



# City of Lomita

## Local Hazard Mitigation Plan

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# ES

## EXECUTIVE SUMMARY

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# ES.1 Plan Requirements and Objectives

The City of Lomita (City) Hazard Mitigation Plan is a living document that reflects ongoing hazard mitigation activities. Hazard mitigation involves strategies to reduce short- and long-term vulnerability to identified hazards. This document serves as the framework for the ongoing identification and implementation of hazard mitigation strategies developed in the City.



## Background Information

In 2000, the United States Congress determined that disasters and, more importantly, lack of preparedness for disasters, were significant causes of loss of life, human suffering, loss of income, and property loss and damage. Furthermore, because disasters often disrupt the normal functioning of governments and communities and adversely affect individuals and families with great severity, special measures designed to assist the efforts of the affected States in expediting the rendering of aid, assistance, and emergency services, and the reconstruction and rehabilitation of devastated areas, were necessary. As a result, Congress passed the Disaster Mitigation Act of 2000 (DMA 2000), or Public Law 106-390, to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act. This provides an opportunity for States, Tribal governments, and local jurisdictions to apply for assistance from the Federal government in carrying out their responsibilities to alleviate the suffering and damage which results from such disasters by:

- a. revising and broadening the scope of existing disaster relief programs;
- b. encouraging the development of comprehensive disaster preparedness and assistance plans, programs, capabilities, and organizations by the States and by local governments;
- c. achieving greater coordination and responsiveness of disaster preparedness and relief programs;
- d. encouraging individuals, States, and local governments to protect themselves by obtaining insurance coverage to supplement or replace governmental assistance;
- e. encouraging hazard mitigation measures to reduce losses from disasters, including development of land use and construction regulations; and
- f. providing Federal assistance programs for both public and private losses sustained in disasters.

DMA 2000 allows State, Tribal, and local jurisdictions to obtain Federal assistance through pre-disaster hazard mitigation planning. As part of the requirements for receiving Federal grants for improving a locality's resistance to disasters, each locality must determine their existing vulnerabilities and develop a plan to reduce or eliminate these vulnerabilities and must have this plan approved by the appropriate State and Federal officials. Upon approval of this plan, each locality is eligible to receive various types of disaster-related assistance through the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Assistance (HMA) Program. This



includes the Building Resilient Infrastructure and Communities (BRIC) program and Hazard Mitigation Grant Program (HMGP) which releases grant funds before and after a hazard event as well as the Flood Mitigation Assistance Grant (FMA) Program which appropriates funds for projects and planning that will reduce long-term risk of flood damage to structures insured under the National Flood Insurance Program (NFIP).

The BRIC program provides funds for hazard mitigation planning and the implementation of mitigation actions prior to a disaster event. These grants are funded and approved through FEMA on a competitive basis. The HMGP provides grants to implement long-term hazard mitigation measures after a major disaster declaration. These grants are funded by FEMA but are distributed by the State. In California, that agency is the Governor's Office of Emergency Services (Cal OES).

FEMA has developed guidance to assist communities in developing both the vulnerability assessments and plans to reduce or eliminate their vulnerabilities to disasters. These tools, coupled with techniques from the safety and security industries were used to develop the City's Hazard Mitigation Plan. Additional information regarding the HMGP and BRIC programs can be found in FEMA's "Hazard Mitigation Assistance Unified Guidance" document, located in FEMA's Hazard Mitigation Planning portal. Additional information including guidance and regulations can be found at the Cal OES's Local Hazard Mitigation Planning Program portal.

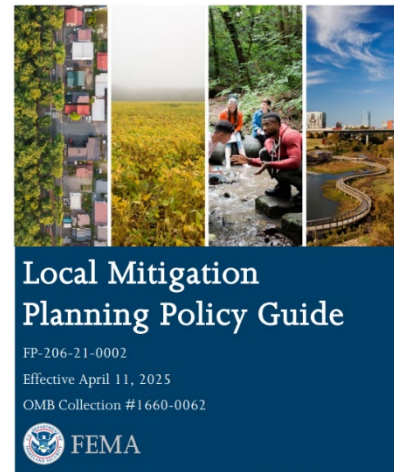
In order to be eligible for certain federal disaster assistance and mitigation funding, the City is required to have a Cal OES- and FEMA-approved Hazard Mitigation Plan in place. As a result, the City obtained grant funding to update this document to fulfill Cal OES and FEMA requirements and provide direction and guidance on implementing hazard mitigation actions on a hazard-level, probability, and cost-priority basis. The overall goal of the Hazard Mitigation Plan is to reduce the potential for damage to critical assets from natural and man-made hazards. In addition, the plan describes past and current hazard mitigation activities and philosophies and outlines future mitigation goals and strategies.

## FEMA Requirements

FEMA requires that the Hazard Mitigation Plan meet certain requirements. First, the planning process must be open and public and must allow the public to have an opportunity to comment during the drafting stage and prior to plan approval. Second, the process must allow other local jurisdictions to be involved in the planning process. Third, the Plan must incorporate, if appropriate, existing plans, studies, reports, and technical information.

FEMA expects that each Hazard Mitigation Plan has the following information:

1. Documentation of the ***planning process*** used to develop the plan
2. A ***risk assessment*** that provides a factual basis for upgrades and recommendations
3. A ***description of the natural hazards*** that can affect the jurisdiction
4. A ***description of the jurisdiction's vulnerability*** to these hazards
5. A ***description of land usage***, and an ***estimate of losses*** should a disaster occur
6. A ***mitigation strategy***
7. A plan ***maintenance process***
8. ***Documentation*** that the plan has been adopted by the jurisdiction's governing body
9. ***Review*** by the State Hazard Mitigation Officer



## ES.2 Mitigation Definition

Mitigation is an ongoing effort to prevent or lessen future emergency or disaster incidents, and the impacts they might have on people, property, and the environment. Examples of mitigation activities include the following:

- Legislation, laws, and regulations;
- Variances;
- Zoning and land use management;
- Engineering and building codes;
- Hazard mitigation plans & teams;
- Technical guidance & assistance;
- Financial assistance;
- Hazard Identification;
- Risk Analysis;
- Evaluation;
- Research; and
- Education

Mitigation decreases the demand for emergency response resources, reduces the principal causes of injuries and deaths, enables a quicker lifesaving response and economic recovery because the community infrastructure remains intact, and reduces the societal impacts of the emergency because it results in less disruption to the social environment. In essence, mitigation is the foundation of sustainable community development.

## ES.3 Planning Process Summary

Hazard mitigation planning is a dynamic process built on realistic assessments of past and present information that enables the City to anticipate future hazards and provide mitigation strategies to address possible impacts and identified needs. The overall approach to the Hazard Mitigation Plan included developing a baseline understanding of natural and man-made hazards, determining ways to reduce those risks, and prioritizing mitigation recommendations for implementation.

To complete these objectives, the City compiled a qualified team with various expertise to participate in a Hazard Mitigation Planning Committee (HMPC) to guide the development of the City's comprehensive Hazard Mitigation Plan. The City solicited participation in the HMPC by contacting both internal and external stakeholders. Details regarding which stakeholders were invited to participate in the HMPC, as well as which stakeholders did participate, can be found in Chapter 1: Planning Process.

Additionally, the HMPC actively engaged the public throughout the planning process, with a focus on reaching vulnerable populations. This included posting a survey on the City website,

distributing flyers at City facilities and events, setting up a booth to speak to residents directly at the Free Smoke Alarm Installation Event and National Night Out, and requesting feedback at a City Council meeting. These efforts aimed to encourage public input throughout the drafting process and ensure the draft Plan was accessible for review and comment. Chapter 1: Planning Process contains descriptions of the planning process, including information on the HMPC and public involvement.

## ES.4 Hazard Analysis

The City is vulnerable to a wide range of natural and man-made hazards that threaten life and property. To identify the hazards that the City and neighboring communities perceive as the largest threat, each member of the HMPC participated in the Hazard Identification Workshop during the first and second HMPC Meetings. The HMPC brainstormed potential hazards based on past incidents that have impacted the City and information incorporated from other studies. (Incorporated Plans and studies are described in Section 1.3 “Review and Incorporation of Existing Plans”). Each identified hazard was then qualitatively ranked based upon hazard probability/frequency, consequence/severity, and the City’s overall vulnerability using an interactive model. Section 3.2 Hazard Identification contains detailed information regarding the hazard ranking. Table ES.1 provides a summary of the hazard rankings.

**Table ES.1: City of Lomita Hazard Ranking Summary**

| HAZARD RANK                                                                                                     |  | SCORE |
|-----------------------------------------------------------------------------------------------------------------|--|-------|
|  EARTHQUAKE                  |  | 40    |
|  WINDSTORM                   |  | 36    |
|  WATER SHORTAGE              |  | 36    |
|  URBAN FIRE                  |  | 24    |
|  FLOOD                       |  | 24    |
|  HAZARDOUS MATERIALS RELEASE |  | 20    |
|  AIRCRAFT INCIDENT           |  | 16    |

Note: The HMPC did not identify any Low ranked hazards



## Asset Inventory and Loss Estimates

In addition to the hazard profiles, the Risk Assessment contains a detailed asset inventory that lists the City's assets, such as buildings, public facilities, and water facilities. This asset inventory was used in the vulnerability assessment to estimate potential losses for each hazard. The HMPC reviewed each hazard and assigned a percentage for potential damage. This also included loss of function values for lifeline and emergency service interruptions. Section 3.7 Loss Estimates includes a detailed breakdown of the vulnerability assessment calculations. Table ES.2, listed below, highlights the summary of loss estimates for each identified hazard.

**Table ES.2: Loss Estimate Summary**

| HAZARD                      | NAME         |
|-----------------------------|--------------|
| Earthquake                  | \$25,102,000 |
| Windstorm                   | \$12,652,000 |
| Urban Fire                  | \$11,664,000 |
| Aircraft Incident           | \$4,925,000  |
| Flood                       | \$3,780,000  |
| Hazardous Materials Release | \$1,717,000  |
| Water Shortage              | \$1,517,000  |

Note: Values are rounded to the nearest thousand.

## ES.5: Mitigation Strategies and Implementation Plan

### Plan Goals and Objectives

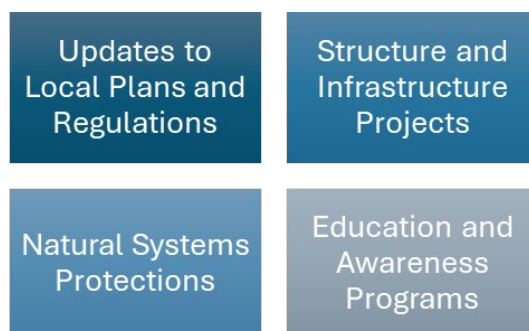
As part of the development process, Plan goals and objectives were revalidated to provide a framework for mitigating hazards and proposing potential mitigation actions. The goals are consistent with the California State Hazard Mitigation Plan and the Los Angeles County Hazard Mitigation Plan and were developed by the HMPC. The City's overall Plan goals are to:

1. Protect Life and Property
2. Enhance Public Awareness
3. Protect the Environment
4. Encourage Strategic Partnerships and Implementation
5. Improve Emergency Capabilities

In addition to the overall Plan goals, individual objectives were developed that more specifically address mitigation strategies. Section 4.1 Mitigation Goals and Objectives contains the full list of the Plan goals and objectives.

### Mitigation Strategies

Mitigation strategies are administrative and/or engineering project recommendations to reduce the vulnerability to the identified hazards. The HMPC identified specific mitigation actions to reduce the impact or likelihood of the hazards. The specific objectives served as a starting point for developing the mitigation actions, and additional actions were taken from City's General Plan. Each of the mitigation recommendations fell into one or more of the following categories:



### Implementation Plan

Following the identification of mitigation actions, a simplified Benefit-Cost Review was applied in order to prioritize the mitigation actions for implementation. The priority for implementing

mitigation actions depended upon the overall cost effectiveness of the action, when taking into account monetary and non-monetary costs and benefits associated with each action. Additionally, the following questions were considered when developing the Benefit-Cost Review:

- How many people will benefit from this action?
- How large of an area is impacted?
- How critical are the facilities that benefit from the action?
- Environmentally, does it make sense to do this project for the overall community?

The Benefit-Cost Review yielded a relative priority ranking (High, Medium, or Low) for each mitigation action. Each ranking was defined as follows.

- High: Benefits are perceived to exceed costs without further study or evaluations; or the action is critical.
- Medium: Benefits are perceived to exceed costs but may require further study or evaluation prior to implementation.
- Low: Benefits and costs require evaluation prior to implementation.

Mitigation actions identified as high priority are typically implemented before lower ranked actions. Results from the Benefit-Cost Review are located in Chapter 4.3 Prioritization of Mitigation Recommendations. The HMPC considered responsible departments, funding resources, and estimated implementation timeframe when developing the implementation plan.

Chapter 4 Mitigation Strategies contains additional information regarding the mitigation strategies and implementation plan. Table ES.3 on the following pages provides a summary of each mitigation action, including the hazard(s) mitigated, responsible agency/department, and relative priority rank taken from the Benefit-Cost Review.

Table ES.3: Mitigation Action Summary

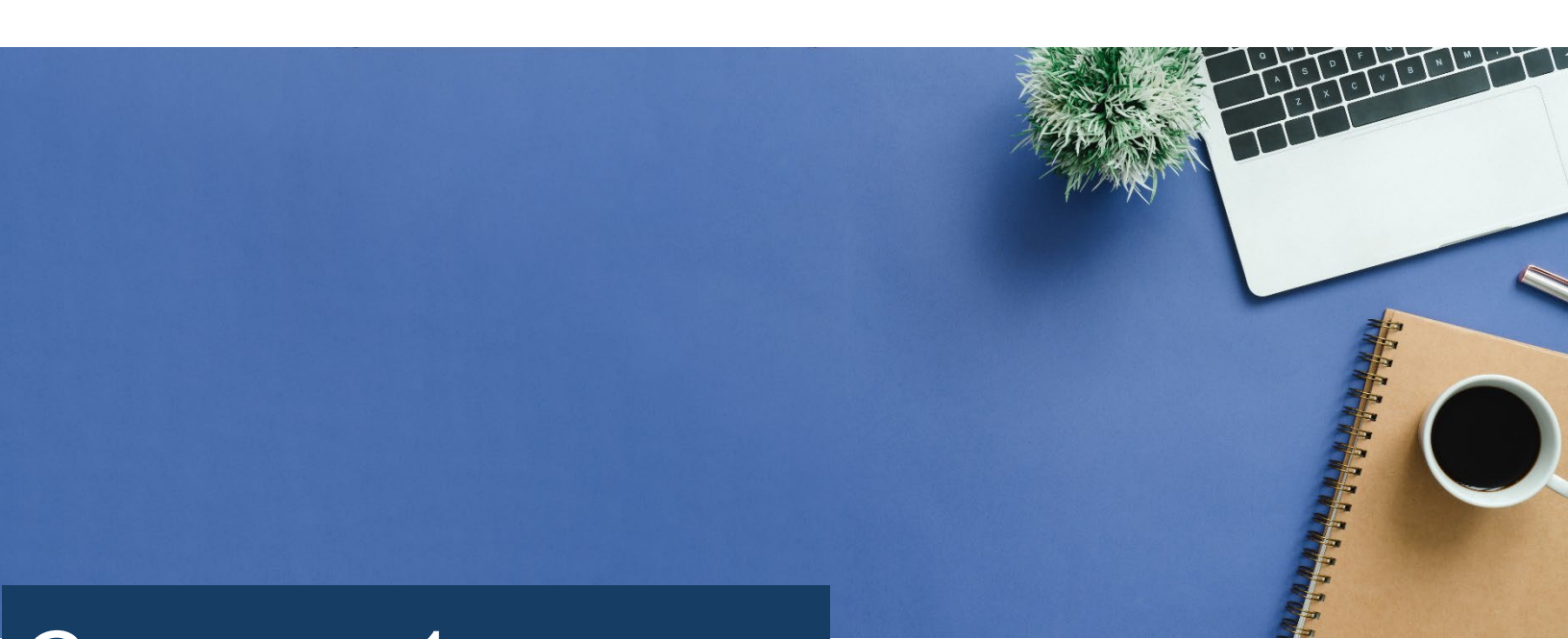
| Action ID   | Mitigation Action                                                                                                                                                                                                                                     | Hazards Mitigated | Responsible Agency/Dept.            | Priority |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------|----------|
| 2025.HMP.01 | Implement seismic studies to determine vulnerable locations for earth movement throughout city facilities and implement structural improvements accordingly.                                                                                          | Earthquake        | Public Works/Facilities             | High     |
| 2025.HMP.02 | Evaluate the EOC (Commissioner's Room) for functionality during an emergency and obtain the necessary equipment.                                                                                                                                      | Earthquake        | City Manager's Office               | Medium   |
| 2025.HMP.03 | Reach out to the State to obtain a list of Board and Care facilities within the City of Lomita to identify potential vulnerable populations for emergency scenarios.                                                                                  | Multi-Hazard      | City Manager's Office               | High     |
| 2025.HMP.04 | Enhance outreach efforts to encourage participation in local and regional earthquake preparedness measures.                                                                                                                                           | Earthquake        | City Manager's Office               | High     |
| 2025.HMP.05 | Work with SCE to find funding opportunities to upgrade/bury utility lines to mitigate damage from wind scenarios.                                                                                                                                     | Windstorm         | Public Works                        | High     |
| 2025.HMP.06 | Explore and develop a program to assist in tree trimming services for private properties which pose a hazard to community safety. Develop this program with an emphasis of providing relief to vulnerable populations (i.e. seniors/mobility issues). | Windstorm         | City Manager's Office/ Public Works | Medium   |
| 2025.HMP.07 | Develop an outreach program to encourage citizens to evaluate hazards to windstorms independently and take steps to mitigate hazards (i.e. windstorm checklist through local newsletter).                                                             | Windstorm         | City Manager's Office               | Medium   |
| 2025.HMP.08 | Upgrade water infrastructure to improve water flow throughout the City and in between water agencies to improve water reliability.                                                                                                                    | Water Shortage    | Public Works                        | Medium   |

| <b>Action ID</b>   | <b>Mitigation Action</b>                                                                                                                                                     | <b>Hazards Mitigated</b> | <b>Responsible Agency/Dept.</b> | <b>Priority</b> |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------|-----------------|
| <b>2025.HMP.09</b> | Consider how data analytics can be used to encourage the population to reduce water use and improve water resilience.                                                        | Water Shortage           | Public Works/<br>Cal Water      | Medium          |
| <b>2025.HMP.10</b> | Explore opportunities for utilizing reclaimed/recycled water for irrigation throughout the city.                                                                             | Water Shortage           | Public Works                    | Low             |
| <b>2025.HMP.11</b> | Install fire suppression and fire detection equipment within city facilities.                                                                                                | Urban Fire               | Public Works/<br>Facilities     | Medium          |
| <b>2025.HMP.12</b> | Contact Red Cross to implement Sounding the Alarm events throughout the city.                                                                                                | Urban Fire               | City Manager's<br>Office        | High            |
| <b>2025.HMP.13</b> | Develop an outreach program specifically designed to educate the public about the resources available following an urban fire scenario Renter's insurance/ Red Cross/ etc.). | Urban Fire               | City Manager's<br>Office        | High            |
| <b>2025.HMP.14</b> | Improve public outreach to notify public of resources (Sandbags/Dial a Ride/Meals on Wheels/CERT) available at the city for high precipitation events.                       | Flood                    | City Manager's<br>Office        | High            |
| <b>2025.HMP.15</b> | Work with the Public Safety and Traffic Commission to include considerations for hazardous materials release in new agenda items regarding traffic/ safety improvements.     | HazMat<br>Release        | Public Works                    | Medium          |
| <b>2025.HMP.16</b> | Provide public safety information that covers Shelter in Place and Dig Alert (811-Underground Public Utility Location).                                                      | HazMat<br>Release        | City Manager's<br>Office        | Medium          |
| <b>2025.HMP.17</b> | Explore partnerships and collaboration with the local airport to encourage less fly-overs and improved hazard communication.                                                 | Aircraft Incident        | City Manager's<br>Office        | Medium          |

## **ES.6: Monitoring, Evaluating, and Updating the Plan**

The Hazard Mitigation Plan is a living document that reflects ongoing hazard mitigation activities and requires monitoring, evaluating, and updating to ensure the mitigation actions are implemented. To facilitate the Hazard Mitigation Planning process and adhere to regulatory requirements, the Plan will be reviewed annually, and any major revisions will be incorporated into the five-year update. In addition, public involvement will be requested when applicable. Chapter 5: Plan Maintenance outlines the update requirements and planning mechanisms the City has in place for ongoing hazard mitigation.





# CHAPTER 1

## PLANNING PROCESS

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# 1.1 Narrative Description of the Planning Process

Hazard mitigation planning is a dynamic process built on realistic assessments of past and present information that engages the City of Lomita (City) to anticipate future hazards and provide meaningful strategies to address possible impacts and identified needs. The hazard mitigation planning process involves the following tasks:



The overall approach to updating the Hazard Mitigation Plan included building off the baseline understanding of the natural hazards as defined in the 2018 Hazard Mitigation Plan, determining ways to focus solely on those risks which impact the City, continuing to reduce those risks, and prioritizing those recommendations for implementation. The following task descriptions provide a detailed narrative of the overall project progression.

## Organize Resources

*Identify Stakeholders and Compile Hazard Mitigation Planning Committee*

**§201.6(b):** In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:

(1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;

(2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and non-profit interests to be involved in the planning process; and

(3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

**§201.6(c)(1):** [The plan shall document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

Lina Hernandez, Senior Management Analyst, invited and coordinated participation for a Hazard Mitigation Planning Committee from the appropriate law enforcement, emergency response, academia, health organizations, local businesses, City personnel, local government representatives, and vulnerable populations. The Hazard Mitigation Planning Committee was responsible for providing essential insight into past hazard events, current hazard vulnerability (including specific locations), critical assets, and possible mitigation projects. The following groups were invited via email to participate in the plan development:

**Table 1.1 Stakeholders Invited to Participate in the Plan Update**

| <b>Local/Regional Agencies Involved in Hazard Mitigation Activities</b>                                                                                                                                                                                                                                                       | <b>Agencies That Have Authority to Regulate Development</b>                                                                                                                                      | <b>Representatives of Businesses/ Academia/Other Private Organizations</b>                                                          | <b>Neighboring Communities</b>                                                                                   | <b>Representatives of Volunteer/Non-Profit Organizations</b>                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>-City of Lomita Public Works</li> <li>-City of Lomita City Manager's Office</li> <li>-Area G Disaster Management</li> <li>-Los Angeles County Fire Department</li> <li>-Los Angeles County Sheriff's Department</li> <li>-Los Angeles County Office of Emergency Management</li> </ul> | <ul style="list-style-type: none"> <li>-City of Lomita Community Development</li> <li>-City of Lomita Planning Division</li> <li>-City of Lomita Public Safety and Traffic Commission</li> </ul> | <ul style="list-style-type: none"> <li>-City of Lomita Chamber of Commerce</li> <li>-Los Angeles Unified School District</li> </ul> | <ul style="list-style-type: none"> <li>-City of Hermosa Beach</li> <li>-City of Rolling Hills Estates</li> </ul> | <ul style="list-style-type: none"> <li>-Lomita Manor, managed by HumanGood</li> <li>-American Red Cross</li> <li>-Lomita CERT</li> </ul> |

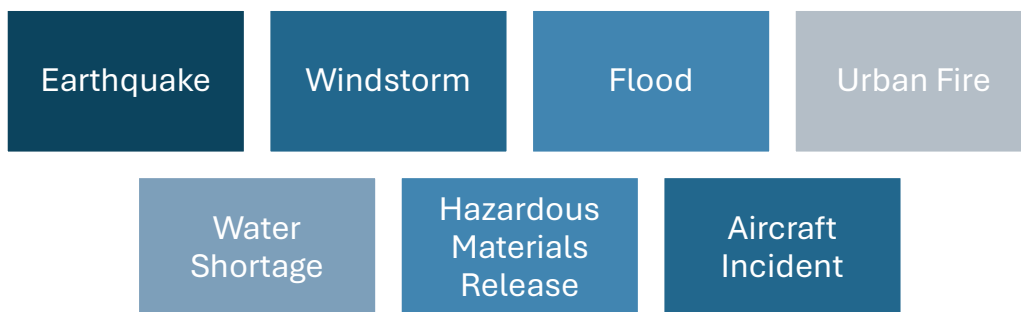
## *Public Process*

The Disaster Mitigation Act of 2000 requires an “Open and Public Process” for developing the Hazard Mitigation Plan. This process requires, at a minimum, that the public be allowed to comment on the Hazard Mitigation Plan during the drafting phase and prior to adoption. To meet this requirement, the City published a public survey to allow for the public comment during the drafting stage of the Hazard Mitigation Plan prior to submittal of the Hazard Mitigation Plan for FEMA review. The public survey was advertised on social media and on the City’s website. Documentation of public involvement is provided in Appendix D.

## **Risk Assessment**

### *Identify Hazards*

This task was designed to identify all the natural and man-made hazards that *might* affect the City and then narrow the list to the hazards that are most likely to occur. The hazards included natural and human-caused events, with an emphasis on the effect of disasters on the City’s critical facilities. To compile the list, the Project Team built upon the list of hazards identified in the 2018 Local Hazard Mitigation Plan and those identified for Los Angeles County through FEMA’s National Risk Index, determined which hazards were specific to the City, and then continued to research numerous sources to determine any additional hazards. In addition, the Hazard Mitigation Planning Committee reviewed a list of hazards that have affected the City in the past with specific information regarding frequency, magnitude, and associated consequences. A Hazard Identification exercise was conducted during the first and second Hazard Mitigation Planning Committee Meeting to identify and evaluate each selected hazard. The following hazards were included in the Hazard Mitigation Plan:



This list is not all-inclusive of the hazards discussed during the Hazard Identification exercise. Hazards not thought to pose significant risk to the City were not included. For example, FEMA’s

National Risk Index indicates that wildfire might be a high risk for cities in Los Angeles County. Given that the City's relative location in Los Angeles County, coupled with the city being mostly built out with no significant open areas, wildfire was not deemed a credible hazard for this Plan. To address this hazard, the team identified Urban Fire as being a higher hazard specific to the City. In addition, some items were captured as sub-items of the hazards listed above. For example, climate change is discussed with hazards where the impact of changes in weather patterns could act as a catalyst for those scenarios.

### *Profile Hazard Events*

The hazard profiles consist of either a map indicating the area impacted by each hazard or an important piece of data regarding the characteristics of hazard events within the City and surrounding area. To update the detailed hazard profiles, the Project Team researched and reviewed relevant open-source natural hazard studies and mapping projects. In addition, the City supplied any hazard studies that have been developed specifically for the City. This task determined the hazard magnitude, frequency, and location characteristics (e.g., predicted ground acceleration values, fault locations, flood plains, etc.) that were used as the design-basis for the hazard rankings and loss estimates.

### *Asset Inventory*

The purpose of this task was to determine the quantity of City facilities and assets that lie in the different hazard areas and what proportion of the City this represents. The asset inventory was compiled with data provided by the City. The completed asset inventory enables the Planning Team to estimate losses resulting from hazard events and to determine where resources should be allocated to address mitigation issues.

### *Loss Estimates*

The Project Team developed loss assessment tables for each specific hazard that identify potential damage within the City, critical infrastructure, and buildings. This task was critical in determining which assets are subject to the greatest potential damage and which hazard event is likely to produce the greatest potential losses. The conclusion of this task precipitated a comprehensive loss estimate for each identified hazard for each specific asset in terms of damage, economic loss, and the associated consequences.

### *Vulnerable Populations*

To improve the City's insight into how hazards affect vulnerable populations and ensure compliance with FEMA's updated guidelines, the Hazard Mitigation Planning Committee

convened to explore the impacts of various hazard scenarios on vulnerable populations. The discussion focused on the City's ability to provide resources and information to better serve vulnerable populations.

## **Mitigation Strategy Development**

### *Development of Mitigation Goals and Objectives*

The Hazard Mitigation Planning Committee discussed the mitigation features and resources that the City currently has in place. These mitigation features provided a framework to determine where practical improvements could be made and where sufficient improvements would be prohibitive due to cost, schedule, or impracticality of implementation.

For each of the hazard events, mitigation goals and objectives were developed with the intention of reducing or eliminating the potential hazard impacts. The mitigation goals and objectives were developed at a Hazard Mitigation Planning Committee Meeting to provide the basis for determining the associated mitigation projects.

### *Identify and Prioritize Mitigation Actions*

Mitigation strategies are administrative and/or engineering project recommendations to reduce the vulnerability to the identified hazards. It was imperative to have City Planners and community developers involved in this phase of the Plan to develop strategies and projects that will mitigate the hazards cost-effectively, as well as ensure consistency with the City's long-term mitigation goals and capital improvements. At a Hazard Mitigation Planning Committee Meeting, a team-based approach was used to brainstorm mitigation projects based on the identified hazards and associated loss estimates. The evaluation and prioritization of the mitigation actions produced a list of recommended mitigation actions to be incorporated into the Hazard Mitigation Plan. A separate Hazard Mitigation Planning Committee meeting was held to conduct a Benefit-Cost Analysis for each proposed mitigation action to determine the relative priority level of the recommendation.

## **Implementation and Monitoring**

### *Preparation of Implementation Strategy*

The Project Team developed an action plan to detail how the mitigation recommendations will be prioritized, implemented, and administered by the City. During the Hazard Mitigation Plan creation process, the Project Team coordinated with the Hazard Mitigation Planning Committee to determine the mitigation project implementation strategy (including identifying responsible departments, funding resources, and estimated implementation timeframe).

## 1.2 Hazard Mitigation Planning Committee and Public Involvement

While the City and Risk Management Professionals, a consultant hired by the city to assist with the planning effort, had lead responsibility for the update of the City's Hazard Mitigation Plan, neighboring communities, agencies, businesses, and other interested parties were invited to participate on the Hazard Mitigation Planning Committee to review the Hazard Mitigation Plan during each phase of the document development. In order to compile a list of Hazard Mitigation Planning Committee participants, the Project Team assessed community support through active community leaders, built a planning Team, and engaged the public participants during the planning process. Each member of the Hazard Mitigation Planning Committee had the opportunity to participate in all aspects of the planning process.

