

City of Livermore Hazard Mitigation Plan Midterm Progress Update

Reporting Period: June 25, 2018- June 30, 2021

Background: The Cities of Dublin, Livermore and Pleasanton, and participating local jurisdictions, developed a hazard mitigation plan to reduce risk from all hazards by identifying resources, information, and strategies for risk reduction. The federal Disaster Mitigation Act of 2000 requires state and local governments to develop hazard mitigation plans as a condition for federal disaster grant assistance. To prepare the plan, the participating planning partners organized resources, assessed risks from natural hazards, developed planning goals and objectives, reviewed mitigation alternatives, and developed an action plan to address probable impacts from natural hazards. By completing this process, these jurisdictions maintained compliance with the Disaster Mitigation Act, achieving eligibility for mitigation grant funding opportunities afforded under the Robert T. Stafford Act. The plan can be viewed on-line at:

Volume 1-Planning Area Wide Elements:

<http://www.cityoflivermore.net/civicax/filebank/blobdload.aspx?t=61299.29&BlobID=18349>

Volume 2 – Planning Partner Annexes:

<http://www.cityoflivermore.net/civicax/filebank/blobdload.aspx?t=61299.29&BlobID=18350>

Summary Overview of the Plan's Progress: The performance period for the Hazard Mitigation Plan became effective on June 25, 2018, with the final approval of the plan by FEMA. The initial performance period for this plan will be 5 years, with an anticipated update to the plan to occur before June 25, 2023. As of this reporting period, the performance period for this plan is considered to be 60% complete. The Hazard Mitigation Plan has targeted 42 hazard mitigation actions to be pursued during the 5-year performance period. As of the reporting period, the following overall progress can be reported:

- 32 out of 42 actions (76%) reported ongoing action toward completion.
- 4 out of 42 actions (10%) were reported as being complete.
- 6 out of 42 actions (14%) reported no action taken.

Purpose: The purpose of this report is to provide an annual update on the implementation of the action plan identified in the Hazard Mitigation Plan. The objective is to ensure that there is a continuing and responsive planning process that will keep the Hazard Mitigation Plan dynamic and responsive to the needs and capabilities of the planning partners. This report discusses the following:

- Natural hazard events that have occurred within the last year
- Changes in risk exposure within the planning area
- Mitigation success stories
- Review of the action plan
- Changes in capabilities that could impact plan implementation
- Recommendations for changes/enhancement.

The Hazard Mitigation Plan Steering Committee: The Hazard Mitigation Plan Steering Committee, made up of planning partners and other stakeholders within the planning area, reviewed and approved this progress report at its annual meeting held on July 23rd, 2021. It was determined through the plan's development process that a steering committee would remain in service to oversee

maintenance of the plan. At a minimum, the Steering Committee will provide technical review and oversight on the development of the annual progress report. It is anticipated that there will be turnover in the membership annually, which will be documented in the progress reports. For this reporting period, the Steering Committee membership is as indicated in Table 1.

Table 1. Steering Committee Members			
Name	Title	Jurisdiction/Agency	Contact
Tracy Hein	Emergency Manager	LPRD	thein@lprfire.org
Herbert Cole	Emergency Manager	City of Livermore	hmcole@cityoflivermore.net
Susan Frost	Special Projects Coordinator	City of Livermore	smfrost@cityoflivermore.net
Pamela Lung	Senior Civil Engineer/Floodplain Manager	City of Livermore	pglung@cityoflivermore.net
Joel Waxdeck	Assistant City Engineer	City of Livermore	jhwaxdeck@cityoflivermore.net
Edward Reyes	Assistant Civil Engineer	City of Livermore	eireyes@cityoflivermore.net
Sean O'Reilly	Associate Engineer	DSRSD	oreilly@dsrsd.com
Leo Lopez	Training and Emergency Manager	City of Pleasanton	llopez@cityofpleasantonca.gov
John Stefanski	Assistant to the City Manager	City of Dublin	john.stefanski@dublin.ca.gov
Shweta Bonn	Senior Planner	City of Pleasanton	sbonn@cityofpleasantonca.gov

Hazard Events within the Planning Area: During the reporting period, there were three natural hazard events and three human-induced hazard events in the planning area that had a measurable impact on people or property. A summary of these events is as follows:

