water and other Stakeholders who have experience with managing and disseminating information to the public.

- 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.

- **ELECTED OFFICIALS** - Through each Agency PIO or Liaison staff, elected officials will be contacted and kept informed of the situation during the Potential Flooding Situation and Warning stages and provided with appropriate public messaging.

2.D Emergency Level Descriptions (Pages 7-9)

The concepts and activities described in the EAP are associated with the level of storm or flood threat. The 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 and flood severity levels shown below are consistent with the National Weather Service (NWS). Gauge data, flood severity thresholds, forecasts and webcams are shown on the Valley Water website: https://alert.valleywater.org/?p=map&disc=f.

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.

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.
Minor Flooding (Orange)	Minimal or no property damage, but possibly some public threat (e.g., inundation of roads). 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.
Moderate Flooding (Red)	Some inundation of structures and roads near stream, evacuations of people and/or transfer of property to higher elevations. 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.
Major Flooding (Purple)	Extensive inundation of structures and roads, significant evacuations of people and/or transfer of property to higher elevations. 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 (page 32) for the West Edmundson Avenue stream flow station website link.**
****See Attachment E (page 32) 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 (Page 10-23)

The EAP is always active because preparedness is a year-round activity. Once a potential or actual event is detected, responding in a coordinated way and collaborating on post incident recovery follows a progression of actions. The level of activity will be guided by the best information available to the Agency SMEs and DOC/EOC Director. The "call to action" may be a series of phone calls among the SMEs and DOC/EOC Director to determine the next steps.

When mobilizing the EAP for a weather condition that may pose a flood threat, there are four general steps that are taken.

STEP 1 **Detection, Evaluation, & Classification (Pgs 12-13)**

Detection: uses data from weather forecasts, Field Info Teams, hydrologic / hydraulic modeling, and ALERT gauges.

STEP 2 **Notification & Communication (Pgs 13-15)**

Based on condition level, notifications will be made to respective agency personnel and elected officials. Contacts lists are in Attachments A-1 & A-2 (pages 24-25).

STEP 3 **Emergency Activity & Actions (Pg 20)**

Based on classification, actions for agencies will be determined. Table 3 (pages 20-23) identifies progressive levels of actions. This table is shown below in 3.C.

STEP 4 **Termination (Pg 23)**

Valley Water and City will determine when to enter into recovery activities.

3.A Event Detection, Evaluation & Classification (Pages 12-13)

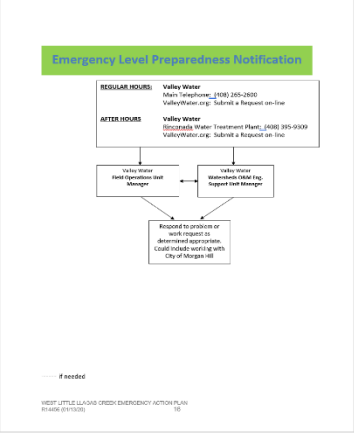
This step describes the detection of an unusual or emergency event and provides information to assist Valley Water in determining the appropriate emergency level for the event. Unusual or emergency events may be detected by:

- Forewarning of conditions that may cause an unusual event or emergency event such as weather forecasts for flash flooding or severe weather. Often the National Weather Service will host WEBINARs with agencies to discuss conditions and concerns. See Attachment E Web-Based Data Sources (page 32).
- Hydrologic/Hydraulic Modeling is often performed by Valley Water and sometimes by the NWS based on forecast weather and watershed conditions that can help estimate timing and severity of an event.
- Observations and inspections along the creek by agency personnel, volunteers, landowners, or the public
- Evaluation of stream gauge or rainfall gauge data. See Attachment E Web-Based Data Sources (page 32)

Valley Water evaluates the intelligence gathered regarding the threat and will identify the level of threat and, if possible, the expected severity and communicate that to the City and all appropriate staff. If available, Valley Water will also provide estimated flood maps to assist in developing Action Plans. City shall make their own decision on actions based on Valley Water provided information and local conditions.

3.B Notification & Communication (Pages 13-19)

Notification: After the emergency level has been determined, there are notification charts for each emergency level which identify the appropriate roles to be notified immediately for each agency.