### Hazard Mitigation Planning Committee Participant Solicitation

The City solicited participation in the Hazard Mitigation Plan Committee for the Hazard Mitigation Plan by contacting both internal and external stakeholders. Internal stakeholders included members of the various City departments. External stakeholders were comprised of representatives from local agencies and neighboring communities, including the Los Angeles County Fire Department, Los Angeles County Sheriff's Department, Los Angeles County Office of Emergency Management, representatives of vulnerable populations, and the public.

### Hazard Mitigation Planning Committee Participants

The City brought together personnel from the City Manager's Office, Public Works, and Community Development to ensure the Hazard Mitigation Planning Committee included a variety of departments and provided a mechanism for receiving input from each participant. Additionally,

**§201.6(b):** In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process **shall** include:

- (1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval.
- (2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and non-profit interests to be involved in the planning process; and

**§201.6(c)(1):** The plan **shall** document the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.



the City compiled historical hazard data, provided relevant planning documents for incorporation into the Hazard Mitigation Plan, and coordinated participation with the public. Each draft chapter was reviewed by the Hazard Mitigation Planning Committee and specific comments and input were incorporated into the plan. The multidisciplinary Hazard Mitigation Planning Committee enabled the City to work together and incorporate each individual's expertise to provide a comprehensive Hazard Mitigation Plan. The Hazard Mitigation Plan was developed with assistance and advice from participants from the City and several neighboring agencies. Table 1.2 provides a list of the Hazard Mitigation Planning Committee participants.

**Table 1.2 Hazard Mitigation Planning Committee Participants**

| <b>NAME</b>         | <b>AFFILIATION</b>                             | <b>TITLE</b>                           |
|---------------------|------------------------------------------------|----------------------------------------|
| Lina Hernandez      | City of Lomita- City Manager's Department      | Senior Management Analyst              |
| Juan Ibarra         | City of Lomita – City Manager's Department     | Administrative Analyst                 |
| Janpier Adamzadeh   | City of Lomita- City Manager's Department      | Management Assistant                   |
| Montserrat Gastelum | City of Lomita- City Manager's Department      | Administrative Analyst                 |
| John Campos         | City of Lomita- City Manager's Department      | Parking Enforcement Supervisor         |
| Laura MacMorran     | City of Lomita- Community Development          | Associate Planner                      |
| Erika Barbero       | City of Lomita- Community Development          | Assistant Planner                      |
| Frederic Aboujaoude | City of Lomita- Public Works                   | Principal Engineer                     |
| Carla Dillon        | City of Lomita- Public Works                   | Director of Public Works               |
| Lesley Uribe        | Lomita Manor                                   | Administrator                          |
| Deputy Okamoto      | Los Angeles Sheriff's Department               | Deputy                                 |
| Deputy Kellog       | Los Angeles Sheriff's Department               | Deputy                                 |
| Sergeant McCoy      | Los Angeles Sheriff's Department               | Sergeant                               |
| Irene Kurata        | Public Safety and Traffic Commission/ Resident | Commissioner/ Resident                 |
| John Ballard        | Public Safety and Traffic Commission/ Resident | Commissioner/ Resident                 |
| Brandy Villanueva   | Area G Disaster Management Area                | Area G Disaster Management Coordinator |
| Ryan Bray           | Risk Management Professionals                  | Senior Technical Consultant            |
| Shireen Kulkarni    | Risk Management Professionals                  | Technical Consultant                   |

The Hazard Mitigation Planning Committee met seven times over the course of the project to discuss project progress and obtain valuable input and information for documenting the Hazard Mitigation Plan. The meetings are detailed over the subsequent pages. Appendix D – Public Participation contains copies of the presentations used at each meeting and specific meeting handouts.

## **Hazard Mitigation Planning Committee Meeting Descriptions**

### **Hazard Mitigation Planning Committee Meeting #1- March 4, 2024: Project Initiation, Hazard Identification, and Information Collection**

During the Project Initiation, Hazard Identification, and Information Collection Meeting, Risk Management Professionals presented an overview presentation that detailed the objectives and scope of the project. After a review of the project schedule and key tasks, the Hazard Mitigation Planning Committee participants' areas of expertise, resultant member responsibilities, and the community meeting process was discussed. The Hazard Mitigation Planning Committee Meeting also served as a mechanism to determine the hazards to profile in detail. To effectively characterize the City's risk and vulnerability, Risk Management Professionals facilitated a discussion of the historical hazards with the Hazard Mitigation Planning Committee members during this meeting.

### **Hazard Mitigation Planning Committee Meeting #2- April 15, 2024: Hazard Risk Ranking**

The Hazard Mitigation Planning Committee determined the initial hazard profile ranking through a facilitated exercise using an automated interactive spreadsheet that asked specific questions on potential hazards and then assigned a relative value to each potential hazard, accordingly, including numerical rankings (1-5) of the following criteria:

- **Consequence/Severity** – How widespread is the impact area?
- **Secondary Effects** – Could the event trigger another event and separate response?
- **Probability/Frequency** – Historical view of how often this type of event occurs locally and projected recurrence intervals.
- **Warning/Onset** – Advance warning of the event, or none.



- **Duration** – Length of elapsed time where response resources are active.
- **Recovery** – Length of time until lives and property return to normal

Chapter 3: Risk Assessment outlines the methodology used for hazard rankings. Additionally, all Hazard Mitigation Planning Committee participants were requested to provide existing plans and technical studies, GIS data, and identify existing mitigation features as part of a detailed information request.

### **Hazard Mitigation Planning Committee Meeting #3- June 3, 2024: Mitigation Goals and Objectives**

The hazard risk ranking from Hazard Mitigation Planning Committee Meetings #1 and #2 was reviewed, updated, and validated with the Hazard Mitigation Planning Committee with a review of the hazard profiles. Additionally, the Plan's mitigation goals and objectives were updated with the intention of reducing or eliminating the potential hazard impacts, which also provided the basis for determining the associated mitigation projects. The Hazard Mitigation Planning Committee reviewed the goals and objectives from the City's 2018 Local Hazard Mitigation Plan, the 2020 Los Angeles County Hazard Mitigation Plan, and the 2023 California State Hazard Mitigation Plan as a baseline for determining the City's current mitigation goals and objectives.

### **Hazard Mitigation Planning Committee Meeting #4- July 10, 2024: Vulnerability Assessment/Critical Facilities Loss Estimate**

To enhance the City's understanding of how hazards impact vulnerable populations and comply with FEMA's new requirements, a Hazard Mitigation Planning Committee meeting was held to examine the effects of hazard scenarios on these populations. As detailed in Section 2.4 (Demographics), the City identified several groups likely to experience heightened impacts during hazard events, including the elderly, children, individuals with cognitive or physical disabilities, economically disadvantaged residents, and those with limited English proficiency (LEP).

During the meeting, a productive discussion took place regarding the City's capacity to provide resources and information to better support these populations. This resulted in a deeper analysis of the hazard understanding in Chapter 3 and the mitigation actions in Chapter 4 of the plan. Moreover, as the City gained greater clarity on FEMA's expectations for mitigation planning, Chapter 5 was updated to reflect the City's commitment to addressing the needs of vulnerable populations in future mitigation efforts.

The asset inventory was developed to determine the quantity of buildings, facilities, and other assets in the City that lie in the different hazard areas and what proportion of the City this

represents. The asset inventory included locations and specifications for city well sites, civic buildings, and parks. The asset inventory was then used to develop loss estimates for all hazard scenarios. The hazard probabilities and recurrence intervals were applied to the City assets to determine which assets were subject to the greatest potential damages and which hazard events were likely to produce the greatest potential losses.

### **Hazard Mitigation Planning Committee Meeting #5-August 8, 2024: Mitigation Action Identification/Benefit Cost Review**

The purpose of this meeting was to identify potential mitigation actions and projects that will reduce the impact of identified hazards. First, the mitigation goals and objectives from Hazard Mitigation Planning Committee Meeting #3 were reviewed and validated. Then, during the meeting, the Hazard Mitigation Planning Committee participants brainstormed possible projects and actions to mitigate the effects of the identified hazards.

As the mitigation projects were identified, the Hazard Mitigation Planning Committee discussed the mitigation action implementation plan according to the following characteristics:

- Mitigation Action Category – Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, and Structural Projects
- Corresponding Goals and Objectives
- Responsible Department – Building and Safety, Engineering, Administration, Community Development, Public Works, etc.
- Resources – General Fund, Grant Programs, Staff Time, Capital Improvements, etc.
- Implementation Timeframe – Ongoing, Short-Term (within two years), Medium-term (between three and ten years), and Long-Term (greater than ten years)
- Whether or not the projects protect new or future buildings

The Hazard Mitigation Planning Committee then performed a high-level Benefit-Cost Review on each of the identified mitigation actions. The review consisted of identifying all benefits and costs associated with implementing each mitigation action. Typical benefits include:

- Avoided physical damages (e.g., to buildings, infrastructure, and equipment)
- Avoided loss of function costs (e.g., loss of utilities and lifelines)
- Avoided casualties

- Avoided emergency management costs (e.g., emergency operations center costs, evacuation/rescue costs, and other management costs)

Once the benefits and costs were estimated, a relative priority was assigned for each action based upon the evaluation. More detailed information can be found in Section 4.4 “Prioritization of Mitigation Recommendations”.

## Public Meetings and Outreach

The City actively solicited public involvement through the City website throughout the Plan update by inviting the public to participate in an online survey, which was available throughout Summer 2024 until Fall 2025. The survey assessed the community’s level of concern with various hazards and the steps each respondent had taken to prepare for a disaster.



Additionally, representatives from the Hazard Mitigation Planning Committee teamed up with The City of Lomita and American Red Cross at the "Sound the Alarm Event" on May 4, 2024, which assisted residents with installing smoke detectors in residents’ homes. This event was valuable in gaining public input regarding hazards that affect the community.

At a separate event on August 6, 2024, representatives from the Hazard Mitigation Planning Committee set up a booth with the City at the National Night Out event to gather public feedback regarding the hazards that were identified and potential mitigation efforts. Members of the public were also able to provide direct input for Hazard Mitigation Plan development and attend a City Council Meeting to review the Hazard Mitigation Plan during the drafting stage and provide comments. The Draft Hazard Mitigation Plan was provided on the City website two weeks prior to the City Council meeting in September 2025 to allow the public to review the document before providing comments. For the City Council meeting, a presentation was prepared to provide an overview of the planning process and the results of the analyses for the public. Additional documentation regarding public involvement and additional information on the City Council Meeting, including the attendance log and presentation, can be found in Appendix D.



## 1.3 Review and Incorporation of Existing Plans

While developing the City's Hazard Mitigation Plan, the Project Team reviewed existing plans (detailed below) and incorporated relevant information into the planning efforts.

### **City of Lomita Local Hazard Mitigation Plan (2018)**

The 2018 Local Hazard Mitigation Plan was crucial in comparing the previous mitigation ideas and attitudes to the City's current needs and concerns. The project team referred to this plan constantly throughout the updating process. The Hazard Mitigation Plan provides insight into hazard ranking, hazard history, previously proposed mitigation projects, etc.

**§201.6(b):** In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process **shall** include:

(3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

### **City of Lomita General Plan (2024).**

The City of Lomita Draft General Plan 2024, including the updates to the Housing Element and Environmental Impact Report, contains guidelines and policies that serve as the City's vision for future planning and development. Mitigation projects defined in the Hazard Mitigation Plan will be required to align with the objectives outlined in the Safety Element of the General Plan. Proposed mitigation actions are found in Chapter 4 of this document.

### **City of Lomita Climate Action Plan (2018)**

The City's Climate Action Plan provides guidance to promote effective and integrated action to prepare for climate change. The information from the Assessment was used to develop those hazard profiles which may be the result of climate change.

### **City of Lomita Urban Water Management Plan (2020)**

The City of Lomita 2020 Urban Water Management Plan is updated every five years to monitor water supply issues and mitigate drought situations. As part of Urban Water Management Plan updates, the City will review the drought hazard profile in the HMP and incorporate the drought mitigation actions identified in the plan.

### **California State Hazard Mitigation Plan (2023)**

The State Hazard Mitigation Plan was reviewed to ensure consistency between the State and City Plan, with respect to identified hazards and vulnerability, goals and objectives, and mitigation



actions. The State goals served as the basis for developing the goals at the City level. City goals and objectives are outlined in Chapter 4.

### **County of Los Angeles Hazard Mitigation Plan (2021)**

Los Angeles County's All-Hazard Mitigation Plan was reviewed to ensure consistency between the County and City Plan. The County Plan, updated in 2021, outlines the County's approach to hazard mitigation, focusing on natural hazards, human-caused events, and technological emergencies.

### **California Adaptation Planning Guide (2020)**

FEMA, CalOES, and the California Natural Resources Agency developed the California Adaptation Planning Guide to assist municipalities in recognizing local climate change and provide guidance for addressing potential vulnerabilities. The information was used to develop potential hazards and to provide background information that allowed the Hazard Mitigation Planning Committee to make educated decisions regarding mitigation actions designed to alleviate the effects of climate change.

### **FEMA's Flood Insurance Rate Map (FIRM)**

The FIRM, or FEMA's official map of the community delineating Special Flood Hazard Areas (SFHAs), Base Flood Elevations (BFEs) and flood risk zones was reviewed to determine flood hazard areas with the City boundary. Portions of the map are included in the Flood Hazard Profile in Chapter 3 which was used to support the City's understanding of flood-related risks within the City.



# CHAPTER 2

## PLANNING AREA PROFILE

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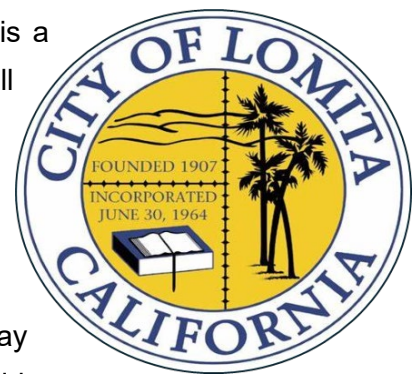
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## 2.1 Region Description

The City of Lomita (City) is a municipality characterized by a combination of residential, mixed-use, and commercial developments. The City is located in the southwestern portion of Los Angeles County, California and is situated 26 miles south of downtown Los Angeles. It is bordered by the City of Torrance to the north and west, the Los Angeles Harbor Region to the east, and the City of Rolling Hills Estates to the southwest. Southeast of Lomita is the City of Rancho Palos Verdes and unincorporated areas of Los Angeles County. Additionally, the City borders Torrance Municipal Airport and is near Los Angeles International Airport and Long Beach Municipal Airport. Additionally, the City is near the ports of Los Angeles and Long Beach and is about 6 miles east of the Pacific Ocean. Lomita has a total area of 1.97 square miles.

The City's climate is consistent with Southern California's "Mediterranean" climate: a semi-arid environment with mild winters, warm summers, and moderate rainfall. The City's temperatures in the summer tend to be in the 80s, while the winter temperatures tend to be in the 50s. With an average high temperature of 78.6 degrees Fahrenheit, August is the warmest month of the year, while January has an average minimum temperature of 44.3 degrees Fahrenheit. During the summer, temperature differences between day and night can reach 20 degrees Fahrenheit, and during the winter, they often range between 20 and 22 degrees Fahrenheit. In Lomita, the annual average precipitation is 14 inches. Throughout the year, there is a comparatively even distribution of rainfall. With an average rainfall of 3.23 inches, February tends to be the wettest month of the year.

The history of Lomita traces back to its earliest known inhabitants, the Gabrielino Indians, who lived in the area as early as 9000 BC. Their village, Suangna, was situated near present-day Carson. The Spanish period began with explorers Juan Rodriguez



Cabrillo and Sebastian Viscaino, and by 1784, the land that included Lomita was granted as part of Rancho San Pedro to Spanish soldier Juan Jose Dominguez. Tensions later arose between the Dominguez and Sepulveda families over neighboring Rancho Los Palos Verdes, eventually leading to land disputes that were settled in 1841. Lomita's ranching era thrived until the 1860s when a combination of natural disasters, smallpox, and drought reduced the economy. In 1882, the land was sold off to various buyers, including farmer Nathaniel Andrew Narbonne, whose name remains tied to the area through schools and landmarks. Lomita's transformation continued through the 20th century, with its population boom post-World War II and its incorporation in 1964 to prevent annexation by surrounding cities. Despite its reduction in size, Lomita has retained its

small-town charm while navigating boundary disputes, economic shifts, and regional developments.

## 2.2 Development Trends

The City is 1.97 square miles in area. The Land Use Element of the City's General Plan provides a guide for land use, future growth, and development within the City. Since the 2018 Hazard Mitigation Plan, there have been no major changes in development that have greatly affected the City's vulnerability to the identified hazards.

The following describes land use designations, as amended, for the City. These descriptions were excerpted from the City's 2024 General Plan Update as an attempt to designate the proposed general distribution and intensity of uses of the land for housing, business, industry, open space, public facilities, and other categories of public and private uses.

**44 CFR 201.6(c)(2)(ii)(C):** The plan **should** describe vulnerability in terms of] providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

### *Residential Density*

Each residential land use designation includes a range of allowable densities, calculated as the number of dwelling units allowed per acre (du/ac). The maximum density represents a potential maximum density (number of housing units per acre) that could be achieved if all other requirements are met, including zoning standards in the municipal code.

### *Nonresidential Intensity*

Floor area ratio (FAR) is a measurement used to identify nonresidential land use intensity. The FAR is the ratio of the total gross floor area of all buildings on a lot compared to the total area of that lot. Higher FARs generally indicate larger buildings and/or more stories, but the size and height of the building can vary a great deal within the same FAR. Note, FAR is also a measure used in regulating the intensity of mixed-use areas and projects.

## Residential Land Uses

### *Residential-Agricultural (R-AG)*

The Residential – Agricultural land use designation provides for the development of residential uses of lower density. The designation generally permits the keeping of farm animals and development densities of up to 10.89 units per net acre. Any new land division or subdivision must



reflect the Residential – Low Density intensity standards, if the lot sizes for individual units are less than 10,000 square feet.

#### *Residential-Low Density Residential (R-LD)*

The Residential – Low Density land use designation provides for the development of single-family residential land uses. The allowable development density is 5.8 to 10.89 units per net acre.

#### *Residential-Medium Density (R-MD)*

The Residential – Medium Density land use designation provides for the development of a range of residential land uses, including detached and attached single-family, duplexes, multifamily dwellings, and mobile home communities. The allowable development density for this category is 10.9 to 19.8 units per net acre.

#### *Residential-High Density (R-HD)*

The Residential – High Density land use designation provides for the development of a range of multifamily dwellings and mobile home communities. The allowable development density for this category is 19.8 to 43.6 units per net acre.

## **Commercial Land Uses**

#### *Manufacturing- Commercial (M-C)*

The Manufacturing-Commercial land use designation provides for a range of commercial uses and medium and light industrial uses, such as manufacturing, warehousing, research and development, and other industrial uses that can operate indoors or behind effective screening. The maximum FAR for this designation is 1:1.

#### *Publicly Owned Land (POL)*

The Publicly Owned Land land use designation provides for facilities built and maintained for public uses, such as the Civic Center, Fire Station, County Offices, Library, Museum, and Navy Fields. The designation also applies to public schools, parks, and other public and quasi-public uses.

## **Mixed Land Uses**

#### *Mixed-Use 30 (MU30)*

The Mixed-Use – 30 land use designation provides for the development of residential and nonresidential development on the same project site in mixed-use formats, either vertically (such as when residential uses are located over commercial uses) or horizontally (such as when the

street frontage of a site is devoted to commercial uses with residential uses behind). This designation intends to support lower-scale development in the city's historic center, with a focus on maintaining smaller-scale development. The designation permits residential development densities of 20 to 30 units per net acre. The maximum intensity of nonresidential development is a FAR of 1:1. For projects including residential and nonresidential components, the density requirements shall apply to the residential component, and the FAR shall apply to the nonresidential component. Standalone commercial projects are allowed; stand-alone residential projects are prohibited, except the sites identified in the 2021-2029 Housing Element's Housing Sites Inventory.

#### *Mixed-Use 40 (MU40)*

The Mixed-Use 40 land use designation provides for the development of residential and nonresidential development on the same project site in mixed-use formats, either vertically or horizontally. The designation permits residential development densities of 20 to 40 units per net acre. The maximum intensity of nonresidential development is a FAR of 1:1. For projects including residential and nonresidential components, the density requirements shall apply to the residential component, and the FAR shall apply to the nonresidential component. Standalone commercial projects are allowed; stand-alone residential projects are prohibited, except the sites identified in the 2021-2029 Housing Element's Housing Sites Inventory.

#### *Mixed-Use-70 (MU70)*

The Mixed-Use – 70 land use designation provides for the development of residential and nonresidential development on the same project site in mixed-use formats, either vertically or horizontally. The designation permits residential development densities of 20 to 70 units per net acre. The maximum intensity of nonresidential development is a FAR of 1:1. For projects which include residential and nonresidential components, the density requirements shall apply to the residential component, and the FAR shall apply to the nonresidential component. Standalone commercial projects are allowed; stand-alone residential projects are prohibited, except the sites identified in the 2021-2029 Housing Element's Housing Sites Inventory.

**Table 2.1: City of Lomita 2045 Potential Buildout Summary**

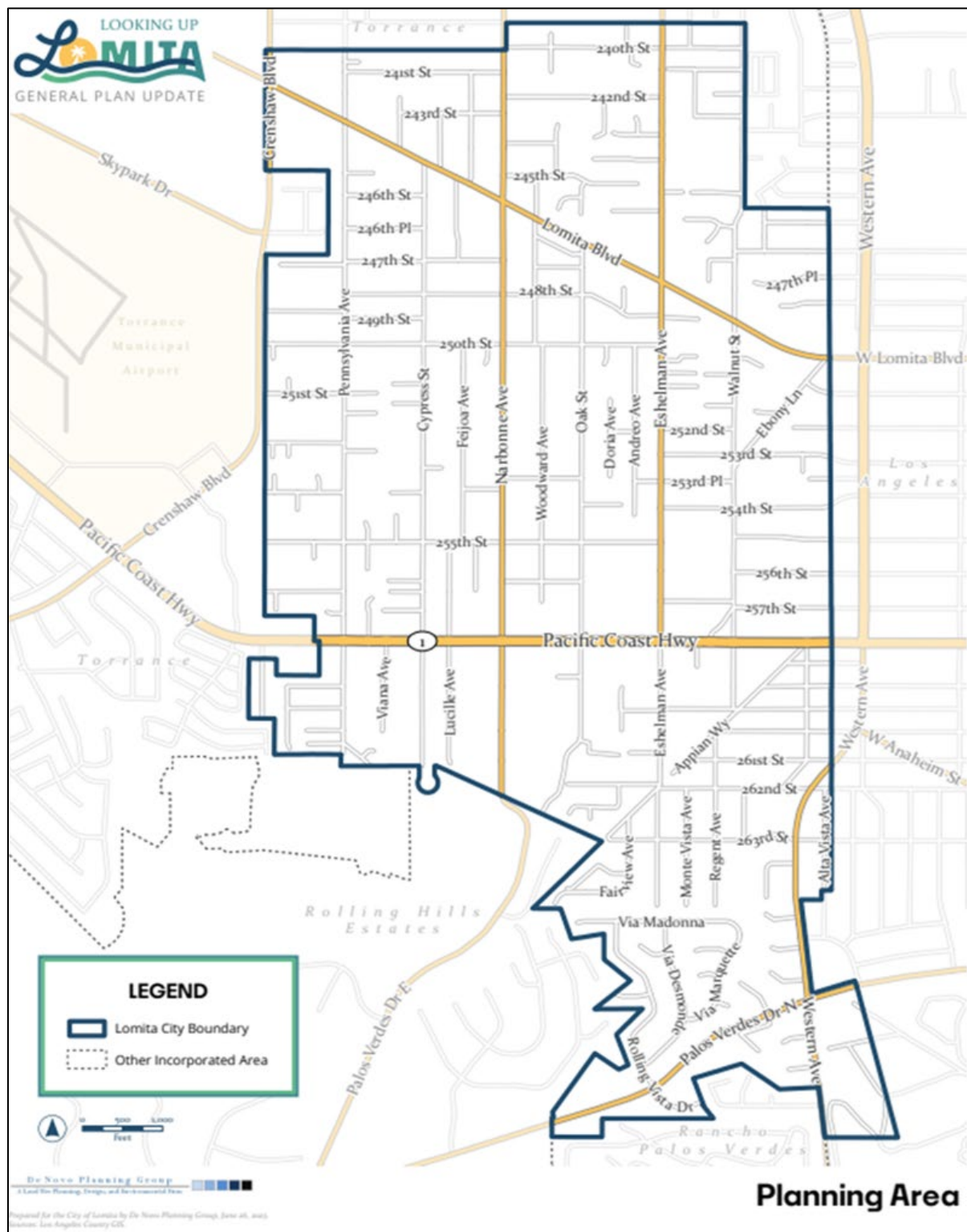
| <b>LAND USE DESIGNATION</b> | <b>ACRES</b> | <b>ALLOWED DENSITY</b> | <b>ASSUMED DENSITY</b> | <b>UNITS</b> | <b>POPULATION</b> |
|-----------------------------|--------------|------------------------|------------------------|--------------|-------------------|
| Residential-Agricultural    | 90           | 0-10.89 du/ac          | 8.71 du/ac             | 785          | 2,072             |

|                             |     |                        |                      |      |        |
|-----------------------------|-----|------------------------|----------------------|------|--------|
| Residential- Low Density    | 505 | 5.8-10.89 du/ac        | 8.71 du/ac           | 4398 | 11,610 |
| Residential- Medium Density | 66  | 10.9-19.79 du/ac       | 17.8 du/ac           | 1130 | 2,983  |
| Residential- High Density   | 25  | 19.8-43.6 du/ac        | 34.8 du/ac           | 868  | 2,291  |
| Manufacturing- Commercial   | 11  | FAR 1:1                | 0.3 FAR              | --   | --     |
| Publicly Owned Land         | 63  | No Max                 | --                   | --   | --     |
| Mixed-use- 30               | 13  | 20-30 du/ac<br>FAR 1:1 | 11 du/ac<br>0.35 FAR | 146  | 385    |
| Mixed Use- 40               | 136 | 20-40 du/ac<br>FAR 1:1 | 14 du/ac<br>0.3 FAR  | 1883 | 4,972  |
| Mixed-Use- 70               | 73  | 20-70 du/ac<br>FAR 1:1 | 24 du/ac<br>0.3 FAR  | 1949 | 5,146  |

Source: [2024 City of Lomita General Plan Update Land Use Element](#)

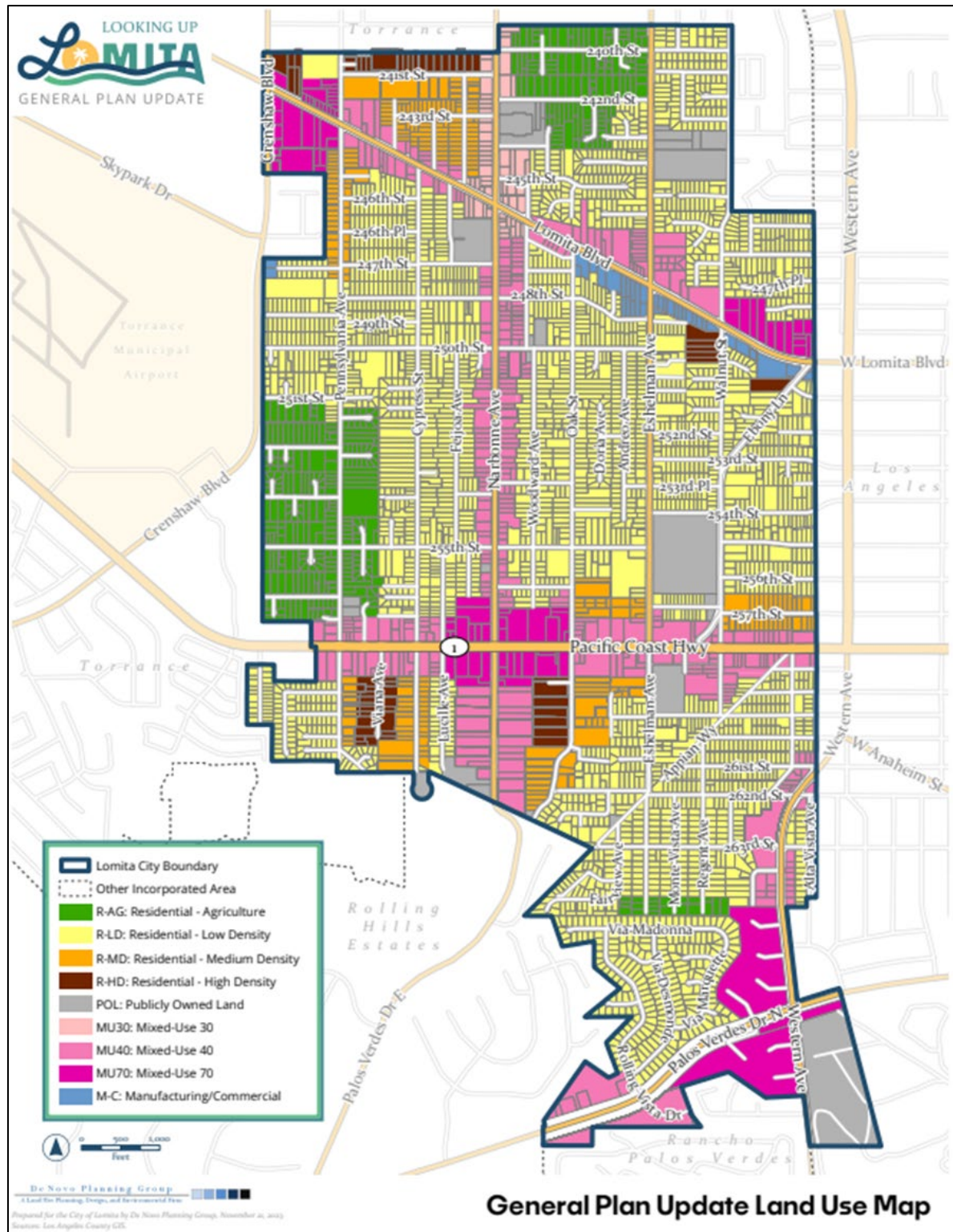


Figure 2.1: City of Lomita Planning Area



Source: [2024 City of Lomita General Plan Update Land Use Element](#)

Figure 2.2: City of Lomita Land Use Map



Source: [2024 City of Lomita General Plan Update Land Use Element](#)

## 2.3 Population

Since its incorporation in 1964, the City's population has increased from 15,000 residents to 21,325, according to the [U.S. Census Bureau](#) (2022). The City's population increased from 15,000 to over 19,000 between 1964 and 1970. Conversely, future population growth is expected to grow slowly as development opportunities become increasingly limited and the City reaches its potential for building out. The City's population is expected to increase by 7.7% by 2045, with an average growth rate of 0.14% per year. The following table, taken from the City's Urban Water Management Plan, outlines the City's estimate for population growth through 2045.