2019 Cyber Attack: In September 2019, The City of Livermore was the target of a ransomware attack. The City ultimately did not pay a ransom to the threat actors in accordance with advice from law enforcement agencies. Ultimately, the threat did not result in any reportable data theft and City networks were repaired and restored systematically over a six-week period. The Cyber-attack created many operational challenges. The attack resulted in the complete loss of the city’s phone system for a few days and the loss of email for more than a week. Some data, including Geographical Information System files, were inaccessible for about two weeks. While the city’s 911 system was not impacted, the attack knocked out a computer-aided dispatch system used by the Livermore Police Department. It also temporarily prevented police officers from obtaining law enforcement records from the field, although records were still available at the police station. The City has been vigorously updating our information technology systems, assessing and addressing cyber-security issues. This event has highlighted the need to create and maintain a secure, flexible information technology framework as well as the need to adopt an over-arching cybersecurity governance policy.

2019 Power Safety Shutoffs: To lessen the risk of fires PG&E proactively shut off power to some areas in the City of Livermore.

2020 Granada Channel Flood: On March 17, 2020, Granada Channel flooded after relatively minor

rains. Stormwater backed up all the way to Concannon Boulevard, flooding the basement of a home and two buildings at the Mendenhall School.

2020/ 2021 Covid-19 Pandemic: An outbreak of a highly infectious coronavirus disease (COVID-19) caused by SARS-CoV-2 began in Wuhan, Hubei Province, China in December 2019, and has spread throughout China and to numerous countries and territories including the United States. Based upon the Alameda County Public Health Department confirming evidence of community-acquired transmission within Alameda County and the President of the United States declaring a National State of Emergency, On March 13, 2020, The City of Livermore declared a local emergency to strengthen its ability to respond COVID-19. In March, Livermore's local economy experienced a sudden and dramatic slow-down as a result of the regional 'shelter-in-place' directive in response to the COVID-19 pandemic. The shelter-in-place order along with the pandemic event in general, are expected to have the most dramatic impact on sales tax revenue and transient occupancy tax revenue. Sales tax projections were reduced by 11% or \$4.1 million for the current fiscal year and 18% or \$6.8 million for next fiscal year. Transient occupancy tax (TOT) projections were reduced by roughly 35% or \$1.3 million for the current fiscal year and 35% or \$1.6 million for next fiscal year. The City also incurred unplanned costs, such as the \$100,000 contribution to the COVID-19 drive-through testing center at the Alameda County Fairgrounds, additional costs for cleaning services and supplies, and providing temporary shelter and services for the most vulnerable members of the community. In addition to the direct costs mentioned above, the City incurred additional costs associated with providing essential services via alternative delivery models necessary to comply with the shelter-in-place orders.

SCU Complex Fire: On August 16, 2020 a lightning storm passed through the Livermore area and started numerous fires in unincorporated Livermore and the surrounding region. The LPPFD played significant response and Incident Command roles in the initial phases of these fires while resources were brought in from around the state. Fires burned in Alameda, Contra Costa, Santa Clara and San Joaquin Counties, leading smoke to fill the Livermore area with little or no relief provided by shifts in the wind. Poor air quality was a major concern for the community.

2020/2021 Drought and Extreme Heat: In May 2021, Governor Gavin Newsom extended a drought proclamation to cover 41 California Counties, including Alameda County. Extraordinarily warm temperatures in April and early May 2021 separate this critically dry year from all others on California record. Low amounts of local and statewide rainfall, low reservoir levels throughout the state, and low Sierra snowpack have resulted in significant drought conditions that have impacted water supplies in the Tri-Valley. California experienced an accelerated rate of snow melt in the Sacramento, Feather and American River watersheds, which feed the major reservoirs of the state and federal water projects. This was exacerbated when much of the snowpack, sitting on very dry ground, seeped into the earth rather than flowing into our rivers and streams and into these reservoirs. In response to these conditions, the Tri-Valley's water agencies, which include Livermore Municipal Water, Cal Water, and Zone 7 Water Agency, issued a joint press release asking customers to voluntarily reduce their water use by 15%. As of mid-July 2021, Tri-Valley water agencies were not planning to institute non-voluntary measures to reduce water usage, but this may change as drought conditions develop. The City of Livermore has been implementing water efficiency measures since the previous drought in an effort to reduce water usage in municipal operations on an ongoing basis. Actions include updating irrigation controllers to be more efficient, renovating street medians to be less water-intensive, and replanting areas from turf to reduced plantings with targeted irrigation on City property.