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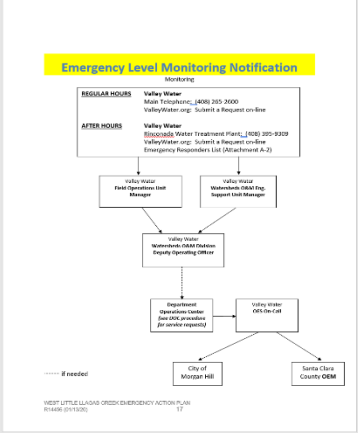

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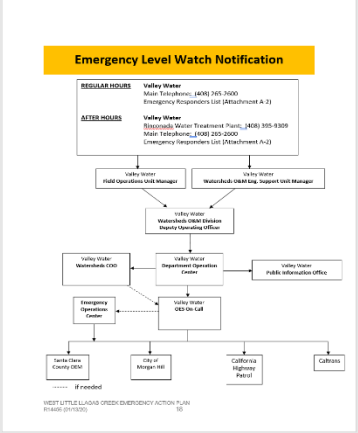

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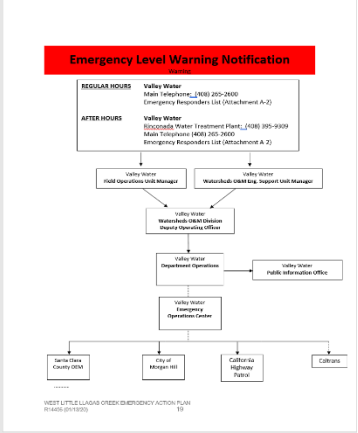

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Communication (Pages 13-15)

- **Emergency Level Green**
  - Potential situation is identified by the Valley Water and appropriate Valley Water staff shall be notified and will further evaluate the situation. No notification to the City is required at this level.
- **Emergency Level Yellow – Monitoring**
  - If the Valley Water DOC has not been activated, then the Field Operations or Engineering 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 (Potential flooding situation)**
  - A template message from the Valley Water EOC (page 14) may be used to help describe the emergency situation to the City designated response personnel, Santa Clara County Communications, Cal Trans, and California Highway Patrol emergency management personnel.
- **Emergency Level Red – Warning**
  - The Valley Water EOC shall immediately contact the City and Santa Clara County EOCs so they can notify emergency responders and have the affected area evacuated. A template message (page 15) may be used to help describe the situation.
  - The Valley Water EOC shall keep in frequent contact with the City and County EOCs to keep them up-to-date on the condition of the creek and water levels. They will tell you how you can help handle the emergency.
  - If all means of communication are lost: 1) try to find out why, 2) try to get another radio or telephone that works, or 3) get someone else to try to re-establish communications. If these means fail, handle the immediate problems as well as you can, and periodically try to reestablish contact with the City and County EOCs and emergency services.

3.C Emergency Activity/Actions (Pages 20-23)

As the weather conditions and /or level of threat change, the responsibilities of the City, Valley Water and other Stakeholders adjust. The list of progressive responsibilities is provided in Table 3 (pages 20-23) illustrate in general terms what actions are needed at each threat level, and who has the lead responsibility. Additional emergency remedial action for specified field conditions is provided in Attachment D (pages 31).

Based on the event and condition classification, activity/actions by the City, Valley Water and other stakeholders will be determined. Table 3, which is shown below, identifies progressive levels of activation and actions for each emergency level.

Progressive Responsibilities

Level	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.	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.
	• 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.
	• Implement and enforce building codes for building in floodplains.	**City** is lead.
	• Provide technical floodplain mapping expertise.	**Valley Water** is lead.

Level	Responsibility/Activity	Stakeholder*
	• 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.
	• 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.
Monitoring (Yellow)	• 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.
	• 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.
	• 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.
	• 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.
Watch (Orange)	• 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.

Level	Responsibility/Activity	Stakeholder*
	• 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.
	• 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.
	• 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.		

3.D. Valley Water Termination & Follow-up (Page 23)

Whenever the EAP has been activated, an emergency level declared, all EAP actions have been completed, and the emergency is over, the EAP operations must eventually be terminated and follow-up procedures completed.

Termination Responsibilities

- In an Emergency Level Preparedness, Monitoring, or Watch Situation event, the Valley Water DOC/EOC 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.
- An Emergency Level Warning event may 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 the Flood Emergency Situation Report or After-Action Report is completed to document the emergency event, including all actions that were taken, lessons learned, and areas for improvement.

1.I Maintenance of EAP (Pages 4-5)

Valley Water Watersheds O&M Division will review and, if needed, update the EAP at least annually.

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.

If the EAP has not been included as part of another training effort or activated over a 5-year period, the Watersheds O&M Engineering Support Unit Manager will work with Emergency Services & Security Unit to facilitate a test of the EAP.

Attachments (Pages 24-37)