**Table 2.2: Estimated Population Growth**

| <b>Year</b>       | <b>2025</b> | <b>2030</b> | <b>2035</b> | <b>2040</b> | <b>2045</b> |
|-------------------|-------------|-------------|-------------|-------------|-------------|
| <b>Population</b> | 21,325      | 21,877      | 22,424      | 22,979      | 23,542      |

Source: [2020 City of Lomita Urban Water Management Plan](#)

Census data shows that the City's population remained relatively stable between 1970 and 1980, with a decline during the decade following 1970. Since 2000, population growth has been minimal, averaging just 0.1 percent annually from 2000 to 2010. This slow growth may be due to limited available land and an aging population. Similarly, Los Angeles County saw an average growth rate of 0.3 percent per year, with the City's growth over the past decade slightly trailing that of the County overall. The Hazard Mitigation Planning Committee (HMPC) confirmed these projections, recognizing that the City is largely developed with limited migration into the area.

## 2.4 Demographics

When considering the impacts of hazard scenarios on the community, the City is cognizant that some portions of the community will be impacted to a greater extent than others. A better understanding of how disasters impact the community, even disproportionately, can help guide resiliency efforts to better serve the entire community. Although other factors may be present, this section will focus on how low economic status, age, physical or cognitive disabilities, and limited English proficiency might make certain groups more vulnerable and can exacerbate the impacts of a hazard scenario.

FEMA Guidance requires agencies engaging in hazard mitigation planning to consider vulnerable populations as part of the planning process. The Center for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR) defines social

vulnerability as the “demographic and socioeconomic factors (such as poverty, lack of access to transportation, and crowded housing) that adversely affect community-level stressors.” To address this planning requirement the City considered vulnerable groups as part of the plan update through identifying areas within the City more prone to hazard stress due to multiple factors. The City utilized guidance from the CDC/ATSDR to identify elements contributing to vulnerability. Those elements are listed below.

| SOCIOECONOMIC STATUS                                                                                                                                                               | HOUSEHOLD CHARACTERISTICS                                                                                                                                                                                            | HOUSING TYPE & TRANSPORTATION                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>•Below Poverty</li> <li>•Unemployed</li> <li>•Housing Cost Burden</li> <li>•No High School Diploma</li> <li>•No Health Insurance</li> </ul> | <ul style="list-style-type: none"> <li>•Aged 65 &amp; Older</li> <li>•Aged 17 &amp; Younger</li> <li>•Civilian with a Disability</li> <li>•Single-Parent Household</li> <li>•English Language Proficiency</li> </ul> | <ul style="list-style-type: none"> <li>•Multi-Unit Structures</li> <li>•Moblie Homes</li> <li>•Crowding</li> <li>•No Vehicle</li> <li>•Group Quarters</li> </ul> |

To further refine the vulnerable population within the City, the Hazard Mitigation Planning Committee (HMPC) considered the community and established the following individual vulnerability factors that drove community vulnerability discussions throughout the plan development process.

- Age
- Socioeconomic Status
- Mobility and Transportation
- Language/Communication Barriers
- Housing

The vulnerability factors that impact the community within Lomita are included in Table 2.3 below.

**Table 2.3: Demographic Estimates**

| ESTIMATE CATEGORY              | CENSUS ESTIMATES |
|--------------------------------|------------------|
| Population (2022) *            | 19,782           |
| Persons under 5 years, percent | 6.6%             |



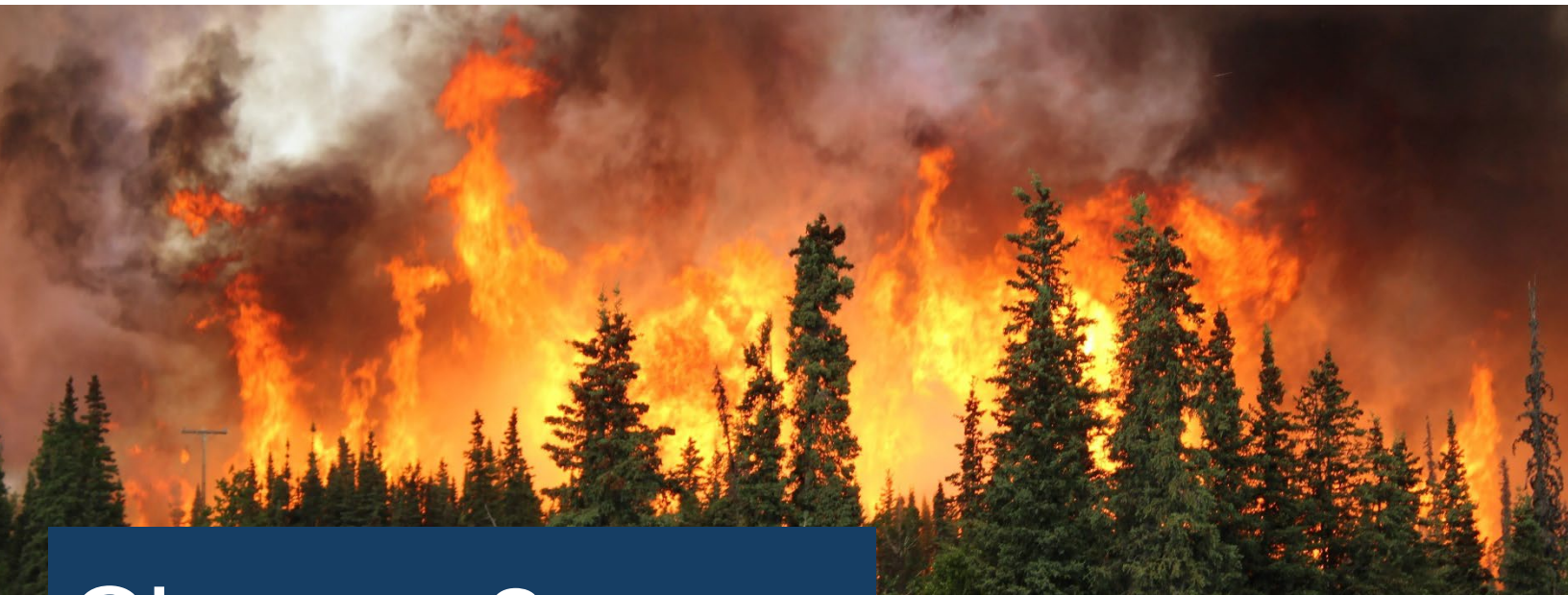
|                                                                               |          |
|-------------------------------------------------------------------------------|----------|
| Persons under 18 years, percent                                               | 20.1%    |
| Persons 65 years and over, percent                                            | 18.3 %   |
| Persons with a disability under age 65, percent (2018-2022)                   | 6.6%     |
| Persons with independent living difficulty, percent (Ages 18-64, 2022)        | 2.2%     |
| Households (2018-2022)                                                        | 7,890    |
| Persons per household (2018-2022)                                             | 2.59     |
| Limited English Speaking (LEP) Households (2022)                              | 659      |
| Limited English Speaking (LEP) Households, percent (2022)                     | 8.4%     |
| Households with a computer, percent (2018-2022)                               | 94.2%    |
| Households with a broadband internet subscription, percent (2018-2022)        | 90.9%    |
| High School graduate or higher, percent of persons aged 25 years+ (2018-2022) | 87.9%    |
| Bachelor's degree or higher percent of persons aged 25 years+ (2018-2022)     | 39.1%    |
| Median Household income (in 2022 dollars, 2018-2022)                          | \$87,717 |
| Per capita income in past 12 months (in 2022 dollars, 2018-2022)              | \$46,488 |
| Persons in poverty, percent                                                   | 12.1%    |

Source: [U.S. Census Bureau](https://www.census.gov)

Although many inferences could be made based on the table above, it is clear 12.1% of the community is recorded being at or below poverty level. Additionally, 18.3% of the community is over the age of 65 while 6.6% are under the age of 5. Based on the data provided for the City, 6.6% of the population under the age of 65 within the City's jurisdiction are classified as being disabled. Additionally, of the population that was identified as being between the ages of 18 and 64, 2.2% of the individuals were classified as having a disability which includes independent living difficulty. Of the total households within the City's jurisdiction, it was identified that 8.4% of

households include individuals that can be classified as LEP. While each of these groups represents a small portion of the City, it can be assumed this percentage of the public will be impacted by disasters to a higher degree than the rest of the community. As the City moves forward, considerations for this small sector of the population should be made to provide effective resilience measures.

The HMPC is cognizant of the complicated, intersectional nature of social vulnerabilities. As such, the HMPC discussed that more research was needed to more fully understand the levels of vulnerabilities throughout the City. The effort to better serve the community is ongoing and the City intends to expand its understanding of vulnerable populations and expand its capabilities to provide equitable services. For the purpose of hazard mitigation planning, the HMPC decided to focus its efforts on persons 65 years and older as well as residents in multi-unit structures. This was done because, according to personal experiences held by some HMPC participants and feedback received from both the public and representatives of vulnerable populations, these groups represent the most overlap of the aforementioned social vulnerability characteristics (i.e. economically disadvantaged, disability, age, housing difficulties) and make up nearly 20% of the population. As such, most of the outreach efforts and mitigation strategies seek to assist these groups. As more is understood about other socially vulnerable groups, the City will expand its efforts in future planning efforts.



# Chapter 3

## Risk Assessment

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## **LIST OF HAZARD PROFILE APPENDICES**

Appendix A – Earthquake  
Appendix B – Windstorm  
Appendix C – Water Shortage  
Appendix D – Urban Fire  
Appendix E – Flood  
Appendix F- Hazardous Materials Release  
Appendix G- Aircraft Incident

## 3.1 Risk Assessment

The Risk Assessment consists of four steps: Hazard Identification, Hazard Profiling, Asset Inventory, and Loss Estimates. This chapter includes the Hazard Identification and Hazard Profiling steps to evaluate the hazards of primary concern to local decision-makers in order to provide a basis for loss estimates. Additionally, the Risk Assessment provides a foundation for the evaluation of mitigation actions which can help reduce the impacts of potential hazard events.



### Step 1 Identify Hazards

This step identified the natural and man-made hazards which might affect the City and then narrowed the list to those hazards which are most likely to occur. These hazards included natural, technical, and human-caused events, with an emphasis on the effect of disaster events on critical facilities (e.g., government buildings as well as public services including police and fire) and vulnerable populations. The Hazard Mitigation Planning Committee (HMPC) participated in a hazard identification exercise to identify and rank the potential hazards within the City.

### Step 2 Profile Hazard Events

Hazard profiles consist of either a map indicating the area impacted by each hazard or key information regarding the characteristics of hazard events within the planning area. To develop detailed hazard profiles, relevant open-source natural hazard studies and mapping projects were reviewed and documented within this report. This planning step determined the magnitude, frequency, and location characteristics of relevant natural hazards (predicted ground acceleration values, fault locations, flood plains, etc.) that were utilized as the design-basis for the loss estimates. These profiles are in the appendices attached to this chapter.

### Step 3 Inventory Assets

The purpose of this step was to determine the quantity of buildings, people (specifically vulnerable populations), and City assets which lie in the different hazard areas and what proportion of the City this represents. The asset inventory was completed utilizing a January 2024 property valuation insurance report which included asset locations and specifications for the following assets:

- Government Facilities
- Water system components: storage reservoirs, pumping plants, wells, etc.
- Public Service Buildings: police and fire

The development of the comprehensive inventory facilitated the development of loss estimates for all hazard scenarios.

## Step 4 Loss Estimates

The loss estimate step relied on detailed information regarding the hazard probability and maps that were completed as part of the hazard profiles. This information was utilized to apply the hazard probabilities and recurrence intervals to the assets and vulnerable populations within the City. This step was critical in determining which assets and population groups were subject to the greatest potential impacts and which hazard event was likely to produce the greatest potential losses or injuries. The conclusion of this step precipitated a comprehensive loss estimate which captured the projected impacts to City Assets and population groups throughout the City. This understanding of the vulnerability for the community and City infrastructure was used to develop mitigation actions which seek to promote resiliency for the affected community/assets.

## 3.2 Hazard Identification

The hazard identification and ranking was obtained primarily from the Hazard Identification Exercise. Each hazard profile includes a summary of the Hazard Identification Exercise identified risk factors and overall rank for each hazard, in addition to the detailed hazard description, historical occurrences, and projected future probability, magnitude, and frequency.

The hazard identification exercise was conducted as a participatory HMPC workshop to identify the potential hazards within the City. The hazard identification exercise was facilitated utilizing an interactive spreadsheet program that asks specific questions on potential hazards and then rated them accordingly. These questions guide the team in the correct facilitation and application of the program. Table 3.1 summarizes the Hazard Identification Exercise risk factors, lists the descriptions of each factor, provides the specific descriptor choices for each risk factor, and summarizes the risk ranking associated with each hazard.

Table 3.1 Risk Factors for Hazard Identification

| RISK FACTOR            | DESCRIPTION                                                                                                                                                                                                                                      | DESCRIPTORS                                                                                                        | VALUE |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------|
| PROBABILITY/ FREQUENCY | Prediction of how often a hazard will occur in the future.                                                                                                                                                                                       | Rare event - occurs less than once every 50 years                                                                  | 1     |
|                        |                                                                                                                                                                                                                                                  | Infrequent event - occurs between once every 8 years and once every 50 years (inclusive)                           | 2     |
|                        |                                                                                                                                                                                                                                                  | Regular event - occurs between once a year and once every 7 years                                                  | 3     |
|                        |                                                                                                                                                                                                                                                  | Frequent event - occurs more than once a year                                                                      | 4     |
|                        |                                                                                                                                                                                                                                                  |                                                                                                                    |       |
| CONSEQUENCE/SEVERITY   | Physical Damage - structures and lifelines<br>Economic Impact – loss of function for power, water, sanitation, roads, etc., as applicable                                                                                                        | No damage                                                                                                          | 1     |
|                        |                                                                                                                                                                                                                                                  | Minor/slight damage to buildings and structures, no loss of lifelines                                              | 2     |
|                        |                                                                                                                                                                                                                                                  | Moderate building damage, minor loss of lifelines (less than 12 hours)                                             | 3     |
|                        |                                                                                                                                                                                                                                                  | Moderate building damage, lifeline loss (less than 24 hours)                                                       | 4     |
|                        |                                                                                                                                                                                                                                                  | Extensive building damage, widespread loss of lifelines (water, gas, electricity, sanitation, roads), loss of life | 5     |
| VULNERABILITY          | Impact Area - area impacted by a hazard event,<br>Secondary Impacts - Capability of triggering additional hazards Onset - Period of time between initial recognition of an approaching hazard and when the hazard begins to impact the community | No physical damage, no secondary impacts                                                                           | 1     |
|                        |                                                                                                                                                                                                                                                  | Localized damage area                                                                                              | 2     |
|                        |                                                                                                                                                                                                                                                  | Localized damage area, minor secondary impacts, delayed hazard onset                                               | 3     |
|                        |                                                                                                                                                                                                                                                  | Moderate damage area, moderate secondary impacts, moderate warning time                                            | 4     |
|                        |                                                                                                                                                                                                                                                  | Widespread damage area, significant secondary impacts, no warning time                                             | 5     |

Each profile also includes a ranking of the hazard (ranging from low hazard to high hazard). Table 3.2 illustrates the matrix for how each hazard was ranked according to all of the previously mentioned factors. Table 3.3 provides the value determinations for each ranking. The HMPC determined this initial profile ranking based on the hazard identification, profile research, group discussion, and evaluation of all of the data.

**Table 3.2 Risk Rank Matrix**

| PROBABILITY/<br>FREQUENCY DESCRIPTION                                                         | RISK RANKING MATRIX   |                      |    |    |    |    |    |
|-----------------------------------------------------------------------------------------------|-----------------------|----------------------|----|----|----|----|----|
|                                                                                               | Probability/Frequency | Consequence/Severity |    |    |    |    |    |
| Rare Event:<br>Occurs less than once every 50<br>years                                        | Value                 | 1                    | 1  | 2  | 3  | 4  | 5  |
|                                                                                               | Vulnerability         | 1                    | 1  | 2  | 3  | 4  | 5  |
|                                                                                               |                       | 2                    | 2  | 4  | 6  | 8  | 10 |
|                                                                                               |                       | 3                    | 3  | 6  | 9  | 12 | 15 |
|                                                                                               |                       | 4                    | 4  | 8  | 12 | 16 | 20 |
|                                                                                               |                       | 5                    | 5  | 10 | 15 | 20 | 25 |
| Infrequent Event:<br>Occurs between once every 8 years<br>and once every 50 years (inclusive) | Probability/Frequency | Consequence/Severity |    |    |    |    |    |
|                                                                                               | Value                 | 2                    | 1  | 2  | 3  | 4  | 5  |
|                                                                                               | Vulnerability         | 1                    | 2  | 4  | 6  | 8  | 10 |
|                                                                                               |                       | 2                    | 4  | 8  | 12 | 16 | 20 |
|                                                                                               |                       | 3                    | 6  | 12 | 18 | 24 | 30 |
|                                                                                               |                       | 4                    | 8  | 16 | 24 | 32 | 40 |
|                                                                                               |                       | 5                    | 10 | 20 | 30 | 40 | 50 |
| Regular Event:<br>Occurs between once a year and<br>once every 7 years                        | Probability/Frequency | Consequence/Severity |    |    |    |    |    |
|                                                                                               | Value                 | 3                    | 1  | 2  | 3  | 4  | 5  |
|                                                                                               | Vulnerability         | 1                    | 3  | 6  | 9  | 12 | 15 |
|                                                                                               |                       | 2                    | 6  | 12 | 18 | 24 | 30 |
|                                                                                               |                       | 3                    | 9  | 18 | 27 | 36 | 45 |
|                                                                                               |                       | 4                    | 12 | 24 | 36 | 48 | 60 |
|                                                                                               |                       | 5                    | 15 | 30 | 45 | 60 | 75 |

Table 3.3 Risk Rank Categorization

|                               |               |
|-------------------------------|---------------|
| <b>High Hazard</b>            | <b>50-100</b> |
| <b>Moderately High Hazard</b> | <b>25-49</b>  |
| <b>Moderate Hazard</b>        | <b>15-24</b>  |
| <b>Moderately Low Hazard</b>  | <b>5-14</b>   |
| <b>Low Hazard</b>             | <b>1-4</b>    |

Table 3.4 Hazard Ranking Summary

| <b>HAZARD RANK</b>                                                                  |                             | <b>SCORE</b> |
|-------------------------------------------------------------------------------------|-----------------------------|--------------|
|    | EARTHQUAKE                  | 40           |
|    | WINDSTORM                   | 36           |
|    | WATER SHORTAGE              | 36           |
|    | URBAN FIRE                  | 24           |
|  | FLOOD                       | 24           |
|  | HAZARDOUS MATERIALS RELEASE | 20           |
|  | AIRCRAFT INCIDENT           | 16           |

Note: The Hazard Mitigation Planning Committee did not identify any Low or Moderately Low ranked hazards.

## Trends in Perceived Vulnerability

As illustrated above, the HMPC reviewed its perceived vulnerability to determine the potential impact of each hazard on the City. The Steering Committee began with the hazards identified in the 2018 Hazard Mitigation Plan and used the list as a springboard in determining current perceived vulnerability. The current update retains Earthquake, Flood, and Windstorm as identified hazards, while replacing Drought with Water Shortage. Additionally, the team added new hazards, including: Urban Fire, Hazardous Materials Release, and Aircraft Incident. This was done in an effort to focus HMPC efforts on target hazards the City would like to mitigate during the next 5-year planning period. Also, the HMPC discussed that, should a shift in perceived hazard



vulnerability occur within the next 5-year planning period, the HMPC could reconvene and amend this plan to include the missing hazard.

During the Plan Update, the HMPC considered the hazards which impact the region. For this effort, the HMPC consulted [FEMA's National Risk Index](#) which indicated, for Los Angeles County, the City should consider Wildfire, Flooding, Landslide, Heat Wave, and Earthquake. Apart from Earthquake, the rest of the hazards were not included in the final list of identified hazards. This was because, generally, these hazards do not apply to the City. With very few open areas, wildfire was not considered credible. There are no rivers or to allow for riverine flooding and the terrain is relatively flat, rendering landslide and riverine flooding inapplicable as well. Heat Wave was initially considered during the first and second meeting, but the HMPC discussed that the City has existing mitigation measures that are sufficient and the City does not have regular cases of impacts to public health. In conclusion, the final list of identified hazards was kept brief, focusing only on those hazards the HMPC considered significant and relevant over the next 5-year planning period.

### 3.3 Considerations for Climate Change

With the release of the California Adaptation Planning Guide (APG) in March 2015 and revised in 2021, the City aimed to include the effects of climate change in the Hazard Mitigation Plan update. As identified in the “Understanding Regional Characteristics” portion of the APG, the City is located in the South Coastal Region of California. As a result, the City considered the following climate change impacts as recommended by the APG:

- Increased Temperatures
- Reduced Precipitation
- Sea Level Rise
- Reduced tourism
- Reduced Water Supply
- Wildfire Risk
- Coastal Erosion
- Public Health (heat and air quality)

The HMPC engaged in a discussion to determine which impacts posed a viable threat to the City and what areas might be impacted. While some impacts clearly applied to the City, some required additional research. Studies were conducted to look at recorded trends for sea level rise, wildfire, and regional temperature increases. The result of the study was the following list of perceived, feasible impacts which were assumed could impact all portions of the City over the next five to ten years:

- Increased Temperatures
- Reduced Precipitation
- Reduced Water Supply

After reviewing the results of each of these impacts, the HMPC considered how these impacts would be perceived by the City. For instance, increased temperatures and reduced water supply would likely lead to drought conditions, while increased temperatures and reduced precipitation could indicate a higher likelihood of fire conditions. Additionally, flooding and water shortages could be further impacted by climate change, as shifting weather patterns may alter rainfall frequency and intensity. These considerations are also discussed in detail within the hazard profile appendices. The City recognizes the potential influence of changing weather patterns, and the HMPC has noted that, should new information emerge demonstrating a significant impact from climate change, the HMPC will reconvene to amend the current plan accordingly.



## 3.4 Asset Inventory

A critical step in completing the Risk Assessment is developing a detailed asset inventory and documenting potential asset damages due to each identified hazard. The calculated loss estimates are based on values determined during the initial asset inventory. The City developed a comprehensive inventory of all assets, including their locations, to ensure accurate loss estimates. Specific values were assigned to critical City facilities, with the understanding that these values are estimates used for planning purposes.

The replacement values for facilities were derived from a variety of sources, including insurance surveys and data from previous plans. For public facilities and critical infrastructure, the replacement value represents the cost of rebuilding the facility to the same size and functionality, using current construction prices and materials. This value provides a baseline for understanding the potential financial impact if these assets were damaged or destroyed by a hazard. Next, the HMPC reviewed each asset and assigned a percent damage for each identified hazard, considering factors such as the type of hazard, location, and vulnerability of the asset. The percent damage indicates the anticipated degree of damage that each asset could experience in the event of a hazard. These percentages were determined based on historical data and skilled judgment from City staff who had information specific to each type of hazard. Finally, the Loss Estimates were calculated by applying the assigned percent damage to the total replacement value of each asset. This provides an estimate of the financial loss expected for each facility or service in the event of a hazard, helping the City to understand potential impacts and prioritize mitigation actions.

### Future Developments

Currently, there are no planned developments for future buildings within the City; however, the hazard maps and loss estimates are dynamic, and the calculations will be updated to account for future developments as the potential arises. The Asset Inventory Summary Tables and map depicting the asset locations for the City are presented on the following pages. The following tables present the asset categories, facility names, addresses, total replacement values, percent damage, and corresponding loss estimates for each identified hazard. These estimates were used to guide mitigation action strategy development.

Table 3.5: Asset Inventory Summary

| TYPE                                                                      | NAME                                           | ADDRESS               | TOTAL VALUE         |
|---------------------------------------------------------------------------|------------------------------------------------|-----------------------|---------------------|
| CITY PROPERTY                                                             | City Hall and Council Chambers                 | 24300 Narbonne Avenue | \$8,333,000         |
| CITY PROPERTY                                                             | Lomita Park- Tom Rico Community Center and Gym | 24428 Eshelman Avenue | \$4,295,000         |
| CITY PROPERTY                                                             | Lomita Park- Stephenson Center                 | 24428 Eshelman Avenue | \$1,203,000         |
| CITY PROPERTY                                                             | Lomita Manor Senior Housing                    | 24925 Walnut Street   | \$16,079,000        |
| WATER FACILITY                                                            | Cypress Water Production Facility              | 26112 Cypress Street  | \$5,286,000         |
| WATER FACILITY                                                            | Well No. 5                                     | 26112 Cypress Street  | \$1,937,000         |
| WATER FACILITY                                                            | Water Maintenance (Public Works Yard)          | 24373 Walnut Avenue   | \$1,606,000         |
| WATER FACILITY                                                            | Water Pump Station                             | 26255 Appian Way      | \$1,065,000         |
| Note: Values provided by January 2024 Assessment by CBIZ Valuation Group. |                                                |                       | <b>\$39,804,000</b> |

Table 3.6: Loss of Function

| LOSS OF FUNCTION / CONTINUITY PREMIUM (1 DAY)                                                                                                                    |                  |               |                    |                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------|--------------------|--------------------|
| POPULATION:                                                                                                                                                      | 19,841           |               |                    |                    |
| CATEGORY                                                                                                                                                         | Value Per Person | Value Per Day | Continuity Premium | Total              |
| WATER SERVICE                                                                                                                                                    | \$136            | \$4,204,167   | -                  | \$4,204,167        |
| WATERWATER                                                                                                                                                       | \$60             | \$1,853,450   | -                  | \$1,853,450        |
| Note: Population taken from 2024 census data provided on the City's website.<br>Note: Values Per Person were listed from FEMA's "BCA Reference Guide, June 2009" |                  |               |                    | <b>\$6,057,617</b> |

Table 3.7: Loss Estimates for Earthquake, Windstorm, Water Shortage, Urban Fire

| CITY OF LOMITA<br>VULNERABILITY ASSESSMENT CALCULATIONS |                                                |                       |              |            |               |           |               |                |               |            |               |
|---------------------------------------------------------|------------------------------------------------|-----------------------|--------------|------------|---------------|-----------|---------------|----------------|---------------|------------|---------------|
|                                                         |                                                |                       |              | EARTHQUAKE |               | WINDSTORM |               | WATER SHORTAGE |               | URBAN FIRE |               |
| TYPE                                                    | Name                                           | Address               | Total        | % Damage   | Loss Estimate | %         | Loss Estimate | %              | Loss Estimate | % Damage   | Loss Estimate |
| CITY PROPERTY                                           | City Hall and Council Chambers                 | 24300 Narbonne Avenue | \$8,333,000  | 60%        | \$4,999,800   | 20%       | \$1,666,600   | 1%             | \$83,330      | 35%        | \$2,916,550   |
| CITY PROPERTY                                           | Lomita Park- Tom Rico Community Center and Gym | 24428 Eshelman Avenue | \$4,295,000  | 35%        | \$1,503,250   | 20%       | \$859,000     | 1%             | \$42,950      | 25%        | \$1,073,750   |
| CITY PROPERTY                                           | Lomita Park- Stephenson Center                 | 24428 Eshelman Avenue | \$1,203,000  | 35%        | \$421,050     | 20%       | \$240,600     | 1%             | \$12,030      | 20%        | \$240,600     |
| CITY PROPERTY                                           | Lomita Manor Senior Housing                    | 24925 Walnut Street   | \$16,079,000 | 60%        | \$9,647,400   | 40%       | \$6,431,600   | 1%             | \$160,790     | 35%        | \$5,627,650   |
| WATER FACILITY                                          | Cypress Water Production Facility              | 26112 Cypress Street  | \$5,286,000  | 40%        | \$2,114,400   | 30%       | \$1,585,800   | 1%             | \$52,860      | 10%        | \$528,600     |
| WATER FACILITY                                          | Well No. 5                                     | 26112 Cypress Street  | \$1,937,000  | 30%        | \$581,100     | 20%       | \$387,400     | 1%             | \$19,370      | 10%        | \$193,700     |
| WATER FACILITY                                          | Water Maintenance                              | 24373 Walnut Avenue   | \$1,606,000  | 35%        | \$562,100     | 15%       | \$240,900     | 1%             | \$16,060      | 10%        | \$160,600     |
| WATER FACILITY                                          | Water Pump Station                             | 26255 Aspian Way      | \$1,065,000  | 40%        | \$426,000     | 20%       | \$213,000     | 1%             | \$10,650      | 10%        | \$106,500     |
| WATER SERVICE                                           |                                                |                       | \$4,204,167  | 80%        | \$3,363,334   | 20%       | \$840,833     | 20%            | \$840,833     | 15%        | \$630,625     |
| WASTEWATER                                              |                                                |                       | \$1,853,450  | 80%        | \$1,482,760   | 10%       | \$185,345     | 15%            | \$278,018     | 10%        | \$185,345     |
|                                                         |                                                |                       |              | Earthquake | \$25,101,194  | Windstorm | \$12,651,078  | Water Shortage | \$1,516,891   | Urban Fire | \$11,663,920  |

Table 3.8: Loss Estimates for Flood, Hazardous Materials Release, and Aircraft Incident

| CITY OF LOMITA<br>VULNERABILITY ASSESSMENT CALCULATIONS |                                                |                       |              | FLOOD       |                  | HAZARDOUS MATERIALS RELEASE    |                  | AIRCRAFT INCIDENT    |                  |
|---------------------------------------------------------|------------------------------------------------|-----------------------|--------------|-------------|------------------|--------------------------------|------------------|----------------------|------------------|
| TYPE                                                    | Name                                           | Address               | Total        | %<br>Damage | Loss<br>Estimate | %<br>Damage                    | Loss<br>Estimate | %<br>Damage          | Loss<br>Estimate |
| CITY PROPERTY                                           | City Hall and Council Chambers                 | 24300 Narbonne Avenue | \$8,333,000  | 5%          | \$416,650        | 7%                             | \$583,310        | 25%                  | \$416,650        |
| CITY PROPERTY                                           | Lomita Park- Tom Rico Community Center and Gym | 24428 Eshelman Avenue | \$4,295,000  | 5%          | \$214,750        | 7%                             | \$300,650        | 10%                  | \$85,900         |
| CITY PROPERTY                                           | Lomita Park- Stephenson Center                 | 24428 Eshelman Avenue | \$1,203,000  | 5%          | \$60,150         | 7%                             | \$84,210         | 10%                  | \$24,060         |
| CITY PROPERTY                                           | Lomita Manor Senior Housing                    | 24925 Walnut Street   | \$16,079,000 | 15%         | \$2,411,850      | 7%                             | \$1,125,530      | 25%                  | \$4,019,750      |
| WATER FACILITY                                          | Cypress Water Production Facility              | 26112 Cypress Street  | \$5,286,000  | 5%          | \$264,300        | 7%                             | \$370,020        | 10%                  | \$158,580        |
| WATER FACILITY                                          | Well No. 5                                     | 26112 Cypress Street  | \$1,937,000  | 5%          | \$96,850         | 7%                             | \$135,590        | 20%                  | \$77,480         |
| WATER FACILITY                                          | Water Maintenance                              | 24373 Walnut Avenue   | \$1,606,000  | 5%          | \$80,300         | 7%                             | \$112,420        | 20%                  | \$48,180         |
| WATER FACILITY                                          | Water Pump Station                             | 26255 Aspian Way      | \$1,065,000  | 5%          | \$53,250         | 7%                             | \$74,550         | 20%                  | \$42,600         |
| WATER SERVICE                                           |                                                |                       | \$4,204,167  | 3%          | \$126,125        | 7%                             | \$294,292        | 5%                   | \$42,042         |
| WASTEWATER                                              |                                                |                       | \$1,853,450  | 3%          | \$55,604         | 5%                             | \$148,276        | 5%                   | \$9,267          |
|                                                         |                                                |                       |              | Flood       | \$3,779,829      | Hazardous<br>Materials Release | \$1,716,216      | Aircraft<br>Incident | \$4,924,509      |



Table 3.9: Loss Estimates Summary

| HAZARD                      | ESTIMATED LOSSES |
|-----------------------------|------------------|
| EARTHQUAKE                  | \$25,102,000     |
| WINDSTORM                   | \$12,652,000     |
| URBAN FIRE                  | \$11,664,000     |
| AIRCRAFT INCIDENT           | \$4,925,000      |
| FLOOD                       | \$3,780,000      |
| HAZARDOUS MATERIALS RELEASE | \$1,717,000      |
| WATER SHORTAGE              | \$1,517,000      |

Note: Values are rounded to the nearest thousand

# Appendix A

## Earthquake

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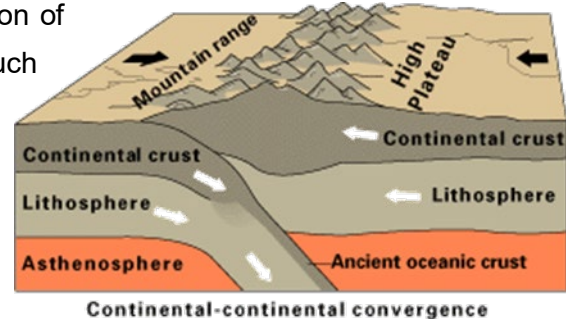
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## A.1 Earthquake Identification and Background

Plate tectonics is a starting point for understanding the forces within the Earth that cause earthquakes. Plates are thick slabs of rock that make up the outermost 100 kilometers of the Earth. The term "tectonics" describes the deformation of the Earth's crust, the forces producing such deformation, and the geologic and structural features that result. The constant motion of the plates causes stress in the brittle upper crust of the earth. These tectonic stresses build as the rocks are gradually deformed. The rock deformation, or strain, is stored in the rocks as elastic strain energy. When the strength of the rock is exceeded, rupture occurs along a fault. The rocks on opposite sides of the fault slide past each other as they spring back into a relaxed position. The strain energy is released partly as heat and partly as elastic waves called seismic waves. The passage of these seismic waves produces the ground shaking in earthquakes.