Changes in Risk Exposure in the Planning Area:

The COVID-19 pandemic revealed the risks of pandemics to the Livermore community. COVID-19 is

a highly infectious respiratory illness that has not been fully contained. There have been 2,239 cases of COVID-19 in the City of Livermore, and as of early July 2021 74.1 % of the community above 12 years of age had been vaccinated. While the successful development and deployment of vaccines to the community have greatly reduced the immediate risks of the virus, the virus continues to circulate in Livermore and surrounding communities, and there is a risk of variants of the virus causing a resurgence in the Planning area. The impact of the COVID-19 virus has also highlighted the risks of future pandemics and their impact on the Livermore community, both in terms of public health, economic impact, and impact on community operations.

The SCU Complex Fire was caused by a rare summer dry lightning. An unusual combination of very hot, dry air at the surface, and dry fuels led to massive fire complexes across Northern California. Though this event was rare, climate change is likely to make these types of rare summer storms more likely to occur. The Tri-Valley continues to see the impacts of climate change on the local level, as seen in current drought conditions. These drought conditions increase the risk of another severe fire season, although the lack of precipitation may reduce the likelihood of flooding events on a year-to-year basis.

Mitigation Success Stories:

Flood Hazard Mitigation: The City received two hazard mitigation grants from FEMA, one for the Arroyo Las Positas Restoration through the Golf Course and another for the Collier Canyon Debris Basin. Additionally, much of the repair work from the 2017 storms has been completed.

Cybersecurity: Following the 2019 cyber-attack, the City successfully improved security and increased training on web safety. The City also hired a cyber security specialist in order to continue increase their resiliency to these types of attacks, and is in the process of developing a Cybersecurity Plan, which will be completed by September 2021.

Electric Grid Resilience: During a record heatwave in August of 2020 and subsequent strain on California's power grid, the Water Resources Division used generator power to reduce its electrical demand on the grid. In addition, sudden or frequent power outages can damage plant equipment. Operating on generator power not only reduced the plant's electrical demand on the grid, plant infrastructure was protected, and wastewater treatment could continue uninterrupted. While the plant was generator-powered, Livermore's wastewater continued to be treated to the same quality level to ensure public and environmental health. The Water Resources Division plans to have its permanent on-site emergency generator installed and ready for use by October of 2020.

Wildfire Mitigation: The Maintenance Division has continued to take actions to mitigate fire hazards, including annual maintenance in the Springtown Open Space and vegetation management on fire breaks and in riparian areas, with a particular focus on invasive non-natives such as palm and eucalyptus trees.

Emergency Planning: The City has made great progress on emergency planning. In 2018 the City of Livermore invested in virtual emergency operations center software that was designed to allow for real time EOC operations from remote locations using an internet connection. When the pandemic hit, and our City staff were relegated to working from home, the City EOC was run virtually using this software. The EOC organization chart was updated and the Public Information Plan, Power Outage Plan, Debris Management Plan were all completed. The Continuity of Operations Plan, the Mass Care and Shelter Plan, the Volunteer/Donations Management Plan, the Pandemic Plan, the Evacuation Plan, the EOC Management and Maintenance Plan are all in progress. The City also participated in the County-wide rollout of the Zonehaven evacuation management program. The Emergency Operation Plan two-year update is also in progress. The City also enhanced its emergency management software, VEOCI and improved its ability to operate remotely. The application can now be used to coordinate with Alameda County and other cities to ensure

interoperability and seamless coordination across the Operational Area during a large event. The City has also increased emergency training for staff and COVID-19 and the SCU Lightning Complex Fires provided on-going, hands-on experience in emergency management which highlighted issues in some of the plans in development, which will be updated in response.

COVID-19 Mitigation: The City was successful in mitigating the impact of COVID-19 through both internal policies and support for the community. The City implemented a number of Covid-hardening measures to minimize the spread of COVID-19 within City buildings. COVID Hardening projects, including HVAC upgrades and air filter replacements, were implemented at City Hall, Police, and Civic Center Library, with plans to expand these upgrades to Civic Center Meeting Hall and to review their feasibility at the Water Treatment Plant. The City also took a number of actions to mitigate the spread and impact of COVID-19 within the community. The City took part in numerous regional partnerships to facilitate testing and vaccination clinics for Livermore residents, helping the community to achieve a 74% vaccination rate. The City also developed a number of creative programs to support and provide relief to local businesses and residents dealing with the economic impacts of the pandemic, from facilitating outdoor dining through outdoor dining “flex zones” to monetary grants for businesses. The City’s purchase of water barriers and metal barricades to facilitate outdoor dining could help the City mitigate future hazards as well.

Review of the Action Plan: Table 2 reviews the action plan, reporting the status of each action. Area-wide actions are identified with the prefix “AW” and actions specific to the City of Livermore are identified with the prefix “L”. Reviewers of this report should refer to the Hazard Mitigation Plan for more detailed descriptions of each action and the prioritization process.

Address the following in the “status” column of the following table:

- Was any element of the action carried out during the reporting period?
- If no action was completed, why?
- Is the timeline for implementation for the action still appropriate?
- If the action was completed, does it need to be changed or removed from the action plan?

Table 2. Action Plan Matrix

Action Taken? (Yes or No)	Timeline	Priority	Status	Status (X, O, ✓)
AW-1 —Continue to maintain a planning area-wide hazard mitigation website that will store the hazard mitigation plan and provide the public an opportunity to monitor plan implementation progress. Each planning partner can support this action by including an action in its own action plan of creating a link to the planning-area-wide hazard mitigation website.				
No			The website is currently down.	X
AW-2 —Leverage public outreach partnering capabilities in the planning area (such as Community Emergency Response Teams) to promote a uniform and consistent message on the importance of proactive hazard mitigation.				
Yes	Ongoing		The City completed the Public Information Plan and is working to enhance the Community Disaster Preparedness Education Plan, as well as expand CERT and community education and training opportunities. Staff handed out emergency preparedness materials at multiple Farmers Market events, made two public disaster preparedness presentations at the library, and created public education campaign materials for website, social media, and downtown kiosks on disaster preparedness.	O
AW-3 —Coordinate mitigation planning and project efforts in the planning area to leverage all resources available to the planning partnership.				
No				X

AW-4— Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to protect the structures from future damage, with repetitive loss and severe repetitive loss properties as a priority. Seek opportunities to leverage partnerships in the planning area in these pursuits.

Yes	Ongoing	2	Retrofitting FBO Phase I and Generator (FY 20-21)	O
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AW-5— Continue to update hazard mapping with best available data and science as it evolves, within the capabilities of the partnership. Support FEMA's RiskMAP initiative.

No	FY 20-21	3		X
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AW-6— To the extent possible based on available resources, provide coordination and technical assistance in applying for grant funding.

	Ongoing			O
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AW-7— Maintain a steering committee as a working body over time to monitor progress of the hazard mitigation plan, provide technical assistance to planning partners, manage data, and oversee the update of the plan according to schedule. This body will continue to operate under the ground rules established at its inception.

Yes	Ongoing	1		O
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AW-8— All planning partners will collaborate and share information to support the development of debris management plans for the planning area. While each planning partner will be responsible for the development of their own plans, they will attempt to standardize the content and format based on a regional template.

Yes	Complete	1	The City has completed the Debris Management Plan and it is currently pending FEMA and State approval.	✓
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L-1— Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses.

Yes	Ongoing	2	Retrofitting FBO Phase 1 and Generator (FY 20-21)	O
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L-2— Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including General Plan, Development Code, Municipal Code, Design Standards and Guidelines, Specific Plans.

Yes	In Progress	3	Amendment to the Safety Element to include TVHMP was approved by City Council 9-26-18 (Reso. 2018-163). General Plan Update and CAP updates are currently underway. Hazard Mitigation is also being considered in the Storm Drain Master Plan Update.	O
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L-3— Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.