Faults are more likely to produce future earthquakes if they have rapid rates of movement, have had recent earthquakes along them, experience greater total displacements, and are aligned so that movement can relieve the accumulating tectonic stresses. Geologists classify faults by their relative hazards. "Active" faults, which represent the highest hazard, are those that have ruptured to the ground surface during the Holocene period (about the last 11,000 years). In contrast, "potentially active" faults are those that displaced layers of rock from the Quaternary period (the last 1,800,000 years). Determining if a fault is "active" or "potentially active" depends on geologic evidence, which may not be available for every fault.

### Ground Failure

Fissuring, settlement, and permanent horizontal and vertical shifting of the ground often accompanies large earthquakes. Although not as pervasive or as costly as the shaking itself, these ground failures can significantly increase damage and, under certain circumstances, can be the dominant cause of damage. The following is a list of different ground failure scenarios.

### Fault Rupture

The sudden sliding of one part of the earth's crust past another releases the vast store of elastic energy in the rocks as an earthquake. The resulting fracture is known as a fault, while the sliding movement of earth on either side of a fault is called fault rupture. Fault rupture begins below the

ground surface at the earthquake hypocenter, typically between three and ten miles below the ground surface in California. If an earthquake is large enough, the fault rupture will actually travel all the way to the ground surface, severely damaging structures built across its path.

## **Liquefaction**

In addition to the primary fault rupture that occurs right along a fault during an earthquake, the ground many miles away can also fail during the intense shaking. One common type of failure occurs when soft, water-saturated soil settles, causing the water to eject sediment particles as it works its way to the ground surface. This phenomenon, known as liquefaction, turns the soil into a fluid, causing it to lose the ability to support buildings and other structures. Areas susceptible to liquefaction include places where sandy sediments have been deposited by rivers along their course or by wave action along beaches.

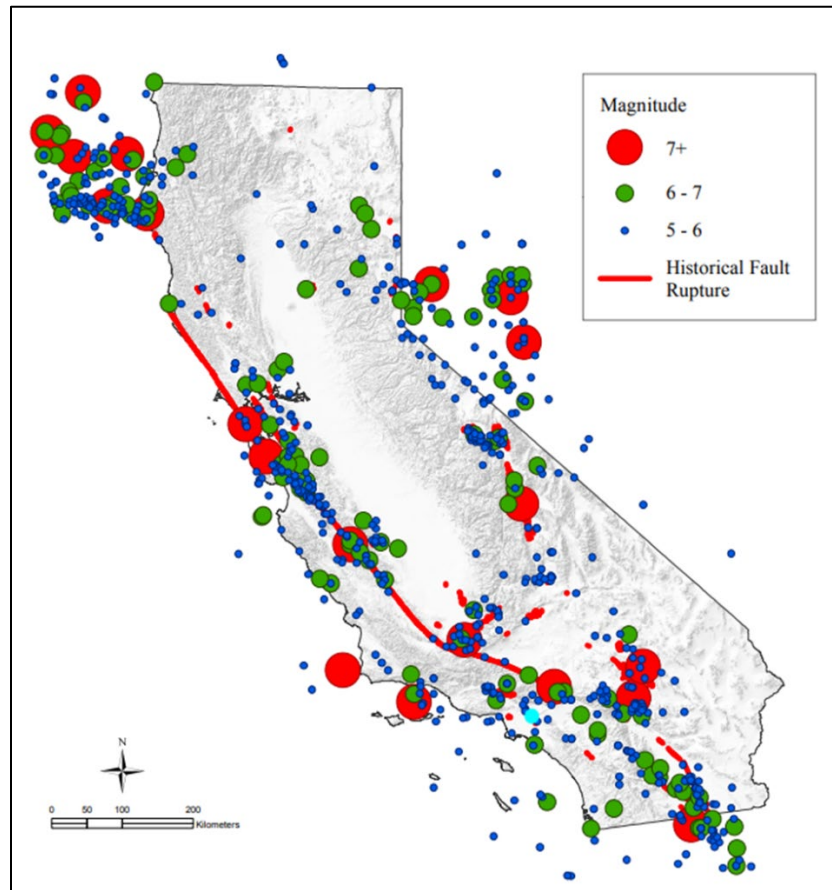
## **Landslides**

Landslides are the result of the down-slope movement of unstable hillside materials under the influence of weathering and gravity over time. Strength of rock and soil, steepness of slope, and weight of the hillside material all play an important role in the stability of hillside areas. Weathering and absorption of water can weaken slopes, while the added weight of saturated materials or overlying construction can increase the chances of slope failure. Sudden failure can be triggered by heavy rainfall, excavation of weak slopes, and earthquake shaking, among other factors.

## **A.2 Earthquake Location**

Even if the epicenter of a major earthquake is not located directly within the City, the aftershocks associated with that earthquake can cause significant damage. The hazards associated with aftershock earthquakes are the same as mainshock earthquakes and may cause significant damage and disruption. The primary difference between mainshock and aftershock earthquakes is aftershock earthquakes are categorized by the following two guidelines. First, it must occur within one rupture length of the mainshock rupture surface, or alternatively, within an "aftershock zone" based upon early aftershock activity and defined by seismologists. Second, it must occur within that designated area before the seismicity rate in that area returns to its "background", meaning pre-mainshock, level. Figure A.1, from the California Department of Conservation, details the locations and magnitudes for historic California earthquakes since 1769.

Figure A.1 California Historic Earthquake Map



Source: [California Department of Conservation Map Sheet 48: Earthquake Shaking Potential for California](#)

The Hazard Mitigation Planning Committee (HMPC) ranked earthquakes as the greatest threat to the City. According to the *Department of Conservation California Geological Survey*, the City is located in a seismic fault zone near the Newport-Inglewood Fault, Palos Verdes Fault, and Whittier Fault and is located in a high seismic risk zone.



**FAULT CLASSIFICATION COLOR CODE**  
(Indicating Recency of Movement)

Fault along which historic (last 200 years) displacement has occurred.

A triangle to the right or left of the date indicates termination point of observed surface displacement. Solid red triangle indicates known location of rupture termination point. Open black triangle indicates uncertain or estimated location of rupture termination point.

Date bracketed by triangles indicates local fault break.

No triangle by date indicates an intermediate point along faultbreak.

Fault that exhibits fault creep slippage. Hachures indicate linear extent of fault creep. Annotation (creep with leader) indicates representative locations where fault creep has been observed and recorded.

Square on fault indicates where fault creep slippage has occurred that has been triggered by an earthquake on some other fault. Date of causative earthquake indicated. Squares to right and left of date indicate terminal points between which triggered creep slippage has occurred (creep either continuous or intermittent between these end points).

Holocene fault displacement (during past 11,700 years) without historic record.

Late Quaternary fault displacement (during past 700,000 years).

Quaternary fault (age undifferentiated).

Pre-Quaternary fault (older than 1.6 million years) or fault without recognized Quaternary displacement.

## City of Lomita Hazard Mitigation Plan

### Earthquake-6



## Fault Zones

There are many faults and fault zones throughout Southern California. After reviewing maps of the United States, California and specifically the southern California area, the research resulted in earthquakes that could impact the City. Faults that were reviewed include: San Andreas, Palos Verdes, Newport-Inglewood, Whittier, and San Clemente Faults. These faults, all considered active, are capable of producing earthquakes in the 4.5 – 8+ range. This report focused on the five faults that could most seriously impact the area.

1. San Andreas Fault
2. Palos Verdes Fault
3. Newport-Inglewood Fault
4. Whittier
5. San Clemente Fault

A major earthquake along any of these five faults could result in substantial casualties and damage resulting from collapsed buildings, damaged roads and bridges, fires, flooding, and other threats to life and property. There may still be unmapped earthquake faults throughout southern California that could also affect the City. Tables A.1 through A.5 describes fault specific information from the [Southern California Earthquake Data Center](#) for local faults that could affect the City.

**Table A.1 San Andreas Fault Information**

|                                         |                                                                                                                                                |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type of fault:</b>                   | Right-lateral strike-slip                                                                                                                      |
| <b>Length:</b>                          | 1200 km                                                                                                                                        |
| <b>Nearby Communities:</b>              | Parkfield, Frazier Park, Palmdale, Wrightwood, San Bernardino, Banning, Indio                                                                  |
| <b>Last Major Rupture:</b>              | January 9, 1857 (Mojave segment); April 18, 1906 (Northern segment)                                                                            |
| <b>Slip rate:</b>                       | 20-35 mm/yr.                                                                                                                                   |
| <b>Interval Between Major Ruptures:</b> | Average of about 140 years on the Mojave segment; recurrence interval varies greatly from under 20 years (at Parkfield only) to over 300 years |

|                             |         |
|-----------------------------|---------|
| <b>Probable Magnitudes:</b> | 6.8-8.0 |
|-----------------------------|---------|

This fault marks the boundary between the North American and Pacific tectonic plates and can produce earthquakes in the magnitude 8+ range. It has been scientifically determined through a carbon dating process that a major earthquake on this fault has occurred approximately every 145 years plus or minus 20 years. The last major earthquake on the Mojave segment of the fault occurred in 1857 (159 years ago as of 2016). The San Andreas Fault is considered one of the most active faults in the world today, and a major earthquake up to an 8.3 magnitude is expected to occur again within the next 20 years. The Fault traverses the Southern California region and is located northeast of the City. The ground shaking of an 8.3 magnitude earthquake on the Southern San Andreas Fault would result in serious damage in Southern California, including the City.

**Table A.2 Palos Verdes Fault Information**

|                                         |                                                                                          |
|-----------------------------------------|------------------------------------------------------------------------------------------|
| <b>Type of fault:</b>                   | Right reverse                                                                            |
| <b>Length:</b>                          | Roughly 80 km                                                                            |
| <b>Nearby Communities:</b>              | San Pedro, Palos Verdes Estates, Torrance, Redondo Beach                                 |
| <b>Most recent surface rupture:</b>     | Holocene offshore; Late Quaternary onshore;                                              |
| <b>Slip rate:</b>                       | Between 0.1 and 3.0 mm/yr.                                                               |
| <b>Interval between major ruptures:</b> | Unknown                                                                                  |
| <b>Probable magnitudes:</b>             | 6.0 – 7.0 (or greater); fault geometries may allow only partial rupture at any one time. |

The Palos Verdes Hills Fault is capable of a 6.0-7.0 magnitude earthquake. It has two main branches and continues southward as the Palos Verdes-Coronado Bank Fault Zone. This fault is located off the coast of Huntington Beach. It starts north of Long Beach and extends south past Newport Beach where it is projected to join the Coronado Bank Fault Zone. The issue of concern is the fault causing shaking and liquefaction within the City.

**Table A.3 Newport-Inglewood Fault Information**

|                                         |                                                                                                                                      |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type of fault:</b>                   | Right lateral; local reverse slip associated with fault steps                                                                        |
| <b>Length:</b>                          | 75 km                                                                                                                                |
| <b>Nearby Communities:</b>              | Lakewood, Culver City, Inglewood, Gardena, Compton, Signal Hill, Long Beach, Seal Beach, Huntington Beach, Newport Beach, Costa Mesa |
| <b>Last Major Rupture</b>               | March 10, 1933, MW 6.4                                                                                                               |
| <b>Slip rate:</b>                       | 0.6 mm/yr.                                                                                                                           |
| <b>Interval Between Major Ruptures:</b> | Unknown                                                                                                                              |
| <b>Probable Magnitudes:</b>             | 6.0-7.4                                                                                                                              |

The Newport-Inglewood Fault is considered the second most active fault in California. It runs from the City of Inglewood through Huntington Beach and out into the Pacific Ocean near the Newport Beach area. This fault is capable of producing earthquakes in the range of 6.3 to 7.5 magnitude. The 6.5 magnitude, 1933 Long Beach earthquake occurred on the Newport-Inglewood fault causing 120 deaths and severe damage. Unreinforced masonry buildings collapsed leaving people trapped beneath the rubble.

When scientists refer to the San Andreas Fault, they often call it “The Big One.” In 1990, the Los Angeles Times newspaper did a series of articles on the Newport-Inglewood Fault and described it as “The Bigger One.” Both faults would cause considerable damage; however, a 7.5 magnitude Newport-Inglewood earthquake have a more severe impact on the City than an 8.3 on the San Andreas due to the fault’s proximity. The cost estimates of damage are much greater for the Newport-Inglewood worst-case scenario than the San Andreas worst-case scenario.

**Table A.4 Whittier Fault Information**

|                       |                                                  |
|-----------------------|--------------------------------------------------|
| <b>Type of fault:</b> | Right-lateral strike-slip with some reverse slip |
| <b>Length:</b>        | About 40 km                                      |

|                                         |                                                           |
|-----------------------------------------|-----------------------------------------------------------|
| <b>Nearby Communities:</b>              | Yorba Linda, Hacienda Heights, Whittier, Cerritos, Downey |
| <b>Most Recent Surface Rupture:</b>     | Holocene                                                  |
| <b>Slip rate:</b>                       | 2.5- 3.0 mm/yr                                            |
| <b>Interval Between Major Ruptures:</b> | Unknown                                                   |
| <b>Probable Magnitudes:</b>             | 6.0-7.2                                                   |

The Whittier Fault is a strike-slip fault located to the northeast of the City. It is part of the extensive network of faults that cross Southern California. The fault is relatively short but capable of producing moderate to large earthquakes. The most recent significant shaking occurred in 1987, with a magnitude 5.9 earthquake. Although the fault is not as active as the San Andreas Fault, it still poses a significant seismic risk to the surrounding areas, especially in the event of a larger rupture.

**Table A.5 San Clemente Fault Information**

|                                     |                                                                                                 |
|-------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Type of fault:</b>               | Right lateral and vertical offsets                                                              |
| <b>Length:</b>                      | At least 210 km; essentially continuous with the San Isidro Fault Zone, off the coast of Mexico |
| <b>Nearby Communities:</b>          | San Diego (70 km offshore) forms scarp on east side of San Clemente Island                      |
| <b>Most recent surface rupture:</b> | Holocene                                                                                        |
| <b>Slip rate:</b>                   | Roughly 1.5 mm/yr.                                                                              |

As with the Palos Verdes Fault, the San Clemente Fault is located offshore and could cause ground shaking within the City. The San Clemente Fault is part of a major offshore fault system capable of generating large-magnitude earthquakes, with estimates suggesting events up to magnitude 7.5 or greater. While more distant than other faults, its size and potential to trigger

submarine landslides or tsunamis could contribute to regional impacts. This means the City could still experience moderate to strong shaking, especially in conjunction with other fault activity.

## A.3 Earthquake Extent

The amount of energy released during an earthquake is usually expressed as a magnitude and is measured directly from the earthquake as recorded on seismographs. An earthquake's magnitude is expressed in whole numbers and decimals (e.g., 6.8). Seismologists have developed several magnitude scales. One of the first was the Richter scale, developed in 1932 by Dr. Charles F. Richter of the California Institute of Technology. The most commonly used scale today is the Moment Magnitude (Mw) Scale. Moment magnitude is related to the total area of the fault that ruptured and the amount of offset (displacement) across the fault. It is a more uniform measure of the energy released during an earthquake.

The other commonly used measure of earthquake severity is intensity. Intensity is an expression of the amount of shaking at any given location on the ground surface. In general, it decreases with distance from the source of an earthquake, but it may be increased or decreased by a number of factors.

### ***The Modified Mercalli Intensity Scale & Corresponding Richter Scale Magnitudes***

Shaking intensity is often described using the Modified Mercalli Intensity Scale which rates an earthquake's effects based on human observation. While an earthquake has only one magnitude, it may have many intensity values which will generally decrease with distance from the epicenter. Table A.6 lists the Mercalli Scale's various intensity levels.

**Table A.6 Modified Mercalli Intensity Scale**

| MERCALLI<br>INTENSITY |              | DESCRIPTION                                                                         | RICHTER SCALE<br>MAGNITUDE |
|-----------------------|--------------|-------------------------------------------------------------------------------------|----------------------------|
| I                     | Instrumental | Detected only by a seismograph                                                      |                            |
| II                    | Feeble       | Noticed by sensitive people                                                         | 0.1 to 3.4                 |
| III                   | Slight       | Like the vibrations due to a passing truck                                          | 3.5 to 4.2                 |
| IV                    | Moderate     | Felt by people while walking, rocking of loose objects, including standing vehicles | 4.3 to 4.8                 |

|      |                 |                                                                                                                                        |            |
|------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------|------------|
| V    | Rather Strong   | Felt generally; most sleepers are awakened and bells ring                                                                              | 4.3 to 4.8 |
| VI   | Strong          | Trees sway and all suspended objects swing; damage by over-turning and falling of loose objects                                        | 4.9 to 5.4 |
| VII  | Very Strong     | General alarm; walls crack; plaster falls                                                                                              | 4.9 to 5.4 |
| VIII | Destructive     | Car drivers seriously disturbed; masonry fissured; chimneys fall; poorly constructed buildings damaged                                 | 5.5 to 6.1 |
| IX   | Ruinous         | Some houses collapse where ground begins to crack, and pipes break                                                                     | 6.2 to 6.9 |
| X    | Disastrous      | Ground cracks badly; many buildings destroyed, and railway lines bent; landslides on steep slopes                                      | 7.0 to 7.3 |
| XI   | Very disastrous | Few buildings remain standing; bridges destroyed; all services (railway, pipes, and cables) out of action; great landslides and floods | 7.4 to 8.1 |
| XII  | Catastrophic    | Total Destruction; objects thrown into air; ground rises and falls in waves                                                            | 8.1 +      |

As described in the Earthquake Probability, the City has roughly a 0.04% chance of a 6.9M earthquake annually. According to Table A.6, this could result in severe shaking resulting in housing collapse, ground fissures, and possible damage to underground infrastructure.

## Amplification of Seismic Shaking

Although seismic waves radiate from their source like ripples on a pond, the radiation is not uniform due to the complex nature of an earthquake rupture, the different paths the waves follow through the Earth, and the different rock and soil layers near the Earth's surface. Large earthquakes begin to rupture at their hypocenter deep in the Earth and the fault ruptures outward from that point. Because the speed of an earthquake rupture on a fault is similar to the speed of seismic waves, waves closer to the epicenter can be compounded by waves from farther along

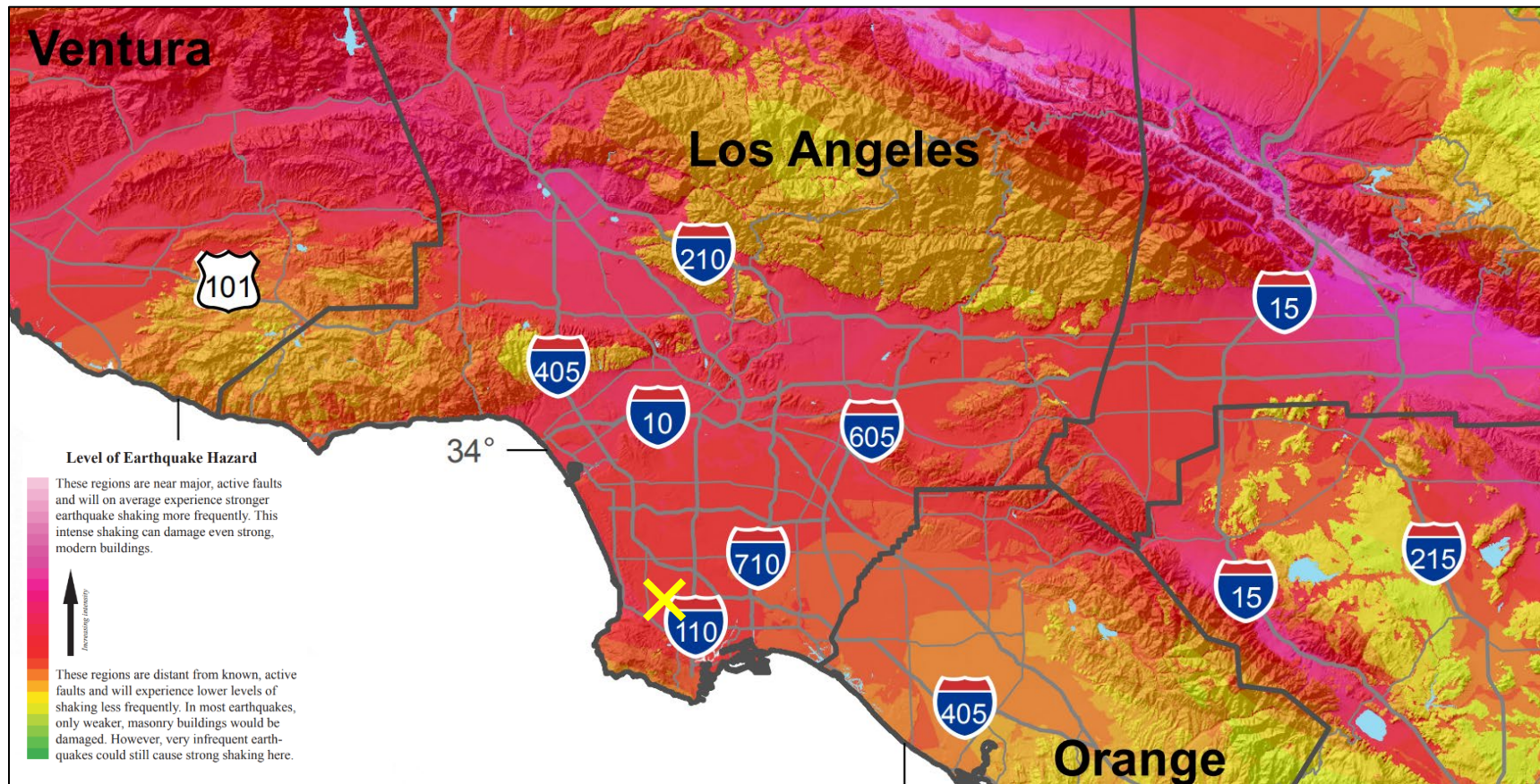
the rupture, creating a pulse of very strong seismic waves that moves along the fault in the direction of the fault rupture. Seismic waves may also be modified as they travel through the Earth's crust.

As seismic waves approach the ground surface, they commonly enter areas of loose soils where the waves travel more slowly. As the waves slow down, their amplitude increases, resulting in larger waves with frequencies that are more likely to damage structures. Waves can also be trapped within soft sediments between the ground surface and deep, hard basement rocks, their destructive energy multiplying as they bounce back and forth, producing much greater shaking at the ground surface.

Figure A.3 illustrates the relative earthquake shaking potential across Southern California, highlighting regions with elevated seismic risk. The City, marked with a yellow "X," lies within a zone of high shaking potential due to its proximity to several active fault lines.



Figure A.3 Earthquake Shaking Potential for California



Source: [California Geological Survey Map Sheet 48](#)

## A.4 Earthquake History

To indicate the potential for an earthquake event, Table A.7 lists significant recorded earthquakes in Southern California and the associated magnitudes, excerpted from the [Southern California Earthquake Data Center](#).