Yes	Ongoing		<p><i>Monitoring, Evaluation, & Update-</i> The City is preparing the Midterm Progress Report in order to evaluate successes over the reporting period. The City plans to assess appropriate actions for preparing the 2021/2022 hazard mitigation plan update.</p> <p><i>Grant Monitoring & Coordination-</i> The City has pursued FEMA Hazard Mitigation grants to implement projects for the Arroyo Las Positas and Collier Canyon.</p> <p><i>Plan Integration-</i> Amendment to the Safety Element to include TVHMP approved by City Council 9-26-18 (Reso. 2018-163). Plan to integrate relevant information from the LHMP plan into the General Plan Update, Climate Action Plan Update, and Storm Drain Master Plan update.</p> <p><i>Continuing Public Involvement-</i> The City completed the Public Information Plan and is working to enhance the Community Disaster Preparedness Education Plan, as well as expand CERT and community education and training opportunities. Staff handed out emergency preparedness materials at multiple Farmers Market events, made two public disaster preparedness presentations at the library, and created public education campaign materials for website, social media, and downtown kiosks on disaster preparedness.</p>	O
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L-4—Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements:

- Enforce the flood damage prevention ordinance.
- Participate in floodplain identification and mapping updates.
- Provide public assistance/information on floodplain requirements and impacts.

Yes	Ongoing	1	The City exceeds the minimum NFIP requirements. The City continues to work to maintain a good standing and is compliant under NFIP. The City CRS rating was upgraded to a Class 6.	O
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L-5—Identify and pursue strategies to increase adaptive capacity to climate change including, but not limited to, updates of the General Plan and Climate Action Plan.

Yes	In Progress		The Climate Action Plan Update and the General Plan update are currently underway and include consideration of the TVHMP.	O
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L-6—Develop/update Continuity of Operations (COO) and Continuity of Government (COG) Plans to support organizational resiliency in the event of a disaster.

Yes	In Progress		The City is in the process of developing the Continuity of Operations Plan. A kickoff meeting was held in September 2020 and core team members and Department responsibilities were identified, but progress on the plan was put on hold during the Covid-19 pandemic. Plan completion is expected in early Summer 2022.	O
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L-7—Develop a Post Disaster Recovery Plan that addresses all potential hazards and supports the efficient, timely and effective recovery of the community and public services and facilities. Ensure that Post Disaster Recovery Plan complies with U.S. Army Corps of Engineers, NRCS, FEMA, and state and local regulatory requirements to repair damage and receive public assistance in a timely manner.

Yes	In Progress	1	The City of Livermore Emergency Operations Plan updated in January of 2018 includes a Post-Disaster Recovery Operations Section. The plan is also in process of a two-year update.	O
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L-8—Consider hazard mitigation when designing the new construction, rehabilitation, retrofitting and/or replacement of projects identified in the CIP, particularly critical facilities.

Yes	Ongoing	1	Hazard mitigation was considered when designing 2017 storm repair projects and annual Stream Maintenance Projects.	O
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L-9—Update and maintain GIS mapping to include information for all mapped hazards that may affect properties in the community.

Yes	Ongoing	1		O
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L-10—Support the area-wide initiatives identified in Volume 1 of the hazard mitigation plan.

Yes	Ongoing	1		O
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L-11—Continue and expand public information and education activities for residents and businesses regarding hazard mitigation, emergency preparation, emergency response, and real estate disclosures.

Yes	Ongoing	1	The City completed the Public Information Plan and is working to enhance the Community Disaster Preparedness Education Plan, as well as expand CERT and community education and training opportunities. Staff handed out emergency preparedness materials at multiple Farmers Market events, made two public disaster preparedness presentations at the library, and created public education campaign materials for website, social media, and downtown kiosks on disaster preparedness.	O
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L-12—Develop evacuation plan that addresses all members of the community including special needs populations including, but not limited to, seniors, low-income households, disabled, and non-English speaking households.

Yes	In Progress		The Police Department and LPFD are currently developing an evacuation plan. The plan is estimated to be completed by Spring 2021.	O
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L-13—Provide staff training as needed to support plan implementation, plan maintenance and reporting requirements. Coordinate training with plan partners.

Yes	Ongoing		During the week of October 20-24, 2019, 18 staff attended the California Specialized Training Institute four-day intensive emergency management training. 95% of City employees have completed online training through FEMA Emergency Management Institute. All new City employees are required to complete FEMA online training within 90 days of employment start date. Public Works EOC/DOC staff will participate in tabletop exercises. COVID-19 and the SCU Lightning Complex Fires have provided on-going, hands-on experience in emergency management.	O
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L-14—Develop and implement a program to capture perishable data after significant events (e.g. high watermarks, preliminary damage estimates, and damage photos) to support future mitigation efforts including implementation and maintenance of the hazard mitigation plan.

Yes	Complete	1	The City of Livermore uses the application Veoci to collect information during and after an emergency.	✓
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L-15—Participate in programs such as Firewise, StormReady and the Community Rating System.				
Yes	Ongoing		The City participates in StormReady, Firewise, and the Community Rating System Programs.	O
L-16—Implement programs such as “Tree Watch” that proactively manage problem areas through use of selective removal of hazardous trees, tree replacement, trimming, etc.				
Yes	FY 20-21		The Public Works Maintenance Department will be completing a tree inventory in FY 20-21. Additional funds are needed for contract tree maintenance after deficiencies are identified as part of the tree inventory.	O
L-17—Amend existing landscape and other related ordinances to encourage appropriate planting near overhead power, cable, and phone lines.				
No				X
L-18—Continue Annual Weed Abatement program.				
Yes	Annual		The Public Works Maintenance Department annually provides weed abatement to areas where it is needed through staff and contractors.	O
L-19—Install emergency generators, or secure lease/rental agreements, in critical facilities, as identified in the CIP, including the Water Reclamation Plant, Fire Stations, and Airport facilities.				
Yes	In Progress	1	Installation of a permanent on-site emergency generator at the Water Reclamation Plant is in progress. The plan is to have it installed and ready for use by October 2020. Installation of a generator at the airport is planned for FY 20-21. The City is also planning to replace the backup generator at Fire Station # 6 in 2022.	O
L-20—Install backup battery systems for traffic signals as identified in the CIP.				
Yes	In Progress	1	All new traffic signals have battery back-ups installed. The City is in the process of installing batter backups to existing locations.	O
L-21—As part of the approved Civic Center Meeting Hall, include facilities for an Emergency Operations Center.				
Yes		1	An Emergency Operations Center was included in the new Civic Center Meeting Hall.	O
L-22—Develop a Floodplain Management Plan to describe how the city will maintain CRS Classification 9 and work towards Classification 8 and integrate flood damage reduction into public information, development and capital improvement processes.				
O		3	The City achieved a CRS Class 6 Rating in 2020 and continues to integrate flood damage considerations into its CIP and routine maintenance programs, but hasn't done so in a formal Floodplain Management Plan.	O
L-23—Develop a Climate Resiliency Plan as part of an update to the Climate Action Plan to identify weather trends and infrastructure subject to damage in increasingly severe weather events and identify mitigation projects.				
Yes	In Progress		A Climate Resiliency Plan will be included with General Plan and CAP updates. The General Plan update to start fall 2020 and CAP update will be completed by end of 2021.	O
L-24—Maintain annual inspection records and update GIS and cost tracking process to reflect accurate city facility data.				
Yes	In Progress		Public Works Maintenance/Asset Management implemented the NexGen CMMS to more efficiently track records and provide updated information to inform GIS edits. Implementation of the NexGen system should be complete by Fall 2021.	O
L-25—Develop a Debris Management Plan that is coordinated with other regional agencies, addresses all potential hazards and supports the efficient, timely and effective recovery of the community and public services and facilities.				
Yes	Complete		The City has completed the Debris Management Plan. It is currently pending FEMA and state approval.	✓
L-26—Complete an inundation study to develop flood data for 2-year to 100-year storms that is integrated with the updated Zone 7 flood study.				
Yes	FY 20-22	1	An inundation study will be completed as part of the Storm Drain Master Plan Update.	O
L-27—Incorporate grant eligible capital improvement projects into the hazard mitigation plan annually.				
No	Annual	1	Not formally incorporated.	O

L-28—Mitigate for landslide and flood damage on Collier Creek by adding to the CIP projects to design and construct a debris basin upstream of Collier Canyon Road and to grade and plant creek banks to restore capacity of Arroyo Las Positas through the Las Positas Golf Course.

Yes	FY 20-23		The Collier Creek and Arroyo Las Positas projects are currently in the planning and design phase.	O
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L-29—Continue and expand public education and outreach programs, including CERT, to provide consistent and accessible information regarding hazards and mitigation for residents and businesses.