Table A.7 Table of Select Historical Earthquakes

| MAGNITUDE                                                                                                       | YEAR | EARTHQUAKE NAME                                 |
|-----------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------|
|  <b>MAGNITUDE 5.5 - 6.4</b>    | 1796 | LA Basin Earthquake                             |
|  <b>MAGNITUDE 6.5 TO 7.4</b>   | 1800 | San Diego Earthquake                            |
|  <b>MAGNITUDE 6.5 TO 7.4</b>   | 1812 | Wrightwood (or San Juan Capistrano) Earthquake  |
|  <b>MAGNITUDE 6.5 TO 7.4</b>   | 1812 | Santa Barbara Earthquake                        |
|  <b>MAGNITUDE 6.5 TO 7.4</b>   | 1852 | Volcano Lake Earthquake                         |
|  <b>MAGNITUDE 5.5 - 6.4</b>    | 1855 | Los Angeles Region Earthquake                   |
|  <b>MAGNITUDE &gt; 7.5</b>   | 1857 | Fort Tejon Earthquake                           |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 1858 | San Bernardino Earthquake                       |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 1862 | San Diego Earthquake                            |
|  <b>MAGNITUDE &gt; 7.5</b>   | 1872 | Owens Valley Earthquake                         |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 1881 | Parkfield Earthquake                            |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 1883 | Santa Barbara Channel Earthquake                |
|  <b>MAGNITUDE 6.5 TO 7.4</b> | 1890 | San Jacinto or Elsinore Fault Region Earthquake |
|  <b>MAGNITUDE 6.5 TO 7.4</b> | 1892 | San Jacinto or Elsinore Fault Region Earthquake |
|  <b>MAGNITUDE 6.5 TO 7.4</b> | 1892 | Laguna Salada Earthquake                        |
|  <b>MAGNITUDE &gt; 7.5</b>   | 1892 | Imperial Valley Earthquake                      |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 1899 | Cajon Pass Earthquake                           |

| <b>MAGNITUDE</b>                                                                                                | <b>YEAR</b> | <b>EARTHQUAKE NAME</b>           |
|-----------------------------------------------------------------------------------------------------------------|-------------|----------------------------------|
|  <b>MAGNITUDE 6.5 TO 7.4</b>   | 1899        | San Jacinto Earthquake           |
|  <b>MAGNITUDE 5.5 - 6.4</b>    | 1901        | Parkfield Earthquake             |
|  <b>MAGNITUDE 5.5 - 6.4</b>    | 1906        | Imperial Valley Earthquake       |
|  <b>MAGNITUDE 5.5 - 6.4</b>    | 1908        | Death Valley Region Earthquake   |
|  <b>MAGNITUDE 5.5 - 6.4</b>    | 1910        | Elsinore Earthquake              |
|  <b>MAGNITUDE 5.5 - 6.4</b>    | 1915        | Imperial Valley Earthquake       |
|  <b>MAGNITUDE 5.5 - 6.4</b>    | 1916        | South of Death Valley Earthquake |
|  <b>MAGNITUDE 6.5 TO 7.4</b>   | 1918        | San Jacinto Earthquake           |
|  <b>MAGNITUDE 5.5 - 6.4</b>    | 1922        | Parkfield Earthquake             |
|  <b>MAGNITUDE 6.5 TO 7.4</b>   | 1968        | Borrego Mountain Earthquake      |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 1970        | Lytle Creek Earthquake           |
|  <b>MAGNITUDE 6.5 TO 7.4</b> | 1971        | San Fernando (Sylmar) Earthquake |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 1973        | Point Mugu Earthquake            |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 1975        | Galway Lake Earthquake           |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 1978        | Santa Barbara Earthquake         |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 1979        | Malibu Earthquake                |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 1979        | Imperial Valley Earthquake       |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 1980        | White Wash Earthquake            |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 1982        | "Anza Gap" Earthquake            |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 1986        | North Palm Springs Earthquake    |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 1986        | Oceanside Earthquake             |

| <b>MAGNITUDE</b>                                                                                                | <b>YEAR</b> | <b>EARTHQUAKE NAME</b>                      |
|-----------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------|
|  <b>MAGNITUDE 6.5 TO 7.4</b>   | 1987        | Elmore Ranch/Superstition Hills Earthquakes |
|  <b>MAGNITUDE 5.5 - 6.4</b>    | 1987        | Whittier Narrows Earthquake                 |
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 1988        | Tejon Ranch Earthquake                      |
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 1988        | Upland Earthquake                           |
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 1988        | Pasadena Earthquake                         |
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 1989        | Malibu Earthquake                           |
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 1989        | Newport Beach Earthquake                    |
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 1989        | Montebello Earthquake                       |
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 1990        | Upland Earthquake                           |
|  <b>MAGNITUDE 5.5 - 6.4</b>    | 1991        | Sierra Madre Earthquake                     |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 1992        | Joshua Tree Earthquake                      |
|  <b>MAGNITUDE 6.5 TO 7.4</b> | 1992        | Landers Earthquake                          |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 1992        | Big Bear Earthquake                         |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 1992        | Mojave (Garlock) Earthquake                 |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 1993        | Wheeler Ridge Earthquake                    |
|  <b>MAGNITUDE 6.5 TO 7.4</b> | 1994        | Northridge Earthquake                       |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 1995        | Ridgecrest Earthquakes                      |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 1996        | Coso Earthquake                             |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 1997        | Calico Earthquake                           |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 1998        | Coso Earthquake                             |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 1998        | Crafton Hills (Redlands) Earthquake         |

| <b>MAGNITUDE</b>                                                                                                | <b>YEAR</b> | <b>EARTHQUAKE NAME</b>                     |
|-----------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------|
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 1998        | San Bernardino Earthquake                  |
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 1998        | Whiskey Springs (Big Bear City) Earthquake |
|  <b>MAGNITUDE 6.5 TO 7.4</b>   | 1999        | Hector Mine Earthquake                     |
|  <b>UNDER MAGNITUDE 4.5</b>    | 2001        | West Hollywood Earthquake                  |
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 2001        | Anza Earthquake                            |
|  <b>MAGNITUDE 5.5 - 6.4</b>    | 2002        | Laguna Salada Earthquake                   |
|  <b>MAGNITUDE 6.5 TO 7.4</b>   | 2003        | San Simeon Earthquake                      |
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 2005        | Mettler Earthquake                         |
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 2008        | Chino Hills Earthquake                     |
|  <b>MAGNITUDE 4.5 - 5.4</b>    | 2009        | Inglewood Earthquake                       |
|  <b>MAGNITUDE 5.5 - 6.4</b>  | 2009        | Baja California Earthquake                 |
|  <b>MAGNITUDE 6.5 TO 7.4</b> | 2010        | Sierra El Mayor Earthquake                 |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 2010        | Ocotillo Earthquake                        |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 2010        | Borrego Springs Earthquake                 |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 2011        | Calexico Earthquake                        |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 2012        | Brawley Earthquake                         |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 2012        | Westmoreland Earthquake                    |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 2013        | Anza Earthquake                            |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 2013        | Isla Vista Earthquake                      |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 2014        | Brea Earthquake                            |
|  <b>MAGNITUDE 4.5 - 5.4</b>  | 2014        | Running Springs Earthquake                 |



| MAGNITUDE              | YEAR | EARTHQUAKE NAME            |
|------------------------|------|----------------------------|
| ■ MAGNITUDE 4.5 - 5.4  | 2015 | Stovepipe Wells Earthquake |
| ■ MAGNITUDE 4.5 - 5.4  | 2016 | San Jacinto Earthquake     |
| ■ MAGNITUDE 4.5 - 5.4  | 2016 | Borrego Springs Earthquake |
| ■ MAGNITUDE 4.5 - 5.4  | 2018 | Santa Cruz Earthquake      |
| ■ MAGNITUDE 5.5 - 6.4  | 2019 | Ridgecrest Earthquake      |
| ■ MAGNITUDE 6.5 TO 7.4 | 2019 | Ridgecrest Earthquake      |
| ■ MAGNITUDE 5.5 - 6.4  | 2020 | Lone Pine Earthquake       |

## Southern California Historic Earthquakes

One of the best indicators of earthquake potential is learning the earthquake history of the area. The following is a discussion on large earthquakes that affected the City, which were also included in Table E.7.

### *1857 Fort Tejon Earthquake*

On January 9, 1857, one of the greatest recorded earthquakes in the U.S. occurred in Southern California. The Fort Tejon earthquake measured 7.9 on the Richter scale and left a surface rupture scar of over 350 kilometers (225 miles) along the San Andreas Fault. Strong shaking was said to have lasted for over a minute, and water from the Los Angeles River was reportedly thrown out of its bed. Damage was not nearly as serious as it would be today since Southern California was sparsely populated at the time. Were the Fort Tejon earthquake to occur today, the damage could easily run into billions of dollars, and the loss of life could be substantial. The present-day communities of Wrightwood and Palmdale lie upon or near the 1857 rupture area.

### *1933 Long Beach Earthquake*

In 1933, the Long Beach 6.4 magnitude earthquake struck the Los Angeles Basin on March 10. The earthquake occurred on the Newport-Inglewood Fault, causing serious damage in Long Beach and other communities. The earthquake resulted in 120 deaths and over \$50 million in property damage. Most of the damaged buildings were of unreinforced masonry construction. The following images of the damage were taken from the Southern California Earthquake Data Center website.

### *1971 Sylmar Earthquake (San Fernando)*



On February 9, 1971, the Los Angeles Basin shook for over one minute. There were 65 deaths and a financial cost of over \$500 million. The earthquake resulted in a crack in the Van Norman Dam where an 80-square mile area had to be evacuated due to fear the dam would break. Numerous people were trapped in buildings and fires were started from natural gas line breaks. Two hospitals collapsed killing nine people. The Veterans Administration Hospital had seven deaths (photos left), and the Olive View Hospital had two deaths. Following this earthquake, the Alquist Hospital

Seismic Act was passed establishing structural and non-structure classifications for hospital building seismic –safety levels.

### *1987 Whittier Narrows Earthquake*

In October 1987, the Whittier Narrows Earthquake struck the Los Angeles area with a 5.9 magnitude earthquake. This earthquake occurred on a fault system not previously known for seismic activity. There were 8 deaths and 200 injuries. The earthquake damage was estimated at \$358 million.

### *1994 Northridge Earthquake*

On January 17, 1994, the Northridge Earthquake struck at a 6.7 magnitude in the Los Angeles area. There were 57 deaths and over 1,500 people were injured. The earthquake caused billions of dollars in damages and disrupted the lives of thousands of residents, schools and businesses in Southern California.

For days afterward, thousands of homes and businesses were without electricity; tens of thousands had no gas; and nearly 50,000 had little or no water. According to NASA Ames Research Center, building officials inspected over 66,500 structures and determined 4,000 were severely damaged and deemed uninhabitable. An additional 11,000 buildings were moderately damaged and authorized only for limited occupancy. Several collapsed bridges and overpasses created commuter havoc on the freeway





system. In addition, ground shaking caused extensive damage and triggered liquefaction. This ignited dozens of fires throughout the area resulting in further damage.

However, the earthquake occurred early in the morning on a holiday. These circumstances considerably reduced the impact. Many collapsed buildings were unoccupied, and most businesses were not yet open. Still, the direct and indirect economic losses ran into the tens of billions.

## **State and Federal Declared Earthquake Disasters**

No federal major disaster declaration or state emergency proclamation specific to earthquakes in Los Angeles County, where the City is located, has been identified since 2019. While the City has neither had state nor federally declared earthquake disasters since the last plan update, it is important to note that other California counties have. This includes Kern and San Bernardino Counties in July of 2019 (EM-3415-CA). This earthquake event resulted in the state declaring a disaster for those counties. In addition, Humboldt County experienced an earthquake in December of 2022 (DR-4692), also resulting in the governor classifying the event as a state recognized disaster. It is crucial to recognize the history of state declared earthquake disasters in other California counties due to the fact that the planning area is set in an earthquake fault zone and can occur at any moment without warning.

## **A.5 Earthquake Probability**

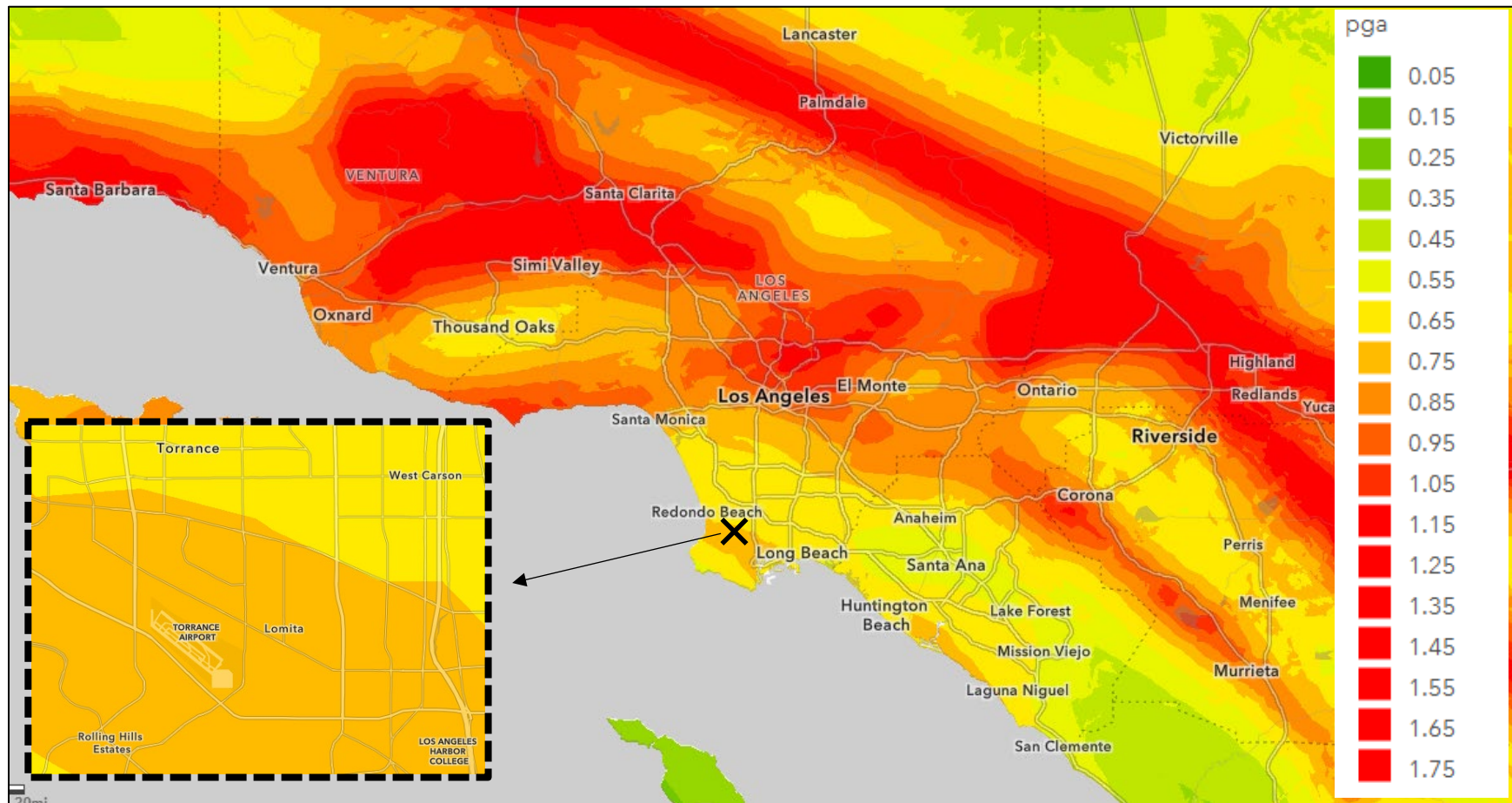
To assess the probability of a major earthquake, this report will rely on Peak Ground Acceleration (PGA). PGA mapping represents peak horizontal acceleration of the ground on firm-rock conditions. The approach of representing peak horizontal ground acceleration on firm-rock is a common and widely used method of showing ground accelerations. The development of probabilistic acceleration maps is a result of three types of basic input parameters:

- 1) Attenuation of ground shaking with distance from the earthquake source.
- 2) Frequency of earthquakes within an area or region, termed recurrence; and
- 3) The character and extent of regions and faults that generate earthquakes.

Figure A.4 shows a multi-colored Probabilistic Seismic Hazards Map illustrating the expected relative intensity of ground shaking in California from anticipated future earthquakes. The shaking potential depicted is the Peak Ground Acceleration with a 2% probability of exceedance in 50 years, equivalent to ground shaking expected roughly once every 2,500 years. The City is marked

with an “X” and is located within a region where expected PGA values range from approximately 0.65g to 0.75g, indicating a high potential for strong ground shaking during a major seismic event.

Figure A.4 Peak Ground Acceleration Map



Source: [GIS.Conservation.Ca.Gov. Peak Ground Acceleration Map](https://gis.consrv.ca.gov/arcgis/rest/services/Seismicity/MapServer)

According to Table A.8 below (provided by the [United States Geological Survey](https://www.usgs.gov/)), this PGA Value is typically associated with a 6.9 magnitude earthquake. Thus, there is a 0.04% annual possibility of a 6.9 magnitude earthquake affecting the City.

**Table A.8 Mercalli Intensity and Corresponding Peak Ground Acceleration**

| MERCALLI INTENSITY                                                                  | RICHTER INTENSITY | ACCELERATION (%G) | VELOCITY (CM/S) | PERCEIVED SHAKING | POTENTIAL DAMAGE  |
|-------------------------------------------------------------------------------------|-------------------|-------------------|-----------------|-------------------|-------------------|
|    | 3.5               | < 0.17            | < 0.1           | Not Felt          | None              |
|    | 4.2 – 4.3         | 0.17 - 1.4        | 0.1 - 1.1       | Weak              | None              |
|    | 4.8               | 1.40 – 3.9        | 1.1 - 3.4       | Light             | None              |
|    | 4.9 – 5.4         | 3.9 - 9.2         | 3.4 - 8.1       | Moderate          | Very light        |
|    | 5.5 – 6.0         | 9.2 - 18          | 8.1 - 16        | Strong            | Light             |
|    | 6.1               | 18 - 34           | 16 - 31         | Very Strong       | Moderate          |
|  | 6.2               | 34 - 65           | 31 - 60         | Severe            | Moderate to Heavy |
|  | 6.9               | 65 - 124          | 60 - 116        | Violent           | Heavy             |
|  | 7.0               | > 124             | > 116           | Extreme           | Very Heavy        |

The City has been impacted by earthquakes numerous times over the years. Typical of many locations in Southern California, seismic building standards have prevented these earthquakes from causing any severe damage within the City. However, as noted above, the potential for a large-scale earthquake is possible. Based on data the proximity of identified fault lines and the information demonstrated in the PGA maps, it is clear the whole community is at risk to the impacts of an earthquake event. Given the frequency, and likelihood, of earthquake occurrences in the area coupled with the possibility for a large-scale scenario, the City has ranked earthquakes as one of the hazards with highest vulnerability for the City. It should be noted that the HMPC determined that the impacts climate change would not have any effect on the probability of earthquake scenarios.

## A.6 Earthquake Vulnerability

### Vulnerability to Structures

A major earthquake in the region could result in widespread structural damage to key City-owned facilities, severely impacting government operations, public safety services, and the City's ability to provide shelter, resources, and support during a disaster.

As determined through the vulnerability assessment detailed in Chapter 3, the level of earthquake risk to the City's facilities varied. The Hazard Mitigation Planning Committee (HMPC) identified City Hall as being at the highest risk. Facilities considered to be at moderate risk include the Tom Rico Center, Stephenson Center, Water Maintenance Facility, Water Pump Station, and the Cypress Water Production Facility. Table A.9 below notates estimated values for vulnerability. These values are meant to demonstrate the extent of vulnerability rather than expected damage.

**Table A.9 Earthquake Loss Estimate Table**

| ASSET NAME                           | REPLACEMENT<br>VALUE | % DAMAGE | LOSS ESTIMATE |
|--------------------------------------|----------------------|----------|---------------|
| City Hall & Council<br>Chambers      | \$8,333,000          | 60%      | \$4,999,800   |
| Lomita Park- Tom Rico<br>Center      | \$4,295,000          | 35%      | \$1,503,250   |
| Lomita Park- Stephenson<br>Center    | \$1,203,000          | 35%      | \$421,050     |
| Lomita Manor Senior<br>Housing       | \$16,079,000         | 60%      | \$9,647,400   |
| Cypress Water Production<br>Facility | \$5,286,000          | 40%      | \$2,114,400   |
| Water Maintenance                    | 1,606,000            | 35%      | \$562,100     |
| Water Pump Station                   | \$1,065,000          | 40%      | \$426,000     |

Note: The values in this table are provided by a January 2024 Insurance Valuation Report completed by CBIZ Valuation Group, LLC. These values are used for planning purposes only.

To address these risks, the City developed mitigation actions aimed at reducing physical damage during a major seismic event and ensuring essential services remain operational. Mitigation Action 2025.HMP.01 calls for comprehensive seismic studies to identify structural weaknesses in City-owned facilities and implement necessary retrofits or upgrades to prevent collapse and limit service disruption. Recognizing that continuity of operations is essential during a disaster, Mitigation Action 2025.HMP.02 focuses on assessing and improving the Emergency Operations Center (EOC), including the acquisition of backup systems and essential equipment to ensure it remains functional and safe during and after an earthquake. Mitigation Action 2025.HMP.03 encourages facility awareness by seeking updated information on Board and Care facilities, which often house individuals with mobility or cognitive limitations who are especially vulnerable if a structure becomes compromised. Finally, Mitigation Action 2025.HMP.04 enhances public outreach, with an emphasis on helping residents understand how building vulnerabilities affect personal safety. These mitigation actions reflect the City's commitment to strengthening structural resilience, protecting at-risk populations, and ensuring the functionality of essential services following a disaster.

### **Vulnerability to People**

A major earthquake presents a substantial risk to the people who live and work in the City. The community is vulnerable to immediate hazards from seismic shaking, including falling debris, structural failures, utility disruptions, and injuries. These physical impacts may be compounded by secondary effects such as fires, temporary displacement, and limited access to critical services like water and medical care. Residents living in older homes or multi-family buildings constructed prior to modern seismic codes are particularly at risk of injury, entrapment, or loss of shelter if structures collapse or are severely damaged. As detailed in the City's [Housing Element](#) approximately 78.9% of all housing units in the City were built before 1980- before the major statewide seismic code upgrades implemented after the 1971 Sylmar earthquake- indicating that a large share of residents live in structures that may not meet current seismic performance standards. While more than 98% of homes were built before 2000, the pre-1980 homes are considered most vulnerable to shaking-related damage. Additionally, an estimated 4.5% of households are overcrowded, which could increase the likelihood of injuries or displacement in multi-family or higher-density homes.

Vulnerable populations, including the elderly, individuals with disabilities, and those with limited financial means, face heightened risks during and after an earthquake. These groups may have reduced mobility, fewer resources to prepare for emergencies or recover afterward, and a greater dependence on City infrastructure and services. Disruptions to the City's water system, roadways,

and power supply could also delay emergency response and isolate neighborhoods, further increasing vulnerability among these populations.

To reduce these risks, the City developed a range of mitigation actions that prioritize both physical safety and community preparedness. Mitigation Action 2025.HMP.01 involves implementing seismic studies to identify vulnerable areas across City facilities and making structural improvements where necessary, helping to reduce the risk of building collapse and ensure continuity of essential operations. Mitigation Action 2025.HMP.02 focuses on evaluating the functionality of the EOC and acquiring necessary equipment to ensure effective coordination during a disaster. This directly supports public safety by ensuring the City can maintain clear communication, make timely decisions, and deploy emergency resources efficiently when a major event occurs. A fully equipped and operational EOC enhances the City's ability to protect lives, manage response efforts, and support affected residents throughout all phases of an emergency. To better understand and support vulnerable populations, Mitigation Action 2025.HMP.03 seeks to obtain a list of Board and Care facilities in the City, helping the City tailor emergency response strategies to those most at risk. Finally, Mitigation Action 2025.HMP.04 enhances community outreach to promote participation in local and regional earthquake preparedness efforts. By increasing public awareness and encouraging proactive planning, this action helps residents understand the risks they face and the steps they can take to stay safe. Together, these actions strengthen the City's ability to protect life and safety.



# Appendix B

## Windstorm

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## B.1 Windstorm Identification and Background

Wind can be described as the flow of air caused by differences in atmospheric pressure within the Earth's atmosphere. Air naturally moves from areas of high pressure to areas of lower pressure, and the greater the difference between these two areas, the faster the air moves. When these differences are substantial, they can result in strong winds capable of causing damage to natural and built environments. Strong winds have historically been responsible for a range of impacts, from minor property damage such as broken tree limbs and displaced roof tiles to the complete destruction of large structures. In addition to physical damage, windstorms can disrupt utility services, telecommunications, and transportation networks, leading to broader community impacts.

The Beaufort Scale is widely used to describe wind speeds based on observed conditions, particularly at sea, and has been adapted for land-based assessments. Updated in the 1940s, the Beaufort Scale uses a seventeen-level system that measures wind speeds from calm conditions to winds exceeding 73 miles per hour (mph). Windstorm events typically feature airspeeds ranging from 55 mph to 72 mph, levels at which significant property damage, infrastructure disruptions, and public safety hazards can occur. Because of the destructive potential of strong winds, windstorms are a hazard of concern in many communities.

### BEAUFORT WIND SCALE

| Beaufort Number | Description                         | Wind speed                               | Wave height           | Sea conditions                                    | Land conditions                                |                                                                                       |
|-----------------|-------------------------------------|------------------------------------------|-----------------------|---------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------------------------|
| 0               | Calm                                | < 1 knot<br>< 1 mph<br>< 2 km/h          | 0 ft<br>0 m           | Sea like a mirror                                 | Smoke rises vertically                         |    |
| 1               | Light air                           | 1–3 knots<br>1–3 mph<br>2–5 km/h         | 0–1 ft<br>0–0.3 m     | Ripples                                           | Direction shown by smoke drift                 |    |
| 2               | Light breeze                        | 4–6 knots<br>4–7 mph<br>6–11 km/h        | 1–2 ft<br>0.3–0.6 m   | Small wavelets                                    | Wind felt on face                              |   |
| 3               | Gentle breeze                       | 7–10 knots<br>8–12 mph<br>12–19 km/h     | 2–4 ft<br>0.6–1.2 m   | Large wavelets                                    | Leaves and small twigs in constant motion      |  |
| 4               | Moderate breeze                     | 11–16 knots<br>13–18 mph<br>20–28 km/h   | 3.5–6 ft<br>1–2 m     | Small waves                                       | Raises dust and loose paper                    |  |
| 5               | Fresh breeze                        | 17–21 knots<br>19–24 mph<br>29–38 km/h   | 6–10 ft<br>2–3 m      | Moderate waves                                    | Small trees and leaves begin to sway           |  |
| 6               | Strong breeze                       | 22–27 knots<br>25–31 mph<br>39–49 km/h   | 9–13 ft<br>3–4 m      | Large waves                                       | Large branches in motion                       |  |
| 7               | High wind, moderate gale, near gale | 28–33 knots<br>32–38 mph<br>50–61 km/h   | 13–19 ft<br>4–5.5 m   | Sea heaps up                                      | Whole trees in motion                          |  |
| 8               | Gale, fresh gale                    | 34–40 knots<br>39–46 mph<br>62–74 km/h   | 18–25 ft<br>5.5–7.5 m | Moderately high waves                             | Twigs break off trees                          |  |
| 9               | Strong/severe gale                  | 41–47 knots<br>47–54 mph<br>75–88 km/h   | 23–32 ft<br>7–10 m    | High waves                                        | Slight structural damage                       |  |
| 10              | Storm, whole gale                   | 48–55 knots<br>55–63 mph<br>89–102 km/h  | 29–41 ft<br>9–12.5 m  | Very high waves                                   | Trees uprooted, considerable structural damage |  |
| 11              | Violent storm                       | 56–63 knots<br>64–72 mph<br>103–117 km/h | 37–52 ft<br>11.5–16 m | Exceptionally high waves                          | Widespread damage                              |  |
| 12              | Hurricane force                     | ≥ 64 knots<br>≥ 73 mph<br>≥ 118 km/h     | ≥ 46 ft<br>≥ 14 m     | Exceptionally high waves, sea is completely white | Devastation                                    |  |

Source: [What is the Beaufort Scale?](#)

## B.2 Windstorm Location

High wind events impact the entire planning area, with no areas entirely shielded from their effects. Due to the City's location in the South Bay region of Los Angeles County, the City is annually affected by strong wind events, including seasonal Santa Ana winds and localized gusts caused by shifting weather patterns across the Los Angeles Basin. Although the City is a relatively small and built-out community with minimal natural open space, its proximity to the Palos Verdes Peninsula and the nearby coast can contribute to erratic wind flows, especially during regional high wind advisories. These winds can be intensified as they pass through neighboring corridors or open roadways, impacting both residential and commercial zones.

The entire planning area is particularly susceptible to windstorms generated by Santa Ana winds, which are strong, dry downslope winds that typically occur from fall through spring. Originating in the Great Basin, these winds funnel through mountain passes and move toward the coast, gaining speed and dryness along the way. While the City is not directly situated in a canyon or mountainous area where wind speeds peak, its relatively flat topography and proximity to the Palos Verdes Hills expose it to sustained gusts that can travel across the City.

## B.3 Windstorm Extent

Windstorm intensity can vary significantly depending on atmospheric conditions. Typical wind events associated with property damage generally involve sustained winds or strong gusts exceeding 45 to 60 mph, as detailed on the Beaufort Scale. In more extreme cases, wind speeds can reach 65 mph to 72 mph. Damage from windstorms in a community like the City typically includes downed trees and branches, damaged roofs, broken windows, overturned small structures, and disrupted utility services. Heavily treed areas, mobile structures, and older buildings are particularly susceptible to wind-related impacts. Public infrastructure such as water systems, power lines, and public facilities may also experience disruption or physical damage due to falling debris or the direct force of wind gusts. Although major windstorms in the City are relatively rare, even moderate wind events can produce localized damage across the City, requiring emergency response efforts and leading to temporary utility outages, road blockages, and service interruptions.

## B.4 Windstorm History

Wind events are an annual occurrence in the City, most driven by seasonal Santa Ana winds. These strong, dry winds typically originate in the inland deserts and travel toward the coast, occurring primarily between fall and early spring. Over the years, the City has regularly

experienced the effects of these wind events, which have caused minor but consistent impacts such as downed tree limbs, damaged fencing, toppled signage, and temporary power outages due to fallen debris on above-ground utility lines. Although individual events may not always be severe, their regularity poses a persistent challenge to infrastructure and community safety.

Strong Santa Ana winds and occasional winter storms have periodically brought elevated wind speeds to the region, causing scattered damage to trees, fences, roofs, and utilities. It should be noted that federal major disaster declarations FEMA-DR-4699-CA (2023) and FEMA-DR-4856-CA (2025) were both issued for severe weather events that included straight-line winds and covered Los Angeles County. These declarations apply to the City, as it is located in Los Angeles County. No separate state-only proclamation was located for this hazard.

The cumulative impacts of these frequent wind events can affect daily operations and maintenance, particularly for older infrastructure. In addition, windstorms in the broader Los Angeles region have occasionally exacerbated other hazards, such as wildfires in nearby communities, further highlighting the importance of continued preparedness in the City.

## **B.5 Windstorm Probability**

Wind events occur regularly in the City, with the City experiencing moderate winds, particularly during the fall and winter months when Santa Ana conditions are most common. These seasonal wind events happen annually, making the probability of experiencing windstorms high on an annual basis. The Hazard Mitigation Planning Committee (HMPC) noted that high wind events are a frequent occurrence within Los Angeles County and the City, often accompanying seasonal weather systems and severe winter storms. Based on local experience and historical records, there is a 100% chance of windstorm events impacting the City on an annual basis. While most wind events are moderate in strength and cause only minor damage, the potential for more severe wind events, including gusts strong enough to down trees and power lines, exists. Though the occurrence of extreme wind events like tornadoes or other major windstorm disasters is rare, the consistent presence of Santa Ana winds ensures that windstorms remain a persistent hazard. Given this pattern, the City's probability of experiencing damaging winds each year is considered moderate to high.

## **B.6 Windstorm Vulnerability**

### **Vulnerability to Structures**

Structures within the City are generally well-built and maintained, which helps reduce overall vulnerability to windstorm damage. However, strong wind events can still pose risks to numerous

structures throughout the City. Residential properties, commercial buildings, and municipal facilities may experience roof damage, broken windows, and structural compromise to non-reinforced elements such as signage. Additionally, above-ground utility infrastructure, including power lines, is particularly susceptible to high winds, which can lead to power outages and public safety hazards. The City's dense development pattern and aging infrastructure contribute to citywide exposure, as damage to one property may have cascading effects on adjacent structures and services. Overgrown or poorly maintained trees near structures can also lead to increased risk of damage during wind events, as falling limbs may impact rooftops or power lines.

As detailed in the vulnerability assessment in Chapter 3, most of the City's facilities are considered to be at relatively moderate risk in the event of a high wind event. While the overall structural integrity of these facilities is generally sound, severe wind conditions can still cause significant impacts. Falling branches or uprooted trees may pose direct hazards to buildings, occupants, and adjacent areas, increasing the potential for property damage or personal injury. Table B.1 below notates estimated values for vulnerability. These values are meant to demonstrate the extent of vulnerability rather than expected damage.

**Table B.1 Windstorm Loss Estimate Table**

| <b>ASSET NAME</b>                 | <b>REPLACEMENT<br/>VALUE</b> | <b>% DAMAGE</b> | <b>LOSS ESTIMATE</b> |
|-----------------------------------|------------------------------|-----------------|----------------------|
| City Hall and Council Chambers    | \$8,333,000                  | 20%             | \$1,666,600          |
| Lomita Park- Tom Rico Center      | \$4,295,000                  | 20%             | \$859,000            |
| Lomita Manor Senior Housing       | \$16,079,000                 | 40%             | \$6,431,600          |
| Cypress Water Production Facility | \$5,286,000                  | 30%             | \$1,585,800          |
| Water Maintenance                 | \$1,606,000                  | 15%             | \$240,900            |

Note: The values in this table are provided by a January 2024 Insurance Valuation Report completed by CBIZ Valuation Group, LLC. These values are used for planning purposes only.

To address these concerns, the City has identified several mitigation strategies aimed at reducing the structural risks associated with windstorms. The City has developed Mitigation Action 2025.HMP.05, which calls for collaboration with Southern California Edison (SCE) to explore funding opportunities for upgrading or burying utility lines. Burying power lines significantly reduces the likelihood of wind-related outages, fires caused by downed lines, and other electrical hazards that can damage homes and businesses. Upgraded infrastructure can also improve overall service reliability and reduce the frequency and severity of post-storm restoration efforts, which is especially critical for public safety and emergency response operations.

In addition, the City has developed Mitigation Action 2025.HMP.06, which proposes the development of a tree trimming assistance program focused on reducing wind-related hazards from overgrown, dying, or poorly maintained trees on private property. Falling limbs and toppling trees are common causes of damage during high wind events, particularly to roofs, windows, fences, and power lines. This program would help mitigate these risks by providing support to property owners, especially vulnerable populations such as seniors or individuals with mobility challenges, who may lack the resources or physical ability to maintain safe landscaping. By proactively removing or trimming vegetation, the City can reduce the likelihood of debris-related structural damage and improve community wide resilience to wind hazards.

### **Vulnerability to People**

Windstorms can have significant impacts on public safety, especially during severe events involving high winds. The most vulnerable populations during windstorms include elderly individuals, young children, people with mobility issues, and those living in aging homes. In such events, these individuals may face a higher risk of injury from flying debris, downed trees, or damaged structures. Additionally, people living in mobile homes or temporary structures, which are more susceptible to high winds, may be at greater risk of being displaced or injured during a windstorm. This would impact a significant portion of the City as the City's [Housing Element](#) estimates that mobile homes account for approximately 7.3% of the housing stock in the City.

The impact of windstorms on people can also extend to the broader community, as power outages may disrupt daily life and transportation systems. Public spaces and community centers may become unsafe or unusable, making it difficult for people to access essential services during or after the event. In areas with dense vegetation, such as parks and residential zones, falling trees or branches can create additional hazards for pedestrians and motorists.

To reduce the impact on residents, the City developed mitigation action 2025.HMP.07 which aims to develop an outreach program that encourages individuals to assess their own risk to

windstorms and take proactive steps to mitigate hazards. This program will include an outreach campaign, providing a windstorm checklist and safety tips to help citizens prepare for wind events. Additionally, by focusing on tree trimming for properties that pose risks to nearby homes, the City aims to reduce hazards in residential areas, particularly for those who may need extra support.



# Appendix C

## Water Shortage

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## C.1 Water Shortage Identification and Background

Water shortages arise when the demand for water exceeds the available supply, often due to factors such as prolonged drought, population growth, or water contamination. While drought remains a key contributor to water scarcity, other challenges- including groundwater depletion, aging water systems, and climate change projections- have heightened concerns about long-term water reliability. These shortages can impact households, businesses, industries, and agriculture, leading to mandatory conservation efforts and potential risks to public health.

Water supply issues are not solely dependent on the volume of available water but also on its quality. Contamination from natural and human-made sources, including heavy metals, bacteria, and industrial or agricultural pollutants, can render water unsafe for consumption. This reduces the overall supply of potable water, forcing communities to rely on alternative sources or implement costly treatment processes. Additionally, dependence on imported water, reservoirs, or groundwater wells increases vulnerability to disruptions in supply, while aging infrastructure can lead to leaks, contamination, or system failures that further strain water availability.

As seen in climate change projections, many regions may face more frequent and prolonged dry periods, declining groundwater levels, reduced snowpack, and increased evaporation rates, all of which contribute to worsening water shortages. Addressing water shortages requires a combination of conservation measures, infrastructure improvements, and diversified water supply strategies.

## C.2 Water Shortage Location

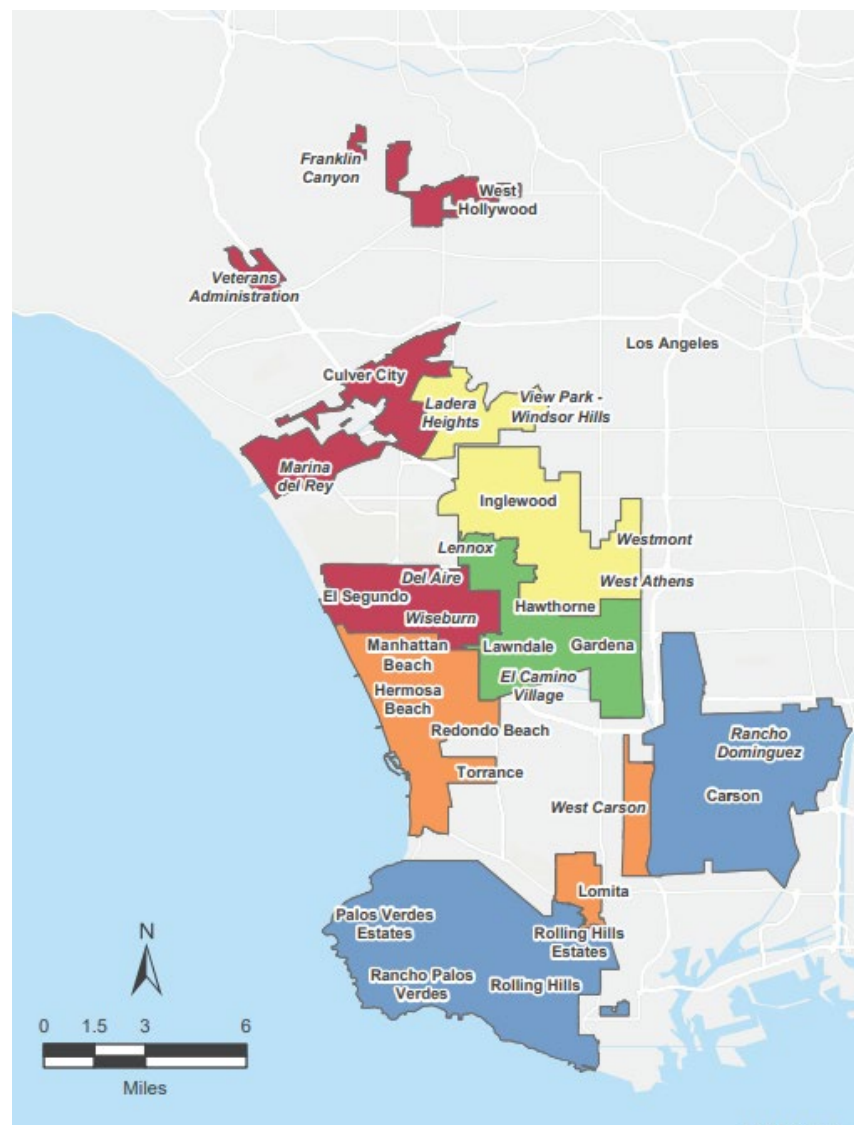
The City, located in the southern portion of Los Angeles County, spans approximately 1.97 square miles and is bordered by the City of Torrance, City of Los Angeles, Rolling Hills Estates, and Rancho Palos Verdes. Despite its relatively small size, the City has a densely populated residential and commercial water service area that is particularly vulnerable to water shortages due to its almost total reliance on imported water supplies.

Approximately 95 percent of the City's population is served by the Lomita Water Division, which manages 4,242 service connections, including 3,935 residential and 307 non-residential customers among a mix of commercial and other classification, as detailed by [Lomita Water](#). A small, hilly area in the southern portion of the City- just over 200 homes south of Via Madonna- is served by the California Water Service Company (Cal Water) due to its topographical constraints.

However, majority of the community depends on a single, unified water system overseen by the City.

Water in the City is almost entirely imported through the West Basin Municipal Water District, which purchases from the Metropolitan Water District of Southern California. The City has limited ability to draw from local groundwater and while the Cypress Water Production Facility (CWPF) is equipped to blend and treat sources, the reliability of groundwater as a backup is minimal. As a result, any disruption in the regional imported water supply, from drought restrictions to infrastructure failure, could impact the entire planning area.

**Figure C.1 West Basin Municipal Water District Service Area Map**



Source: [West Basin Municipal Water District](#)

The City's [2020 Urban Water Management Plan](#) notes that most of the City's water consumption is residential, with single-family homes accounting for approximately 70 percent of total usage. The remaining demand comes from multi-family housing, commercial and institutional facilities, and landscape irrigation. This heavy reliance on residential usage means that prolonged shortages would directly affect daily life for a large portion of the population, from basic household needs to sanitation and fire protection. Ultimately, the City's membership in the West Basin Municipal Water District supports regional planning and resiliency efforts, but the City's geographic and operational constraints mean it remains susceptible to widespread impacts from long-term water shortages. It should be noted that the Hazard Mitigation Planning Committee (HMPC) determined the entire City is at risk for water shortage and drought.

## C.3 Water Shortage Extent

The extent of a water shortage hazard in the City can range from relatively minor reductions in water use to severe, prolonged supply disruptions that affect the entire community. Because the City relies almost entirely on imported water delivered through the West Basin Municipal Water District, sourced from the State Water Project and Colorado River Aqueduct, the City is highly vulnerable to regional supply limitations caused by drought, regulatory restrictions, climate change, and infrastructure failures. This dependence leaves the City with limited flexibility during large-scale or extended shortages.

The City's [2020 Urban Water Management Plan](#) outlines a six-stage Water Shortage Contingency Plan, with potential supply reductions ranging from up to 10% (Stage 1) to more than 50% (Stage 6). As water shortages worsen, restrictions may become more stringent, potentially affecting residential irrigation, landscape maintenance, and commercial operations. Under severe conditions, essential services could be disrupted, particularly if emergency storage is depleted and regional deliveries are limited.

Adding to the risk is the City's limited access to local groundwater supplies. While the CWPF was designed to treat and blend groundwater with imported water, the City's ability to use local wells has been significantly reduced due to the detection of PFAS (per- and polyfluoroalkyl substances)- a group of human-made chemicals, often called "forever chemicals," that are resistant to degradation, linked to various health risks, and subject to evolving state and federal regulations. The presence of PFAS, including benzene and other contaminants, has forced the City to suspend groundwater extraction from its primary well, eliminating what would otherwise be a critical backup supply during a regional shortage.

As a result, the geographic and operational extent of a water shortage in the City is potentially citywide. Unlike jurisdictions with diversified water sources, the City does not have access to alternative supply sources. Any significant disruption in imported supply would affect nearly every household, business, and public facility. The duration and severity of a shortage could lead to cascading impacts on public health, sanitation, and fire suppression across the entire City.

## C.4 Water Shortage History

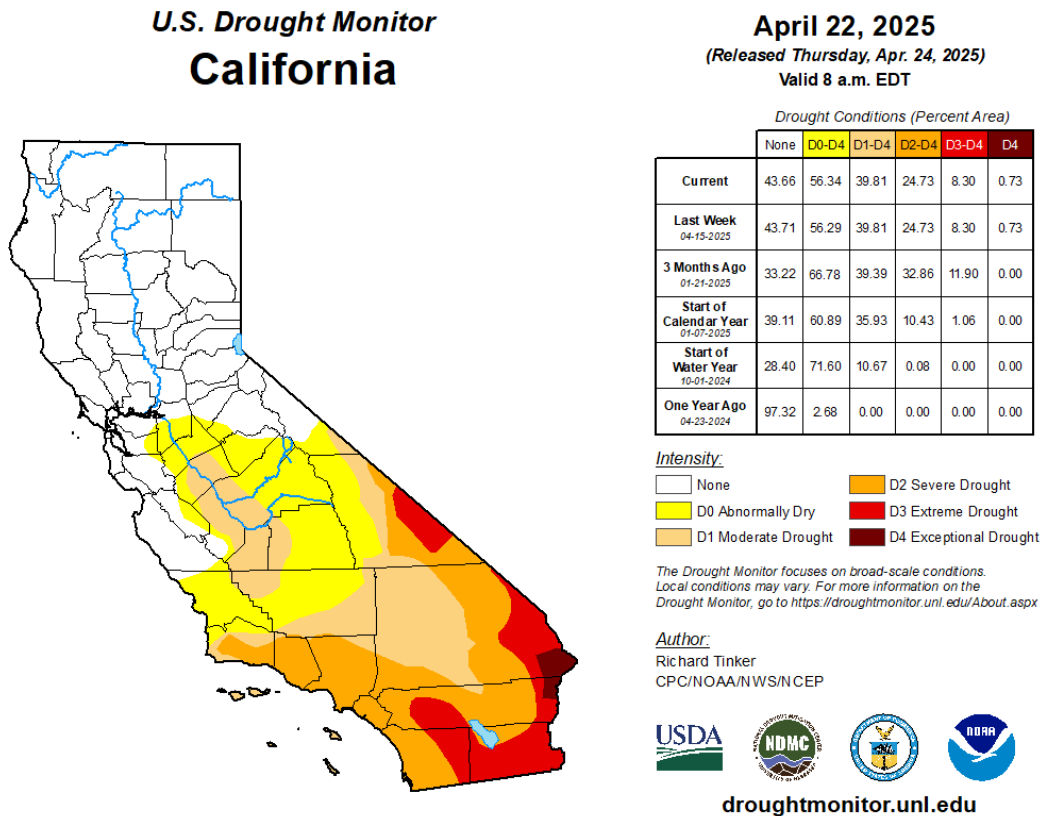
Water shortages have historically been a concern for many communities across California, including the City, due to the region's semi-arid climate and heavy reliance on imported water supplies. Periodic droughts have significantly affected water availability across Southern California, prompting local and statewide conservation measures during dry years.

California has experienced several major droughts over the past century. The drought from 1929 to 1934, though predating the City's incorporation, marked the beginning of statewide efforts to build major water infrastructure- including aqueducts, reservoirs, and groundwater management systems- that later supported urban growth in cities throughout the region. Another prolonged drought, lasting from 1987 to 1992, is considered the longest drought of the 20th century. Although urban areas like the City were less impacted than agricultural regions, this event revealed the vulnerability of communities dependent on limited or single water sources and reinforced the need for drought preparedness.

One of the most severe droughts in California's modern history occurred between 2011 and 2017. Characterized by record-low snowpack, reduced reservoir levels, and declining groundwater recharge, this drought triggered statewide emergency declarations and mandatory conservation regulations. During this time, the City, like other urban communities, was required to meet state-mandated water use reduction targets. The City implemented water conservation measures, intensified public education efforts, and participated in regional coordination to mitigate the impacts. This event led to increased investments in water efficiency, demand management, and long-term planning across the region.

The U.S. Drought Monitor provides a nationwide system for tracking drought severity, using categories ranging from "Abnormally Dry" to "Exceptional Drought." This system is used to evaluate the extent of drought across California. Figure C.2 shows the latest data from the U.S. Drought Monitor, which highlights the current drought conditions for the state of California.

Figure C.2 U.S. Drought Monitor for California



In addition to regional drought impacts, the City's [2020 Urban Water Management Plan](#) states that the City has faced local water supply challenges due to groundwater quality issues at Well No. 5. Recurring problems with iron and manganese led to the development of the CWPF to treat and blend the well water. However, in May 2019, benzene contamination was detected, prompting the City to take both the well and CWPF offline. Since then, the City has relied entirely on imported treated water from the Metropolitan Water District, and resident concerns about taste and odor have further motivated long-term water system upgrades.

On October 19, 2021, California Governor Gavin Newsom issued a [Statewide Drought Emergency Proclamation](#) due to prolonged and severe drought conditions affecting all 58 counties. Because Los Angeles County was included in this proclamation, the City was covered under this statewide declaration. No federal major disaster declarations for drought or water shortage have been issued for Los Angeles County since the last planning period

## C.5 Water Shortage Probability

The probability of future water shortages in the City is considered moderate, largely due to the City's reliance on imported water and the current lack of an active local groundwater supply. As all of the City's water is imported through the Metropolitan Water District via the West Basin Municipal Water District, the City is vulnerable to regional droughts, infrastructure disruptions, and supply limitations. Looking ahead, climate projections for Southern California indicate a likely trend toward longer and more frequent dry periods, which may further reduce the availability of imported water and increase competition for limited resources. While not the direct cause of water shortages, these projected conditions are expected to intensify existing vulnerabilities, making water shortages more likely, particularly during extended drought periods. The HMPC identified water shortage and drought as a regular event for the City, occurring approximately between once a year and once every 7 years. This corresponds to an estimated annual probability of occurrence of about 14%.

## C.6 Water Shortage Vulnerability

### Vulnerability to Structures

As detailed in the vulnerability assessment in Chapter 3, all City facilities were determined by the Hazard Mitigation Planning Committee to be at low structural risk from water shortage. While water shortages and droughts are not expected to cause physical damage to buildings, they can still result in operational disruptions, particularly if water supply or pressure is insufficient to support sanitation, cooling, or fire suppression systems. Critical facilities, including public safety buildings, schools, and healthcare sites, depend on a consistent and reliable water supply to remain operational during both routine and emergency conditions. Reduced water pressure or mandated cutbacks during a drought could compromise fire suppression systems, increasing the vulnerability of structures to fire-related damage. Additionally, residential and commercial properties may face service interruptions that affect plumbing systems, landscape maintenance, or cooling systems. As determined through the vulnerability assessment detailed in Chapter 3, City facilities were evaluated and ranked with comparatively low overall risk to account for these potential functional impacts. Table C.1 below notates estimated values for vulnerability. These values are meant to demonstrate the extent of vulnerability rather than expected damage.



**Table C.1 Water Shortage Loss Estimate Table**

| <b>ASSET NAME</b>                              | <b>REPLACEMENT<br/>VALUE</b> | <b>% DAMAGE</b> | <b>LOSS ESTIMATE</b> |
|------------------------------------------------|------------------------------|-----------------|----------------------|
| City Hall & Council Chambers                   | \$8,333,000                  | 1%              | \$83,330             |
| Lomita Park- Tom Rico Community Center and Gym | \$4,295,000                  | 1%              | \$42,950             |
| Lomita Manor Senior Housing                    | \$16,079,000                 | 1%              | \$160,790            |
| Cypress Water Production Facility              | \$5,286,000                  | 1%              | \$52,860             |
| Water Maintenance                              | \$1,606,000                  | 1%              | \$16,060             |
| Water Pump Station                             | \$1,065,000                  | 1%              | \$10,650             |

Note: The values in this table are provided by a January 2024 Insurance Valuation Report completed by CBIZ Valuation Group, LLC. These values are used for planning purposes only.

While the City's water infrastructure is generally well-maintained, its heavy reliance on imported water limits flexibility during shortages. To help reduce service disruptions and improve overall reliability, the City has developed several mitigation strategies focused on strengthening infrastructure and expanding alternative supply options. Mitigation Action 2025.HMP.08 proposes to upgrade existing water infrastructure to enhance water flow within the City and between neighboring water agencies. Improved interconnectivity and pressure management would help ensure more stable service to structures during periods of high demand or regional supply shortages. These upgrades can also support emergency operations by maintaining adequate flow for hydrants and sprinkler systems during fire events.

The City also developed Mitigation Action 2025.HMP.10, which focuses on expanding the use of reclaimed or recycled water for irrigation throughout the City. By shifting non-potable uses, such as park and median landscaping, to alternative water sources, the City can reduce the strain on its potable water system during droughts. This strategy helps protect the functionality and

appearance of landscaped areas, preserves water resources for critical needs, and enhances the City's overall water resilience.

### **Vulnerability to People**

While water shortages are not expected to cause direct physical harm, they can significantly impact the health, well-being, and daily life of the City's residents, particularly among vulnerable populations. Low-income households may be more affected by increased water costs that often accompany prolonged drought conditions. Seniors, young children, and individuals with health conditions are additionally at risk if access to clean, reliable water becomes limited, particularly during periods of extreme heat. Although PFAS contamination has not led to major service disruptions in the City, the presence of these emerging contaminants is a growing concern across the region. PFAS affects water quality rather than quantity and does not pose a risk to physical structures. However, long-term exposure may raise health concerns, particularly among vulnerable populations.

In response to these potential risks, the City has developed Mitigation Action 2025.HMP.09, which promotes the use of data analytics to better understand water consumption patterns across the community and to inform targeted public education and outreach. By localized data, the City can engage residents more effectively on how to reduce water use and become more resilient during periods of shortage. These efforts can help prevent unintentional overuse, support conservation goals, and ensure that vulnerable populations receive the information and resources they need.

# Appendix D

## Urban Fire

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## D.1 Urban Fire Identification and Background

Fire is a rapid oxidation process that can lead to uncontrolled burning, exposing and possibly consuming structures. Fires often spread quickly and are usually signaled by dense smoke that may fill the area for miles around. Fires can be human-caused through acts of arson or can be caused by natural events such as lightning. Fires are typically classified according to the following categories:

- **Urban fires** are primarily those associated with structures and the activities in and around them.
- **Wildland fires** occur in forests or other generally uninhabited areas and are fueled primarily by natural vegetation.
- **Urban Interface fires** occur where development and forest interface, with both vegetation and structures providing fuel, and are sometimes referred to as urban-wildland interface fires.



The following factors contribute significantly to aforementioned fire behavior.

- **Slope/Topography:** As slope increases the rate of fire spread increases. In the northern hemisphere, south facing slopes are also subject to greater solar radiation, making them drier and thereby intensifying fire behavior.
- **Fuel:** Weight and volume are the two methods of classifying fuel, with volume also referred to as fuel loading. Each fuel is assigned a burn index (the estimated amount of potential energy released during a fire), an estimate of the effort required to contain a fire, and an expected flame length.
- **Weather:** Variations in weather conditions have a significant effect on the occurrence and behavior of fires.

Firestorms that occur during extreme weather (e.g., high temperatures, low humidity, and high winds) have high intensity, which makes fire suppression virtually impossible. These events typically burn until the conditions change, or the fuel is exhausted. Even small fires can threaten lives and resources and destroy properties. It is also important to note that, in addition to affecting

people, fires may severely affect livestock and pets. Such events may require the emergency watering/feeding, shelter, evacuation, and even burying of animals.

### **Fire Secondary Events**

The aftermath of a fire can be as disastrous, if not more so, than the fire. A particularly destructive fire burns away plants and trees that prevent erosion. If heavy rains occur after such a fire, landslides, ash flows, and flash floods can occur. This can result in property damage outside the immediate fire area, and can affect the water quality of streams, rivers, and lakes.

### **Fire as a Secondary Event**

In addition to typical ignition sources for fires, earthquakes and floods have the potential to rupture buried gas lines, and high winds or accidents could cause overhead electric lines to break, creating ignition sources for fires. Catastrophic earthquakes could cause widespread urban fires, as multiple gas and electrical lines could be broken or disrupted.

## **D.2 Urban Fire Location**

The hazard of urban fire affects the entire City, as the City's dense built environment increases the vulnerability to fire incidents. Due to the residential, commercial, and public spaces within the city, urban fires can spread quickly across neighborhoods and may involve multiple buildings simultaneously. The City is largely characterized by developed urban spaces, with limited areas of open land. As such, the city's infrastructure, including public buildings, residential areas, commercial areas, and parks, are all at risk from urban fires. These areas are concentrated and connected by major roads, which could potentially serve as fire corridors in the event of large-scale fire outbreaks.

Key locations of concern include neighborhoods with higher housing density, such as those along Narbonne Avenue, Cypress Street, and Pacific Coast Highway. These areas have a concentration of multi-family residential units, commercial buildings, and mixed-use properties, which could facilitate the rapid spread of fire due to their proximity and shared walls. Additionally, the presence of small industrial operations near the city's borders and along major corridors adds another layer of risk, as these facilities and transportation routes may store or transport flammable materials.

Another vulnerability lies in residential neighborhoods with limited access, such as cul-de-sacs or communities with only one way in and out. These configurations can create dangerous bottlenecks during evacuation or emergency response, particularly if streets become obstructed or impassable due to fire, debris, or damaged infrastructure. In a fast-moving urban fire, these access limitations can delay emergency services and increase the risk to residents.

## D.3 Urban Fire Extent



Source: [FOX 11 Los Angeles](#)

Urban fires can have a range of impacts, depending on factors such as weather conditions, the availability of fire suppression resources, and the size of the fire. If high winds are present, they could drive the fire through multiple structures in a very short amount of time. Given the city's dense development and limited open space, the spread of fire could be worsened by the close proximity of buildings and combustible materials.

Development in urban areas often features buildings which are situated closely together, increasing the potential for fire to spread quickly from one structure to another.

Fires in densely populated urban environments can also be made worse by limited access to water resources, inadequate firefighting infrastructure, and the time it takes to mobilize emergency responders. The city's infrastructure, including essential utilities like water supply and electricity, could be severely impacted. Fires affecting key facilities, such as water pump stations or maintenance yards, could interrupt critical services and slow the recovery process. Public spaces, recreational facilities, and commercial areas would also be at risk, especially if they are not equipped with fire suppression systems or are difficult to access by firefighting teams due to overcrowded roads or other challenges.

There is marked potential for an urban fire to escalate quickly, especially if a fire ignites in one of the city's densely populated areas, such as those near commercial centers or industrial areas along Lomita Boulevard. A fire in an industrial area, for instance, could involve hazardous materials and cause not only property damage but also health risks to nearby residents and workers. Furthermore, fires in densely populated areas, such could lead to significant loss of life, injuries, and mass evacuations if escape routes become blocked or if the fire spreads uncontrollably.

In short, the extent of an urban fire in the City could be significant, affecting the city's residential, commercial, and public properties, as well as essential infrastructure. The rapid spread of fire could have long-term impacts on public health and safety.

## D.4 Urban Fire History

Urban fire hazards in the region are often linked to dense development patterns, aging infrastructure, and human activity. While much public attention focuses on wildfires in the hillsides and forested areas, structural fires in urban neighborhoods, such as the City, can be just as damaging, particularly in communities where buildings are closely spaced. Fires caused by electrical faults, cooking accidents, industrial malfunctions, or arson can quickly spread in residential and commercial districts, overwhelming local resources and endangering lives. Recent incidents throughout Los Angeles County demonstrate the ongoing risk posed by urban fire in highly built environments.

### Pico Rivera Apartment Fire (2018)

Around 4 p.m. on February 22, 2018, a fire was reported for an apartment building in the 9100 block of Burke Street. [ABC7 Los Angeles](#) reported that the fire, which started on the third floor of the structure, quickly engulfed the first and second floors. Fortunately, only 3 injuries were reported, but around 300 residents were displaced after more than 141 units were impacted by the fire: 45 of them with fire and smoke damage. More than



100 firefighters were dispatched to fight the flames while City officials worked with property owners to provide hotel vouchers for displaced residents. Due to the need for critical repairs, residents could not begin to return home for at least 3 to 5 days after the fire. Although specifics were not provided to the public, in the aftermath, the Los Angeles County Sheriff's Department stated that investigators believed a problem with the building's plumbing caused the fire. Pico Rivera is less than 15 miles from Lomita.

### Lomita Apartment Complex Fire (2024)

On March 30, 2024, a significant fire erupted in the Vista Verde Condominium complex on Palos Verdes Drive in Lomita, California. The blaze quickly spread to multiple floors, impacting 14 units in the building. Firefighters from multiple agencies, including Los Angeles County Fire Department, responded to the scene and were able to bring the fire under control after several hours. As detailed by [ABC7 Los Angeles](#), approximately 30 residents were displaced, and temporary shelters were set up in coordination with city officials to provide emergency housing and support services. Although no fatalities were reported, several individuals sustained minor



injuries, and the fire highlighted the risks posed by densely populated residential buildings in urban areas. The incident also emphasized the importance of fire safety education, building inspections, and timely response efforts to mitigate such events in the future.

### **Eaton Fire (2025)**

The Eaton Fire, which ignited in Altadena in January 2025, serves as a stark example of how wildland fires can transition into highly destructive urban fire events. Fueled by extreme Santa Ana winds and prolonged dry conditions, the fire rapidly spread from the wildland-urban interface into densely developed neighborhoods. The blaze destroyed 9,414 structures and damaged an additional 1,074 buildings, including residences, commercial properties, and other critical infrastructure, as reported by [CAL FIRE](#). Tragically, 18 civilian lives were lost, and 9 firefighters sustained injuries during response efforts. Although the fire originated in a more natural landscape, its most catastrophic impacts occurred in urbanized areas, where dense development, aging infrastructure, and minimal defensible space allowed the flames to leap quickly from building to building, overwhelming containment efforts and amplifying the devastation.

### **Palisades Fire (2025)**

The Palisades Fire, which ignited on January 7, 2025, in the Santa Monica Mountains, rapidly evolved into one of Los Angeles' most destructive wildfires. Propelled by extreme Santa Ana winds and prolonged drought conditions, the fire swiftly descended into the urban neighborhoods of Pacific Palisades, Topanga, and Malibu. Over its 24-day duration, the blaze scorched approximately 23,713 acres and destroyed 6,837 structures, including homes, schools, churches, and cultural landmarks. Notable structures lost included the Community United Methodist Church of Pacific Palisades and the Los Angeles Public Library's Palisades Branch. Educational institutions such as Palisades Elementary and Marquez Elementary Schools were also destroyed, while Palisades Charter High School suffered significant damage. The fire claimed 12 lives and injured several others, highlighting the severe threat wildfires pose to urban communities. The Palisades Fire underscores the increasing risk of wildfires encroaching upon densely populated urban areas, exacerbated by climate change and expanding development into wildland-urban interfaces.

## **D.5 Urban Fire Probability**

The probability of a significant urban fire occurring in the City is considered low, but not negligible. Although such events are relatively rare, urban fires remain a plausible hazard due to the City's mix of residential, commercial, and multifamily structures, as well as aging infrastructure that may

be more prone to ignition sources such as electrical failures or human error. Although the City has fire prevention and response measures in place, the potential for future urban fires cannot be entirely eliminated. In 2024, an apartment complex fire within the City underscored this possibility and demonstrated that, even with strong safety protocols, structural fires can still occur and cause significant disruption. Additionally, past wildfires and urban fires across Southern California, though not directly within the City, have demonstrated how quickly such incidents can escalate under the right conditions.