Yes	Ongoing		The Livermore Pleasanton Fire Department has an active Community Emergency Response Team (CERT) program. The City completed the Public Information Plan and is working to enhance the Community Disaster Preparedness Education Plan, as well as expand CERT and community education and training opportunities. Staff handed out emergency preparedness materials at multiple Farmers Market events, made two public disaster preparedness presentations at the library, and created public education campaign materials for website, social media, and downtown kiosks on disaster preparedness.	O
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L-30—Develop a restoration plan to preserve and restore Cottonwood Creek on the City-owned property along Doolan Road. Plan would restore the drainage function of Cottonwood Creek and minimize loss to Doolan Road, public utilities and private property threatened by a eucalyptus tree grove at the top of the creek bank.

No	Not completed		Work is not currently being planned to restore this portion of Cottonwood Creek. The City will continue to evaluate the hazards and the feasibility of this project.	X
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L-31— Complete the update to the Emergency Operations Plan.

Yes	Complete		The City of Livermore Emergency Operations Plan update was completed in January 2018.	✓
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L-32— Develop a Threat & Hazard Identification & Risk Assessment (THIRA).

Yes	Complete		The City considers the TVHMP assessment a sufficient THIRA	✓
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L-33— Install storm drain back-up pumps and back-up power at road and railroad undercrossing (Isabel Ave., Murietta Blvd., P Street, L Street, Livermore Avenue).

Yes	Ongoing		Three stations (Livermore, P Street, and Murrieta) have back-up pumps, but not back-up power, installed. Isabel Station was turned over the CalTrans several years back and isn't the City's responsibility.	O
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L-34— Assess the earthquake vulnerability of existing road undercrossings (Isabel Ave., Murietta Blvd., P Street, Livermore Avenue, Greenville Rd.) and overcrossings (First St./railroad, Mines Road/railroad, Vasco Road/railroad) and existing culverts and bridges over creeks (Arroyo Mocho at Concannon Blvd., Holmes St., Arroyo Rd., Stanley Blvd.; Arroyo Las Positas at Vasco Rd., Central Ave., Heather Lane, Bluebell Ave.)

Yes	Ongoing		This project is on the CIP list but not budgeted for the next two years.	O
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Completion status legend:

✓ = Project Completed

O = Action ongoing

toward completion X =

No progress at this time

Changes That May Impact Implementation of the Plan:

Emergency management activities related to the Covid-19 could delay implementation of the plan. Revenue shortfalls could also limit available funding to complete some of the plan actions.

Recommendations for Changes or Enhancements: Based on the review of this report by the Hazard Mitigation Plan Steering Committee, the following recommendations will be noted for future updates or revisions to the plan:

- Complete an AAR of the COVID-19 response and complete the Mass Care and Shelter Plan, Volunteer/Donations Management Plan, Pandemic Plan, and EOC Management and Maintenance Plan with attention to the legal issues that arose in regard to authority and constitutionality during the COVID-19 pandemic.
- Develop an Appendix to the EOP that identifies active mitigation measures that are cross referenced with the LHMP, including specific measures such as the use of deployable flood management devices.
- Include data management, software modernization, and asset management as actions in future plans
- Remove THIRA as an action item in the TVHMP, and reconcile the top hazards in the TVHMP with those in Livermore's EOP, including man-made hazards such as cybersecurity and public health threats.
- Schedule an annual TVHMP steering committee meeting to review plan updates, formally add new actions to the plan, and discuss lessons learned by plan partners.
- Review adaptation measures in Livermore's CAP and add relevant hazard mitigation actions to the TVHMP

***Public review notice:** The contents of this report are considered to be public knowledge and have been prepared for total public disclosure. Copies of the report have been provided to the governing boards of all planning partners and to local media outlets. The report is posted on the Tri-Valley Hazard Mitigation Plan website. Any questions or comments regarding the contents of this report should be directed to:*

Herbert Cole, City of Livermore Emergency Manager, City Manager's Office 925-960-4040

Susan Frost, City of Livermore, Community Development, Planning Division 925-960-4450

Edward Reyes, City of Livermore, Community Development, Engineering Division 925-960-4500

Pamela Lung, City of Livermore, Floodplain Manager, Engineering Division 925-960-4500