## D.6 Urban Fire Vulnerability

### Vulnerability to Structures

The City is largely developed and includes a mix of residential, commercial, and multifamily structures. While many buildings have been constructed or upgraded to meet modern fire and building codes, some older structures may still lack key fire-resistant features, making them more susceptible to damage in the event of an urban fire. Densely developed areas, especially those with limited spacing between buildings or shared walls, are at greater risk for fire spread once ignition occurs. Although the City has robust fire prevention capabilities, including code enforcement and regular inspections, the potential for structural loss remains, particularly in areas with aging infrastructure or high occupancy.

As determined through the vulnerability assessment detailed in Chapter 3, most of the City's facilities were considered to be at low to moderate risk from urban fires. However, the Hazard Mitigation Planning Committee (HMPC) identified a few facilities, specifically City Hall, the Tom Rico Center, and the Stephenson Center, as having slightly elevated vulnerability. Table D.1 below notates estimated values for vulnerability. These values are meant to demonstrate the extent of vulnerability rather than expected damage.

**Table D.1 Urban Fire Loss Estimate Table**

| ASSET NAME                      | REPLACEMENT<br>VALUE | % DAMAGE | LOSS ESTIMATE |
|---------------------------------|----------------------|----------|---------------|
| City Hall & Council<br>Chambers | \$8,333,000          | 35%      | \$2,916,550   |

|                                                      |              |     |             |
|------------------------------------------------------|--------------|-----|-------------|
| Lomita Park- Tom Rico<br>Community Center and<br>Gym | \$4,295,000  | 25% | \$1,073,750 |
| Lomita Park- Stephenson<br>Center                    | \$1,203,000  | 25% | \$240,600   |
| Lomita Manor Senior<br>Housing                       | \$16,079,000 | 35% | \$5,627,650 |

Note: The values in this table are provided by a January 2024 Insurance Valuation Report completed by CBIZ Valuation Group, LLC. These values are used for planning purposes only.

To reduce these vulnerabilities, the City has included Mitigation Strategy 2024.HMP.11, which focuses on installing fire suppression and fire detection equipment within City facilities. This proactive approach aims to protect essential structures, ensuring they remain operational during emergencies and minimizing potential damage caused by urban fires.

### **Vulnerability to People**

Urban fire poses serious risks to the health, safety, and well-being of the City's residents. While the City maintains fire prevention programs and has effective response services in place, the impacts of an urban fire can extend well beyond the immediate emergency. Residents may be exposed to injuries during a fire, especially in high-density buildings where fires can spread quickly and evacuation may be more difficult.

The City's residents, particularly vulnerable populations such as seniors, individuals with disabilities, and low-income renters, face heightened challenges during and after an urban fire event. These groups may struggle with timely evacuation, understanding or receiving emergency notifications, or accessing critical resources. Many residents live in older rental units that may lack modern fire suppression systems or accessible exits, compounding risk during a structural fire. Public feedback gathered during the planning process highlighted a common concern which was the long-term displacement that often follows an urban fire. Residents expressed that, while life safety is a key issue, the larger concern is what happens afterward- specifically the loss of affordable housing. Because many tenants benefit from lower rents tied to building age or long-term occupancy, a fire that leads to rebuilding often results in dramatically higher rental costs, effectively pricing them out of their homes.

While housing affordability and rebuilding decisions fall largely outside of the City's direct jurisdiction, the City responded to these concerns by developing Mitigation Action 2025.HMP.13.

This action focuses on creating an outreach program to educate residents about the resources available to support recovery after a fire. These include promoting the importance of renter's insurance and sharing information about assistance offered by organizations such as the American Red Cross. By increasing public awareness and access to post-disaster support, the City aims to help residents more effectively navigate the recovery process and regain stability after an urban fire.

# Appendix E

## Flood

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## E.1 Flood Identification and Background

According to the [National Flood Insurance Program](#) (NFIP), flood is the most common type of disaster including both man made and naturally occurring incidents in the United States. Land along rivers, streams, lakeshores, and coastlines are particularly susceptible to flooding.

The primary responsibility of the local governments during widespread flooding is to protect public safety. The second responsibility is protection of the environment followed by property such as highways, streets, bridges, and structure protection.

### What are Floods?

A flood occurs any time a body of water rises to cover what is usually dry land. Floods have many causes, including heavy rains, spring snowmelt, coastal storms, and dam or levee failure. When flooding occurs, affected areas may sustain damage to structures and personal property, as well as severe damage to the environment in the form of soil erosion, deforestation and damage to utilities and transportation systems.

Floods can take several minutes, hours, or even days to develop. The following flood characterization designates the amount of time for response.

- **Flood Watch** – a flood is possible in the area.
- **Flood Warning** – flooding is already occurring or will occur soon in the area.
- **Flash Flood Watch** – a flash flood is possible in the area. Those affected should seek immediate shelter or higher ground.
- **Flash Flood Warning** – flooding is already occurring or will occur soon in the area. Flash floods can occur without warning, during heavy rain in mountainous regions ensure that precautions and flash flood warnings are adhered to.

### Alluvial Fan Flooding

Alluvial fan flooding occurs in the steep arid or semiarid mountains found throughout California. Alluvial fans are fan-shaped deposits of eroded rock and soil carried out of mountains and into valley floors by landslides, mudslides, mudflows, and surface runoff. At the beginning of the valley, alluvial fans are steep and narrow with boulders and other coarse material. The deposited material becomes increasingly fine as the gradient decreases and the material, mainly gravel, sand and mud, spreads.

When rain falls, runoff from the canyon walls flows as a high-velocity sheet that channels into rivulets, and then to natural drainage courses. The rapidly moving water often carries large boulders and other material from the watershed depositing them into runoff channels, blocking the flow of water. Floodwater then spills out onto the fan, with each event finding a new channel that soon fills up with deposits and overflows. Flooding in alluvial fans often can cause greater damage than clear-water flooding.

### **Flash Flooding**

A flash flood is a rapid flooding of low-lying areas, rivers and streams that is caused by the intense rainfall associated with a thunderstorm or multiple thunderstorms. Flash floods also occur when a man-made structure, such as a dam, collapses. Flash flooding occurs when the ground under a storm becomes saturated with water so quickly that it cannot be absorbed. The runoff collects in low-lying areas and flows rapidly downhill. As a result, anything in its path is suddenly in rising water. Typically, flash floods begin with a slow-moving thunderstorm. A slow-moving thunderstorm usually takes longer to move out of the affected areas and causes the area to endure a greater amount of rainfall for a longer period of time. In addition, a thunderstorm may pass over an affected area repeatedly, dumping even more rainfall.

The heavy rainfall associated with these storm systems contributes to urban flooding in a number of ways. Primarily, heavy rainfall will often overwhelm the capacity of the conventional drainage system made up of storm drains, catch basins, sewers, and additional natural mechanisms for storm-water management. These systems typically cannot handle more than one or two inches of rainfall per hour before they begin to back up and overflow. This amount is further diminished if the storm drains, and other components of the storm-water management system, have not been adequately maintained, are clogged with debris such as trash or natural waste, or are old and in a state of disrepair. Heavy rainfall, combined with storm-water runoff, can cause local waterways to rise and overflow their banks.

## **E.2 Flood Location**

Flooding in the City can occur in multiple locations, particularly during periods of heavy rainfall or intense storm events. While FEMA has not designated any part of the City as a Special Flood Hazard Area (SFHA), flooding may still impact various parts of the community due to localized factors. In fact, flooding has the potential to occur in any area of the City, especially where site-specific conditions contribute to increased runoff or reduced drainage effectiveness.



Localized flooding is more commonly observed in low-lying roadways, intersections, and older neighborhoods with limited or aging storm drain infrastructure. The Hazard Mitigation Planning Committee (HMPC) noted that street flooding and overwhelmed storm drains have historically posed challenges in certain parts of the City, particularly during back-to-back storms or when rainfall exceeds normal seasonal levels. These areas are not mapped as high-risk zones by FEMA but are still vulnerable to short-term ponding, debris blockages, and excessive surface runoff. Flooding can also impact essential services and critical infrastructure throughout the City, including public safety, transportation access, and emergency response capabilities. Although no specific locations are consistently affected, areas with older infrastructure or limited slope may be more prone to standing water or slow drainage following major rain events.

The City continues to monitor and assess areas of concern through routine maintenance and capital improvement projects aimed at enhancing local stormwater management. While flooding risk is not concentrated in a single area, it remains a Citywide concern.

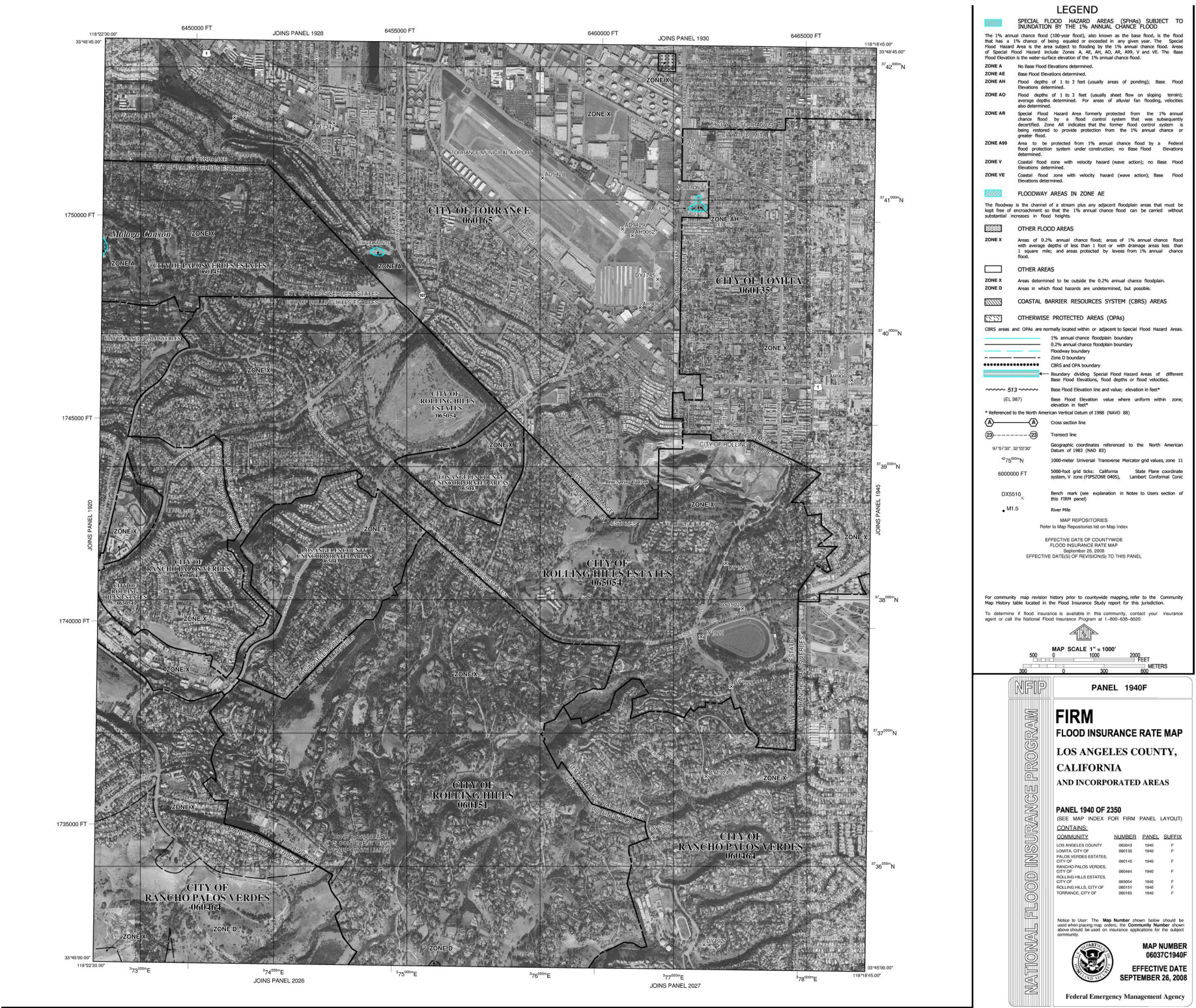
## E.3 Flood Extent

A flood event in the City can range from minor street-level flooding that temporarily limits access to residential areas and businesses, to more severe scenarios where multiple properties experience significant water intrusion and infrastructure damage. Flooding in the City has the potential to impact residential and commercial properties, public parks, and critical utility systems. Even localized flooding can result in considerable disruption and costly damage.

The extent of flooding in the City varies based on the intensity and duration of a given storm event. In moderate conditions, intersections and roadways with limited drainage may accumulate one to two feet of standing water, creating hazards for pedestrians and vehicles. In more extreme events, such as those associated with atmospheric rivers or back-to-back winter storms, water levels may rise rapidly and lead to flash flooding. These high-intensity storms can temporarily flood entire blocks, damage roadways, and affect critical infrastructure such as electrical systems and emergency response services. In addition, power outages and flooded utility infrastructure can increase the hazard's reach and duration. According to the most current [FEMA Flood Insurance Rate Maps \(FIRM\)](#), the entire City is located within Zone X (unshaded), which is designated as an area of minimal flood hazard. This means that the City is not within a 100-year or 500-year floodplain as defined by FEMA. Despite the low overall flood risk, localized flooding can still occur due to intense rainfall, blocked storm drains, or limited drainage capacity. These localized flood risks highlight the importance of continued stormwater system maintenance, infrastructure improvements, and public awareness efforts to reduce potential impacts.



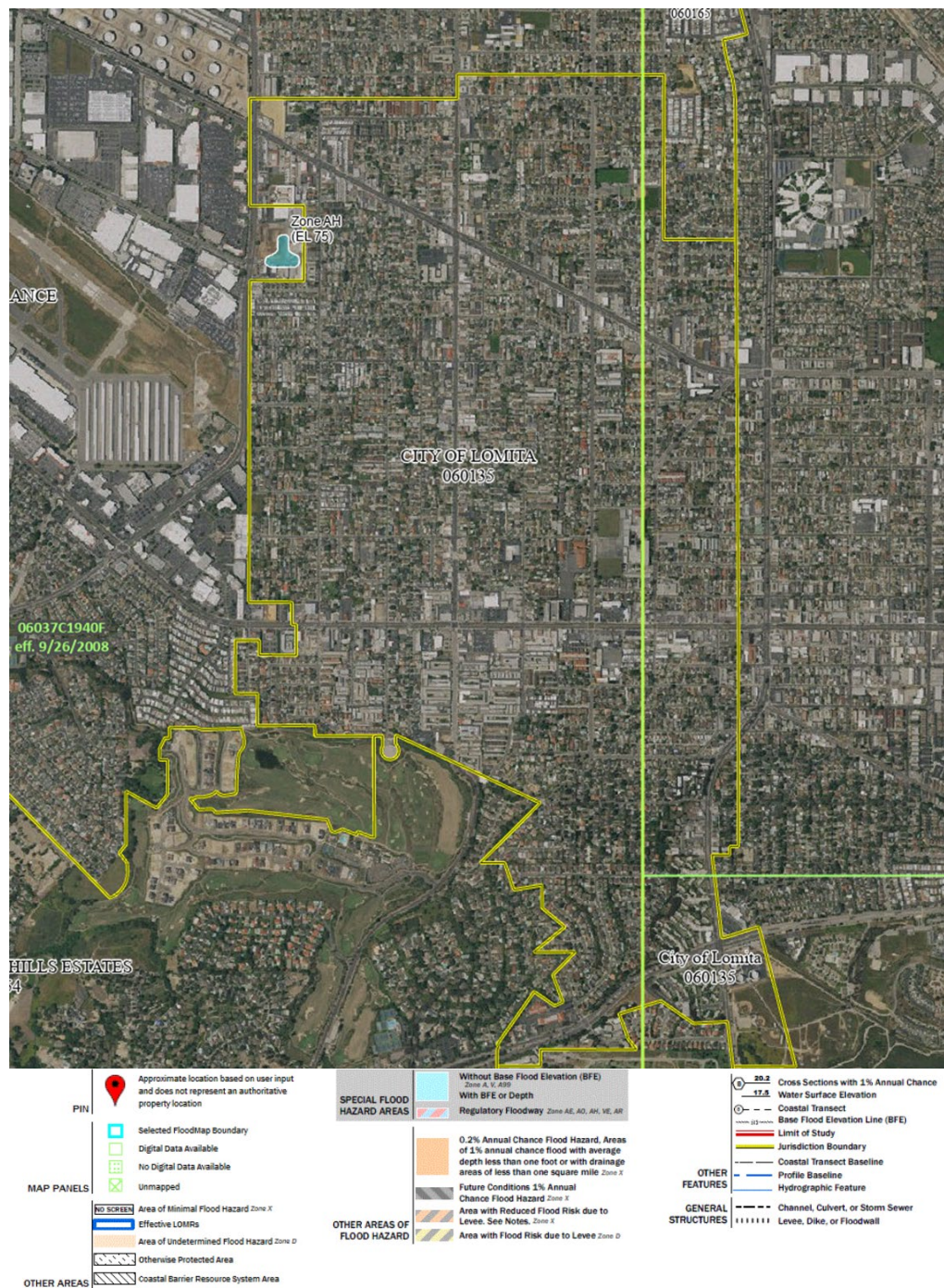
Figure E.1 Lomita FEMA Flood Insurance Rate Map



Source: [Flood Maps | FEMA.gov](#)



Figure E.2 National Flood Hazard Layer for City of Lomita



Source: [FEMA National Flood Hazard Layer \(NFHL\) Viewer](#)

## E.4 Flood History

The City of Lomita has not experienced any major flood events or significant damage due to flooding since the last hazard mitigation planning cycle. However, the potential for future flooding remains a concern given changing climate conditions and the possibility of extreme weather events. Over the years, both state and federally declared disasters have highlighted the significant impacts of flooding on life, property, and infrastructure. These declarations provide critical assistance and resources for response and recovery efforts. The table below lists flood-related disaster declarations taken from [FEMA's Website for Disasters and Decalations](#), and the [California Franchise Tax Board](#), along with their respective disaster codes, offering an overview of past events that have shaped mitigation and preparedness efforts.

**Table E.1 Disaster Declarations**

| DISASTER CODE        | INCIDENT PERIOD       |
|----------------------|-----------------------|
| EM-3591-CA           | 01/08/2023-1/31/2023  |
| EM-3592-CA           | 03/09/2023-07/10/2023 |
| DR-4683-CA           | 12/27/2022-01/31/2023 |
| DR-4699-CA           | 02/21/2023-07/10/2023 |
| CA Disaster Loss 109 | 02/2024-02/2019       |
| CA Disaster Loss 127 | 12/2021               |
| CA Disaster Loss 135 | 09/2022               |
| CA Disaster Loss 141 | 02/2023 & 03/2023     |
| CA Disaster Loss 142 | 08/2023               |
| CA Disaster Loss 146 | 02/2024               |
| Ca Disaster Loss 147 | 03/2024               |

## E.5 Flood Probability

The probability of flooding in the City is expected to increase as a result of future conditions, including climate change projections and evolving weather patterns. Climate models project that Southern California will experience more frequent and intense rainfall events due to the increased prevalence of atmospheric rivers and shifting storm dynamics. Warmer temperatures associated with climate change can increase the atmosphere's capacity to hold moisture, leading to heavier precipitation during storms. These conditions may increase the risk of flooding in areas with poor drainage. Long-term weather patterns, such as prolonged droughts followed by heavy rainfall, could further exacerbate the risk. Currently, the City is not anticipating any changes to land use in the near future to mitigation flood vulnerability, but the City is cognizant that considerations may be necessary in the distant future if climate change predictions are correct. The combination of these factors suggests that the probability of flooding in the City may rise over the coming decades.

## E.6 Flood Vulnerability

### **Vulnerability to Structures**

As detailed in the vulnerability assessment in Chapter 3, the HMPC identified that most City facilities are at comparatively low risk from flooding. The entire City is located within FEMA-designated Zone X (unshaded), which represents areas outside the SFHA and generally indicates minimal flood risk. The HMPC noted that Lomita Manor Senior Housing is at heightened risk due to localized flooding and drainage issues during heavy storms. However, most assessed City facilities were assigned a uniform damage percentage to reflect a consistent, low likelihood of significant structural damage. While these facilities are not expected to experience major impacts during typical storm events, they may still be subject to minor flooding, service disruptions, or reduced accessibility during more intense or prolonged precipitation events. Table E.3 below notates estimated values for vulnerability. These values are meant to demonstrate the extent of vulnerability rather than expected damage.

Table E.2 Flood Loss Estimate Table

| ASSET NAME                                           | REPLACEMENT<br>VALUE | % DAMAGE | LOSS ESTIMATE |
|------------------------------------------------------|----------------------|----------|---------------|
| City Hall & Council<br>Chambers                      | \$8,333,000          | 5%       | \$416,650     |
| Lomita Park- Tom Rico<br>Community Center and<br>Gym | \$4,295,000          | 5%       | \$214,750     |
| Lomita Park- Stephenson<br>Center                    | \$1,203,000          | 5%       | \$60,150      |
| Lomita Manor Senior<br>Housing                       | \$16,079,000         | 15%      | \$2,411,850   |
| Water Maintenance                                    | \$1,606,000          | 5%       | \$80,300      |

Note: The values in this table are provided by a January 2024 Insurance Valuation Report completed by CBIZ Valuation Group, LLC. These values are used for planning purposes only.

### Vulnerability to People

Recognizing the potential impacts of flooding on residents- particularly older adults residing at Lomita Manor Senior Housing, individuals with limited mobility, and those with access or functional needs- the City has identified Mitigation Action 2025.HMP.14 to improve public outreach during high precipitation events. This action aims to increase community awareness of available services such as sandbags, Dial-A-Ride transportation for those who may need evacuation or assistance, Meals on Wheels for seniors and individuals who may have difficulty preparing or accessing food during storms, and CERT (Community Emergency Response Team) assistance. By ensuring residents are informed and connected to these resources, the City can help reduce the vulnerability of people who may be disproportionately affected by flooding-related hazards. This proactive approach enhances life safety and supports continuity of care during extreme weather conditions.



## E.7 National Flood Insurance Program Compliance

The National Flood Insurance Program (NFIP) is a Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the Federal Government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the Federal Government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods. The following table illustrates the City's participation in the program:

**Table E.3 NFIP Participation**

| <i>Agency</i>              | <i>CID</i> | <i>County</i>  | <i>Init FHBM<br/>Identified</i> | <i>Init FIRM<br/>Identified</i> | <i>Curr Eff<br/>Map Date</i> | <i>Reg-Emer<br/>Date</i> |
|----------------------------|------------|----------------|---------------------------------|---------------------------------|------------------------------|--------------------------|
| <i>Lomita,<br/>City of</i> | 060135F    | Los<br>Angeles | 06/28/74                        | 09/26/08                        | NSFHA                        | 6/03/78                  |

### **Floodplain Management**

The City participates in the NFIP and has been in standing since June 3, 1978 (CID 060135F). The City does not currently have any areas designated as Special Flood Hazard Areas (SFHAs) according to the latest FEMA FIRM, which classifies the entire City as Zone X (unshaded) and notes the community as NSFHA (No Special Flood Hazard Area). Despite this designation, the City remains proactive in managing potential flood risks through local ordinance and permitting practices.

Floodplain management responsibilities are assigned to the Community and Economic Development Director, who serves as the Floodplain Administrator, as outlined in Section 10-10.12 of the [Lomita Municipal Code](#). The Floodplain Administrator is responsible for implementing and enforcing local floodplain regulations, including reviewing permit applications to ensure developments are reasonably safe from flooding, verifying compliance with state and federal



requirements, utilizing available base flood data, and coordinating notifications to FEMA and other agencies in the event of changes to watercourses or corporate boundaries (Sec. 10-10.13).

Although the City does not currently have mapped SFHAs, the City has adopted floodplain regulations to ensure future readiness. These include standards for construction that require flood-resistant materials, anchoring to prevent flotation, and proper placement of utilities to minimize flood-related damage (Sec. 10-10.14). The City also enforces standards for subdivisions and utilities that ensure proper drainage and protect infrastructure from potential flood hazards (Secs. 10-10.15 and 10-10.16). For more information, floodplain management policies are listed in Chapter 10-10 of the Lomita Municipal Code, which supports the City's continued compliance with NFIP expectations.

### **Repetitive and Severe Repetitive Loss Properties/ Flood Recommendations**

There were no properties identified as repetitive loss, severe repetitive losses or assets impacted by regular flooding. This is consistent with the City's NSFHA designation and overall Zone X (unshaded) classification, which indicates areas of minimal flood risk. According to the FEMA website, areas of this designation are expected to have minimal flood incidents and are outside the 500-year flood level. However, the absence of mapped high-risk zones does not eliminate the potential for localized flooding.

The City remains committed to mitigating flood risk, particularly in areas that may experience localized flooding during heavy rainfall. While infrastructure improvements remain a long-term consideration, the City recognizes that public awareness and preparedness are immediate and impactful strategies for reducing flood-related impacts. Mitigation Action 2025.HMP.14 focuses on enhancing public outreach to ensure residents are informed about available resources during high precipitation events. By prioritizing communication and community engagement, the City supports public safety and strengthens overall flood resilience. Infrastructure evaluations and drainage improvements may continue to be addressed through future planning initiatives or capital improvement projects as needs are identified.

# Appendix F

## Hazardous Materials Release

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## F.1 Hazardous Materials Release Identification and Background

A hazardous material is any substances that can pose a significant risk to the general population if released. These substances may be highly toxic, reactive, corrosive, flammable, radioactive or infectious. They are present in nearly every community in the United States, where they may be manufactured, used, stored, transported, or disposed. Because of their nearly ubiquitous presence, there are hundreds of hazardous material release events annually that contaminate air, soil, and groundwater resources, potentially triggering millions of dollars in clean-up costs, human and wildlife injuries, and occasionally cause human deaths.

Accidents which result in chemical clouds or release of hazardous materials into public water or sewer systems may affect outlying neighborhoods or the community at large. Depending upon the scale of the release, large segments of the residential and the business populations may need to be evacuated quickly for extended periods of time. Effective emergency planning with regard to hazardous materials, therefore, requires the concentrated efforts of emergency responders as well as other public safety officials and private organizations. Hazardous material releases may occur from any of the following:



### **Fixed-Site Release**

Includes all releases involving the production and manufacturing, handling, and storage of a hazardous product at a single facility as well as any releases that may occur at a designated hazardous waste disposal site.

### **Transportation Release**

Includes all releases that occur while the product is in transit from one facility to another or enroute to be disposed of at a designated hazardous waste disposal site, of which the main concerns for the City are the I-405 and I-110 freeways.

### **Intentional Spills and Releases**

Includes all criminal acts and acts of terrorism in which a hazardous material is used to intentionally cause injuries and/or fatalities, damage the environment and/or property, or advance

a political or social agenda. Terrorism and Weapons of Mass Destruction will be discussed in further detail in the Adversarial Events section of this document.

In response to concerns over the environmental and safety hazards posed by the storage and handling of toxic chemicals, Congress passed the Emergency Planning and Community Right to Know Act (EPCRA) in 1986. To reduce the likelihood of hazardous material releases, EPCRA established specific requirements on federal, state, and local governments, Indian tribes, and industry to plan for hazardous materials emergencies. EPCRA's Community Right-to-Know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. States and communities working with facilities can use the information to improve chemical safety and protect public health and the environment. Under EPCRA, hazardous materials must be reported to the Environmental Protection Agency (EPA), even if they do not result in human exposure. Hazardous material releases may include the following:

- Air emissions (e.g., pressure relief valves, smokestacks, broken pipes, water, or ground emissions with vapors)
- Discharges into bodies of water (e.g., outflows to sewers, spills on land, water runoff, contaminated groundwater)
- Discharges onto land
- Solid waste disposals in onsite landfills
- Transfer of wastewater to public sewage plants
- Transfers of waste to offsite facilities for treatment or storage

In addition to human-caused events, natural hazards may cause the release of hazardous materials and complicate response activities. The impact of earthquakes may be particularly damaging to facilities due to loss of structural integrity or failure of containment facilities. The threat of any hazardous material event may be magnified due to restricted access, reduced fire suppression and spill containment, and even complete cut-off of emergency response personnel and equipment.

In recognition of the dangers associated with keeping hazardous substances, the California State legislature has enacted several laws regulating the use and transport of identified hazardous materials. In particular, Chapter 6.95 of the Health and Safety Code requires all businesses using these materials to inform local government agencies of the materials and quantities stored on site. This disclosure enables emergency response agencies to respond quickly and appropriately

to accidents involving dangerous substances. Chapter 6.95 of the California Health and Safety Code, and Title 19 of the California Code of Regulation, describes the requirements for chemical disclosure, business emergency plans, and community right to know programs. According to these state requirements, a business that uses or handles hazardous materials in amounts equal to or greater than 55 gallons, 500 pounds or 200 cubic feet at any one time must prepare a business emergency plan and chemical inventory. The inventory must be updated annually, and the business plan every two years. The chapter also has incorporated certain requirements from Federal Superfund Amendments and Reauthorization Act (SARA) Title III for chemicals designated as acutely hazardous. These regulations apply to industrial accidents, refinery explosions and incidences of high-volume releases.

## **F.2 Hazardous Materials Release Location**

The City faces elevated risk of hazardous material releases due to its proximity to oil and gas infrastructure, industrial facilities, active railroad lines on Sepulveda Avenue and Western Avenue, and high-traffic transportation corridors. Although the City is relatively small and primarily residential, it is surrounded by heavily industrialized areas, including major oil refineries and fuel storage sites located in neighboring communities such as Torrance, Carson, and Wilmington. These facilities store and process large quantities of volatile substances, increasing the potential for chemical spills, toxic releases, and fire incidents that could impact surrounding jurisdictions, including the City.

Within the City itself, the risk is heightened by the presence of major roadways used for the transportation of hazardous materials. Key corridors in the region such as Western Avenue, Pacific Coast Highway (PCH), and Lomita Boulevard serve as roads for commercial trucks that may be carrying flammable, corrosive, or otherwise dangerous substances. These roadways run directly through or alongside residential neighborhoods and commercial zones, placing large portions of the population within potential impact zones should an incident occur.

The City also lies within a dense urban network of oil pipelines and utility infrastructure that service the greater South Bay region. Any disruption or failure within this network, whether accidental or as a result of natural hazards like earthquakes, could lead to a hazardous materials emergency.

Vulnerable land uses within the City include schools, parks, healthcare facilities, and dense residential areas located adjacent to key transportation corridors. The compact nature of the City means that a hazardous materials incident in or near its borders could have widespread and immediate consequences. The mix of nearby industrial facilities, frequent transport of hazardous

materials, and the City's location within a larger metropolitan area increases the City's exposure to hazardous materials incidents and highlights the need for preparedness.

## **F.3 Hazardous Materials Release Extent**

The extent of a hazardous materials release in the City would depend on several factors, including the type and volume of the substance, the location of the incident, and environmental conditions such as wind speed and direction. Hazardous substances have the potential to cause fires, explosions, or release of toxic fumes, especially if released in densely populated or poorly ventilated areas.

Given the City's proximity to oil refineries, fuel storage facilities, and pipeline infrastructure in neighboring communities, a release outside of the City's borders could still affect residents, particularly if wind carries toxic vapors or smoke into the area. Within the City, heavily traveled roadways are regularly used by trucks transporting hazardous materials. An accident on or near these corridors- especially close to homes, schools, or public buildings- could trigger localized evacuations, shelter-in-place orders, or prolonged road closures. The City's compact urban layout, limited open space, and aging infrastructure increase the risk that a hazardous material release could quickly disrupt large portions of the community. Water, sewer, and utility systems could be compromised during a release, limiting access to essential services. A large-scale event could also have ripple effects beyond the City's borders, especially given its proximity to major transportation routes and nearby industrial operations.

The severity of any incident would largely depend on the effectiveness and speed of emergency response. However, the combination of frequent hazardous material transport, local oil and gas activity, and regional interconnectivity means that a significant release could have widespread health, environmental, and economic consequences for the City.

## **F.4 Hazardous Materials Release History**

While the City has not experienced a recent large-scale hazardous materials release within its jurisdiction, the surrounding South Bay region has seen multiple hazmat-related incidents over the years, highlighting the area's ongoing vulnerability. Past events involving chemical leaks, fuel spills, and industrial fires in adjacent communities serve as important reminders of the potential for regional hazmat threats to impact the City.

## **2010 San Bruno Pipeline Explosion**

On September 9, 2010, a 30-inch steel natural gas transmission pipeline owned by Pacific Gas and Electric (PG&E) ruptured in a residential neighborhood in San Bruno, California. The rupture released approximately 47.6 million standard cubic feet of natural gas. The released gas then ignited, resulting in an explosion and fire that killed 8, injured 60, and forced the evacuation of many more people. The fire also caused substantial property damage, destroying 38 homes, and damaging 70 homes. The rupture created a crater 72 feet long by 26 feet wide in the middle of the street. The ruptured pipe segment was 28 feet long, weighed approximately 3,000 pounds, and was found 100 feet from the crater. An investigation was immediately conducted by the National Transportation Safety Board (NTSB). A review of PG&E records revealed that the pipeline had been labeled in PG&E drawings as seamless API 5L Grade X42 pipe. However, upon examination of the ruptured pipe segment, the NTSB found that it was actually constructed of smaller segments of pipe of unknown origin welded together. The NTSB concluded that the poorly welded pipe section had a visible seam weld flaw that grew over time. As a result, the pipe was not as strong as the listed API 5L Grade X42 steel pipe and ruptured under increased pressure during electrical maintenance at the Milpitas Terminal 5727

## **2012 Richmond Refinery Fire**

On August 6, 2012, a piping segment at the Number 4 Crude Unit at a Chevron refinery in Richmond, California, failed, leading to a release of hydrocarbons. The hydrocarbon vapor cloud then ignited, resulting in a large, uncontrolled fire. The fire burned for several hours before being contained later that night. Fortunately, there were no fatalities from the fire. According to the final investigation report completed by the United States Chemical Safety and Hazard Investigation Board, over 15,000 residents surrounding the refinery sought medical treatment for respiratory irritation. The incident tied up many local emergency response agencies and also shut down local service for the Bay Area Rapid Transit (BART). Although the 2012 Richmond Refinery Fire did not impact the City, the incident illustrates the potential major impacts to residential areas that a release of this magnitude could have on the City.

## **F.5 Hazardous Materials Release Probability**

The probability of a hazardous materials release in the City is considered low to moderate due to the City's proximity to industrial facilities, transportation corridors, and the presence of oil and gas infrastructure in the surrounding region. The City is situated near major highways such as Pacific Coast Highway (PCH) and Western Avenue, which are heavily trafficked by commercial vehicles,



including those carrying hazardous materials. These travel corridors increase the likelihood of hazardous material incidents occurring, particularly in the event of accidents, spills, or collisions.

Additionally, the nearby Torrance Refinery and other oil and gas facilities in the region contribute to the potential for hazardous materials releases. While industrial facilities typically have safety measures in place to prevent accidents, the dense urban environment and the proximity to critical infrastructure like homes, schools, and community centers in the City heighten the risk of exposure in the event of a release.

Although hazardous materials releases are relatively rare, the combination of the City's location near major transportation routes and industrial facilities means that the City remains susceptible to such incidents. The probability of a release may be low under normal conditions, but given the potential for accidents involving hazardous material transport and nearby facilities, there is an ongoing need for preparedness and mitigation strategies to protect public health and safety.

## **F.6 Hazardous Materials Release Vulnerability**

### **Vulnerability to Structures**

While hazardous materials releases typically do not result in widespread structural damage, they can significantly disrupt the functionality, safety, and accessibility of buildings and infrastructure. Public facilities and critical infrastructure located near major transportation corridors are particularly vulnerable to the effects of a hazardous materials release. A spill, leak, or airborne chemical release in these areas could result in temporary closures, contamination, or evacuation of nearby structures, including City buildings, commercial establishments, and schools.

As determined through the vulnerability assessment detailed in Chapter 3, all of the City's facilities are considered to be at a moderately low risk in the event of a hazardous materials release. However, it should be noted that structures located near Western Avenue or Lomita Boulevard may be more exposed to temporary closures or service disruptions if a hazardous materials release occurs nearby. While these impacts may not cause physical damage, they could require temporary evacuation, environmental testing, or delayed access to essential services. The vulnerability of structures in the City is therefore best understood in terms of potential service interruption, contamination risks, and the challenges of maintaining operations in the aftermath of a hazardous materials incident, rather than through direct physical damage. Table F.1 below notates estimated values for vulnerability. These values are meant to demonstrate the extent of vulnerability rather than expected damage.

**Table F.1 Hazardous Materials Release Loss Estimate Table**

| <b>ASSET NAME</b>                              | <b>REPLACEMENT<br/>VALUE</b> | <b>% DAMAGE</b> | <b>LOSS ESTIMATE</b> |
|------------------------------------------------|------------------------------|-----------------|----------------------|
| City Hall & Council Chambers                   | \$8,333,000                  | 7%              | \$583,310            |
| Lomita Park- Tom Rico Community Center and Gym | \$4,295,000                  | 7%              | \$300,650            |
| Lomita Manor Senior Housing                    | \$16,079,000                 | 7%              | \$1,125,530          |
| Water Maintenance                              | \$1,606,000                  | 7%              | \$112,420            |

Note: The values in this table are provided by a January 2024 Insurance Valuation Report completed by CBIZ Valuation Group, LLC. These values are used for planning purposes only.

To address these risks, the City developed Mitigation Action 2025.HMP.15, which calls for collaboration with the Public Safety and Traffic Commission to include considerations for hazardous materials releases in new agenda items related to traffic and safety improvements. This action recognizes that hazardous material risks in the City are linked to transportation corridors where hazardous materials are regularly moved. By formally integrating hazardous material risk into the planning and review of traffic projects, the City can better identify areas where additional safeguards, such as improved signage or protective infrastructure, may be warranted. This approach helps reduce the potential for incidents, protects critical facilities and nearby residents, and strengthens the City's overall emergency preparedness.

### **Vulnerability to People**

The vulnerability of City residents during a hazardous materials release is influenced by several factors, including proximity to transportation corridors, population density, and the City's capacity for timely response. Residents who live or work near major routes may face higher risk of exposure due to the frequent transport of hazardous materials along roads. In the event of a release, contact with toxic substances can lead to serious health effects, including respiratory distress, chemical burns, or long-term illness, depending on the type and concentration of the material involved.

Vulnerable populations in the City may experience greater difficulty protecting themselves in such emergencies. Children, seniors, individuals with disabilities, and residents with limited English proficiency may struggle to understand emergency instructions, evacuate safely, or access medical care. These challenges are especially concerning in areas with limited access points or dense housing, where emergency response could be delayed. Public facilities such as schools, senior living centers (Lomita Manor Senior Housing), and community spaces located near transportation routes are particularly at risk of requiring evacuation or shelter-in-place orders in the event of a release.

To address these concerns, the City developed Mitigation Action 2025.HMP.16, which focuses on providing public safety information related to Shelter-in-Place procedures and Dig Alert (811-Underground Public Utility Location). By disseminating targeted safety information, the City aims to improve resident awareness of how to minimize exposure and respond to secondary hazards.

# Appendix G

## Aircraft Incident

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## **G.1 Aircraft Incident Identification and Background**

Aircraft incidents, including crashes, mid-air collisions, and other aviation-related emergencies, present a potential risk to communities located beneath flight paths, especially those near airports. While these incidents are rare, their consequences can be severe, particularly in densely populated areas. Cities situated near busy airports or major air traffic routes may face an increased likelihood of exposure to such risks due to the frequent low-altitude flyovers of both small private aircraft and larger commercial planes.

The vulnerability of residential neighborhoods near airports is heightened by the concentration of people, infrastructure, and critical services in these areas. In the event of an aircraft-related emergency, the potential impacts could include significant property damage, loss of life, and widespread disruptions to daily activities. Areas with limited access points may also face additional challenges during evacuations or emergency responses, further increasing the risks.

Although the occurrence of aircraft incidents is rare, the possibility remains a serious concern. The presence of flight paths over urban and residential areas highlights the potential dangers, as even a small incident could have far-reaching consequences. Communities located beneath these flight paths must remain aware of the risks and continue to prepare for the possibility of an aircraft-related emergency.

## **G.2 Aircraft Incident Location**

The City is located within close proximity to several major airports and established flight paths, making it susceptible to potential aircraft-related incidents. The most significant facility nearby is Los Angeles International Airport (LAX), one of the busiest airports in the country, which generates substantial commercial air traffic over the South Bay region. In addition, Long Beach Airport (LGB) and Torrance Municipal Airport (Zamperini Field) also contribute to local air traffic, including general aviation, cargo flights, and private aircraft.

Due to the City's location within these overlapping air traffic zones, it lies beneath or adjacent to multiple low-altitude flight paths. Although the likelihood of a large-scale aviation disaster is low, the possibility of an in-flight emergency, mechanical failure, or small aircraft crash landing cannot be entirely ruled out. Aircraft traveling to or from Torrance Municipal Airport often pass over or near the City, increasing the potential risk from low-flying planes during takeoff or landing operations. Areas most at risk from an aircraft incident include the City's residential zones,

schools, and key public facilities that are located directly beneath known flight paths. Residential areas at higher risk for an aircraft incident during takeoff or landing include homes on the east side of the city, particularly along Pennsylvania Avenue and Cypress Street. Additionally, given the compact and densely developed nature of the City, an aircraft incident could have significant localized impacts.

## **G.3 Aircraft Incident Extent**

The extent of an aircraft incident in the City would depend on the type and size of the aircraft involved, the location of the crash or emergency landing, and surrounding environmental and structural conditions. While large commercial aircraft incidents are less likely given the City's distance from major runways, smaller aircraft from Torrance Municipal Airport (Zamperini Field) frequently fly at lower altitudes over or near the City, posing a more plausible risk scenario.

A small aircraft crash could impact a single residential block, causing direct structural damage, fires, or localized casualties, particularly if fuel ignites on impact. In contrast, an incident involving a larger aircraft, though less likely, could affect a wider area, potentially resulting in mass casualties, multiple structure fires, and significant infrastructure disruption. Even a non-crash emergency, such as a falling aircraft part, could lead to localized health risks or damage to homes, vehicles, or utilities.

Due to the City's compact size, dense residential layout, and the presence of critical facilities such as schools, senior centers, and emergency services located underneath flight paths, even a small-scale aircraft incident could have serious consequences. In addition to direct damage, secondary impacts would likely compound the event's severity. Fires, explosions, or hazardous material releases resulting from a crash could spread quickly to surrounding areas, threatening residents and emergency responders. Such incidents could also damage critical infrastructure, including power lines, water systems, and roadways- delaying recovery efforts and creating significant public health and safety concerns. Disruptions to utilities and transportation routes would further hinder emergency response operations, potentially escalating the overall scale of the disaster.

## **G.4 Aircraft Incident History**

While the City itself has not experienced a significant aircraft incident in recent history, its location beneath a busy flight path presents an ongoing potential hazard. Aircraft traveling to and from nearby airports pass over the city regularly, creating the possibility-however rare-of an accident impacting the community. Nearby cities, unfortunately, have experienced firsthand the devastating consequences of aircraft incidents.

## **1986 Cerritos Air Disaster**

One of the most tragic and notable events occurred in Cerritos in 1986. On August 31, 1986, Aeromexico DC-9 Flight 498 collided with a single-engine Piper Archer at 6,500 feet above the City at about 11:52 AM. The collision sent the smaller airplane into an empty playground at Cerritos Elementary School while the larger DC-9 crashed into a residential neighborhood at Holmes Avenue and Reva Circle. All 67 of the passengers and crew aboard each of the aircraft, along with 15 residents on the ground, died in the aftermath with an



additional eight injured. The collision also caused catastrophic damage to a residential neighborhood, destroying several homes. This event serves as a sobering reminder of the potential risks associated with urban areas located beneath busy flight paths. Although the City has been fortunate to avoid such incidents, its proximity to heavily trafficked airspace and its dense urban environment amplify the importance of preparedness and mitigation efforts. The concentration of residential neighborhoods, public facilities, and essential infrastructure beneath the flight path means that even a low-probability event could have severe consequences.

## **2025 San Diego Cessna Citation II Crash**

On May 22, 2025, a Cessna Citation II jet crashed into the Murphy Canyon neighborhood of San Diego, California, while attempting to land at Montgomery-Gibbs Executive Airport within dense fog and low visibility. All six individuals on board were killed, and eight people on the ground sustained injuries. The crash ignited fires that destroyed one home, damaged at least ten others, and forced the evacuation of many residents. The incident caused widespread disruption in the surrounding community, including temporary displacement, utility outages, and trauma for residents who witnessed or were directly affected by the crash. Emergency responders were quickly mobilized, but the event strained local resources and highlighted the vulnerability of densely populated neighborhoods located beneath active flight paths.

Although the City has been fortunate to avoid such incidents, its proximity to heavily trafficked airspace and its dense urban environment amplify the importance of preparedness and mitigation efforts. The concentration of residential neighborhoods, public facilities, and essential



infrastructure beneath the flight path means that even a low-probability event could have severe consequences.

### **2019 Torrance Shopping Center Cessna 177 Crash**

In September of 2019, a single-engine Cessna 177 crashed shortly after taking off from Torrance Municipal Airport. At approximately 12:15 PM, the aircraft came down under unknown circumstances onto the roof of the Rolling Hills Plaza shopping center along the 25300 block of Crenshaw Boulevard. Two people were on board: one person died, and the other sustained critical injuries and was transported to a hospital. No injuries were reported on the ground, but the plane came to rest on the roof of a hair salon, partially dangling over the building's edge. Businesses in the center, including restaurants and retail spaces, were evacuated as a precaution. The proximity of the crash to a densely populated commercial center highlights the risks associated with small aircraft operations near the City. This incident highlights how quickly a routine flight can become a public safety emergency, with potential consequences for nearby businesses, employees, and customers.

### **2024 Hawthorne Piper Comanche Crash**

In September of 2024, a small single-engine Piper Comanche crashed while attempting to land at Hawthorne Airport. At approximately 1:00 AM, the aircraft went down along the 4400 block of El Segundo Boulevard, about one mile from the runway. The plane caught fire upon impact, critically injuring both the pilot and passenger, who were the only occupants. Bystanders, including a nearby resident charging his electric vehicle, rushed to assist and helped pull one of the victims from the wreckage before emergency responders extinguished the flames. Fortunately, no buildings were damaged, and no injuries occurred on the ground. Although the incident was contained to the immediate crash site, it illustrates the dangers of aviation accidents in densely developed areas, including the City. The close proximity of homes, businesses, and transportation corridors to regional airports means even a single aircraft malfunction can pose significant risks to surrounding communities.

## **G.5 Aircraft Incident Probability**

The probability of an aircraft incident occurring in the City is considered low, but the potential consequences make it a high-impact hazard. While the City is not located adjacent to a major commercial airport, it lies beneath several flight paths associated with nearby aviation facilities, including Torrance Municipal Airport, Long Beach Airport, and Los Angeles International Airport.

These airports support a mix of general aviation, commercial, and cargo flights that pass over or near the City on a regular basis.

The majority of aircraft flying over the City are at relatively high altitudes. However, planes operating from Torrance Municipal Airport often travel at lower altitudes, increasing the chance of pilot error leading to an incident near or within the City. Though large commercial aircraft crashes are extremely rare, smaller aircraft crashes, while still uncommon, have occurred in neighboring communities and remain a plausible risk, particularly during takeoff or landing operations.

Aircraft accidents involving urban areas are infrequent but not unprecedented, particularly when combined with adverse weather, equipment failure, or navigational errors. Given the City's compact, densely populated environment, even a low-probability aircraft incident could have serious consequences.

## **G.6 Aircraft Incident Vulnerability**

### **Vulnerability to Structures**

Although aircraft incidents rarely cause widespread structural damage, a crash in the City could result in significant localized destruction. Most structures in the City, including residential homes, schools, commercial buildings, and public facilities, are located in close proximity to one another, which increases the risk of multiple structures being affected in the event of an impact, explosion, or post-crash fire. Critical facilities and community centers may be especially vulnerable if located beneath or near frequent flight paths. Given the City's limited open space and dense development, even a small aircraft crash could damage multiple buildings, disrupt utilities, and hinder access for emergency responders. Additionally, the age and condition of certain structures may affect their ability to withstand fire or debris-related impacts.

As determined through the vulnerability assessment detailed in Chapter 3, most of the City's facilities were considered to be at low to moderate risk from aircraft incidents. However, the Hazard Mitigation Planning Committee (HMPC) identified a few facilities, specifically City Hall, Well No. 5, and the Water Maintenance Facility, as having slightly elevated vulnerability. Table G.1 below notates estimated values for vulnerability. These values are meant to demonstrate the extent of vulnerability rather than expected damage.

**Table G.1 Aircraft Incident Loss Estimate Table**

| <b>ASSET NAME</b>            | <b>REPLACEMENT<br/>VALUE</b> | <b>% DAMAGE</b> | <b>LOSS ESTIMATE</b> |
|------------------------------|------------------------------|-----------------|----------------------|
| City Hall & Council Chambers | \$8,333,000                  | 25%             | \$416,650            |
| Lomita Manor Senior Housing  | \$16,079,000                 | 25%             | \$4,019,750          |
| Well No. 5                   | \$1,937,000                  | 20%             | \$77,480             |
| Water Maintenance            | \$1,606,000                  | 20%             | \$48,180             |
| Water Pump Station           | \$1,065,000                  | 20%             | \$42,600             |

Note: The values in this table are provided by a January 2024 Insurance Valuation Report completed by CBIZ Valuation Group, LLC. These values are used for planning purposes only.

To reduce this vulnerability, the City has proposed Mitigation Action 2025.HMP.17, which encourages exploring partnerships and improving collaboration with local airports to encourage less fly-overs and improved hazard communication. By working with nearby aviation facilities, particularly Torrance Municipal Airport, the City aims to reduce the frequency of low-altitude flights over populated areas and enhance real-time coordination in the event of an emergency. This action supports efforts to protect structures, minimize disruption, and promote long-term resilience against aviation-related hazards.

### **Vulnerability to People**

The risk to people during an aircraft incident in the City is significant due to the City's high population density and the number of homes, schools, parks, and public spaces located beneath active flight paths. A crash into a residential area or community gathering space could result in serious injuries or loss of life, especially if it occurs during peak activity hours. Vulnerable populations, including children, older adults, individuals with disabilities, and those with limited mobility- are particularly vulnerable during such emergencies. These residents may face challenges in evacuating quickly, avoiding hazardous areas, or receiving timely medical care. Additionally, language barriers and limited access to emergency information can further delay protective actions in the critical moments following an aircraft incident.

To address these concerns, the City has developed Mitigation Action 2025.HMP.17, which focuses on exploring partnerships and collaboration with local airports to reduce fly-over traffic and improve hazard communication. By working with local airports, particularly Torrance Municipal Airport, the City can advocate for adjusted flight paths that avoid high-risk areas and ensure timely, clear communication with residents in the event of an aviation emergency. This action aims to reduce the number of flights over populated areas and strengthen the City's ability to protect public safety.



# Chapter 4

## Mitigation Strategies

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# 4.1 Mitigation Goals and Objectives

To structure goals and objectives that produce appropriate mitigation actions, the hazard profiles and loss estimates were thoroughly reviewed to identify patterns in the location of potential hazard events and the vulnerability of the infrastructure identified within those locations. This information was used to develop clear goals to mitigate the effects of natural hazard events.

**44 CFR §201.6(c)(3)(i):** [The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

The mitigation goals provide guidelines for developing mitigation projects to provide prioritized hazard reduction. The goals are based on the findings of the Risk Assessment and input from the Hazard Mitigation Planning Committee (HMPC) and characterize long-term hazard reduction targets and the enhancement of current mitigation capabilities.



Table 4.1 includes the Plan goals and corresponding mitigation objectives. These strategies were developed and reviewed by the HMPC using knowledge of the local area (including high-hazard areas and sensitive populations), review of past efforts, findings of the Risk Assessment, and identification of mitigation projects.

Table 4.1 Overall Plan Goals and Objectives

| PLAN GOALS              | SUPPORTING GOAL OBJECTIVES                                                                                                                                                                                                                                                                               |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PROTECT LIFE & PROPERTY | <p><b>Objective 1.1:</b> Implement activities that assist in protecting vulnerable communities, the economy, buildings and critical infrastructure from losses from identified hazards.</p> <p><b>Objective 1.2:</b> Continuously evaluate and obtain information to make recommendations to further</p> |

|                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                            | encourage preventative measures for areas vulnerable to identified hazards.                                                                                                                                                                                                                                                                                                                                        |
| <b>ENHANCE PUBLIC AWARENESS</b>                            | <p><b>Objective 2.1:</b> Enhance education and outreach programs/events to increase public awareness of the risks associated with identified hazards, particularly for vulnerable groups.</p> <p><b>Objective 2.2:</b> Expand and improve information dissemination on services; partnership opportunities, and funding resources to assist the community in independently implementing mitigation activities.</p> |
| <b>PROTECT THE ENVIRONMENT</b>                             | <p><b>Objective 3.1:</b> Continue to monitor evolving weather patterns and implement improvement projects which protect the environment and resist the future impacts of climate change and improve resiliency.</p>                                                                                                                                                                                                |
| <b>ENCOURAGE STRATEGIC PARTNERSHIPS AND IMPLEMENTATION</b> | <p><b>Objective 4.1:</b> Continue collaboration and strategic partnerships with community stakeholders to garner participation in mitigation action implementation.</p> <p><b>Objective 4.2:</b> Encourage City departments to incorporate resiliency and hazard mitigation into future projects and developments.</p>                                                                                             |
| <b>IMPROVE EMERGENCY CAPABILITIES</b>                      | <p><b>Objective 5.1:</b> Maintain an active presence in interagency collaboration and coordination with local first responders and Area G Disaster Management Area member agencies.</p> <p><b>Objective 5.2:</b> Better prepare City personnel to support emergency operations through improved education, exercises, and collaboration with local responders.</p>                                                 |

Following the development of the overall Plan goals and strategies, each hazard was reviewed to determine hazard-specific mitigation objectives. These objectives were developed based on the overall plan goals, hazard profiles, and hazard-specific objectives from the 2018 Plan, and were



used to guide the establishment of mitigation action items. It should be noted that the HMPC worked to better align its goals and objectives with the 2023 Hazard Mitigation Plan Guidance with the inclusion of vulnerable populations. Since the goals and objectives listed above are meant to support the entire community, references to vulnerable populations was not added. As a trade-off, the HMPC demonstrated concern for vulnerable populations in the proposed mitigation actions in Table 4.2. Otherwise, the goals and objectives from the 2018 plan were reviewed and modified for the 2024 update with language that better aligned with current City efforts for improvement.

## 4.2 Identification of Mitigation Recommendations

**44 CFR §201.6(c)(3)(ii):** [The mitigation strategy shall include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

Mitigation actions are administrative and/or engineering project recommendations to reduce the City's vulnerability to the identified hazards. Vital City employees are required in the development of actions and projects that are designed to mitigate these hazards and solve problems cost-effectively, as well as ensure consistency with the City's long-term mitigation goals and capital improvements. During the sixth HMPC meeting, a team-based approach was used to brainstorm mitigation projects based on the identified hazards and associated loss estimates. In addition, FEMA's Local Mitigation Planning Handbook and the California Adaptation

Planning Guide were used to identify actions to mitigate the effects of climate change.

The evaluation and prioritization of the mitigation actions were used as aids to produce a list of recommended mitigation actions to incorporate into the mitigation plan. Each of the mitigation recommendations listed in Table 4.2 fell into one or more of the following categories:

Updates to  
Local Plans and  
Regulations

Structure and  
Infrastructure  
Projects

Natural Systems  
Protections

Education and  
Awareness  
Programs

Table 4.2 provides an overview of the mitigation actions and other relevant information, in no specific order. Following the identification of mitigation actions, a Cost-Benefit Review was conducted in order to determine a prioritization of the items. Section 4.4 contains more information on the Cost-Benefit Review and the prioritization of the projects.

Table 4.2 Mitigation Action Identification

| MITIGATION ACTIVITY                                                                                                                                                                     | HAZARDS MITIGATED | MITIGATION ACTION CATEGORY                                               | CORRESPONDING GOALS | RESPONSIBLE DEPARTMENT                 | RESOURCES                                                | ESTIMATED PROJECT COSTS | TIMEFRAME | PROTECTS NEW BUILDINGS | PROTECTS EXISTING BUILDINGS |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------|---------------------|----------------------------------------|----------------------------------------------------------|-------------------------|-----------|------------------------|-----------------------------|
| 2025.HMP.01: Implement seismic studies to determine vulnerable locations for earth movement throughout city facilities and implement structural improvements accordingly.               | Earthquake        | Local Planning and Regulations/<br>Structure and Infrastructure Projects | Goal 1              | Public Works/Facilities                | Grant Funding (HMGP, BRIC)/<br>Staff Time (General Fund) | \$100,000               | Long      | Y                      | Y                           |
| 2025.HMP.02: Evaluate the EOC (Commissioner’s Room) for functionality during an emergency and obtain the necessary equipment.                                                           | Earthquake        | Local Planning and Regulations                                           | Goal 1              | City Manager’s Office                  | General Fund/<br>Grant Funding (HMGP/BRIC)               | \$500,000               | Short     | N                      | Y                           |
| 2025.HMP.03: Reach out to the State to obtain a list of Board and Care facilities within the City of Lomita to identify potential vulnerable populations for emergency scenarios.       | Multi-Hazard      | Local Planning and Regulations                                           | Goal 1<br>Goal 5    | City Manager’s Office                  | Staff Time (General Fund)                                | Staff Time              | Short     | Y                      | Y                           |
| 2025.HMP.04: Enhance outreach efforts to encourage participation in local and regional earthquake preparedness measures.                                                                | Earthquake        | Education and Awareness Programs                                         | Goal 2              | City Manager’s Office                  | Staff Time (General Fund)                                | Staff Time<br>\$30,000  | Short     | N                      | N                           |
| 2025.HMP.05: Work with SCE to find funding opportunities to upgrade/bury utility lines to mitigate damage from wind scenarios.                                                          | Windstorm         | Local Planning and Regulations/<br>Structure and Infrastructure Projects | Goal 5              | Public Works                           | Staff Time (General Fund)                                | Staff Time              | Medium    | Y                      | Y                           |
| 2025.HMP.06: Explore and develop a program to assist in tree trimming services for private properties which pose a hazard to community safety. Develop this program with an emphasis of | Windstorm         | Local Planning and Regulations/<br>Natural Systems Protection            | Goal 1              | City Manager’s Office/<br>Public Works | Staff Time (General Fund)/<br>Grant Funding (HMGP, BRIC) | \$75,000                | Medium    | Y                      | Y                           |

|                                                                                                                                                                                                        |                |                                                            |                  |                          |                            |            |        |   |   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------|------------------|--------------------------|----------------------------|------------|--------|---|---|
| providing relief to vulnerable populations (i.e. seniors/mobility issues).                                                                                                                             |                |                                                            |                  |                          |                            |            |        |   |   |
| 2025.HMP.07: Develop an outreach program to encourage citizens to evaluate hazards to windstorms independently and take steps to mitigate hazards (i.e. windstorm checklist through local newsletter). | Windstorm      | Education and Awareness Programs                           | Goal 2           | City Manager's Office    | Staff Time (General Fund)  | \$30,000   | Short  | N | N |
| 2025.HMP.08: Upgrade water infrastructure to improve water flow throughout the City and in between water agencies to improve water reliability.                                                        | Water Shortage | Structure and Infrastructure Projects                      | Goal 1           | Public Works             | CIP                        | \$1B       | Long   | Y | Y |
| 2025.HMP.09: Consider how data analytics can be used to encourage the population to reduce water use and improve water resilience.                                                                     | Water Shortage | Natural Systems Protection                                 | Goal 3           | Public Works/ Cal Water  | Staff Time (General Fund)  | \$20,000   | Medium | N | N |
| 2025.HMP.10: Explore opportunities for utilizing reclaimed/recycled water for irrigation throughout the city.                                                                                          | Water Shortage | Local Planning and Regulations/ Natural Systems Protection | Goal 1<br>Goal 3 | Public Works             | Staff Time (General Fund)  | Staff Time | Medium | N | N |
| 2025.HMP.11: Install fire suppression and fire detection equipment within city facilities.                                                                                                             | Urban Fire     | Structure and Infrastructure Projects                      | Goal 1           | Public Works/ Facilities | Grant Funding (HMGP, BRIC) | \$250,000  | Long   | Y | Y |
| 2025.HMP.12: Contact Red Cross to implement Sounding the Alarm events throughout the city.                                                                                                             | Urban Fire     | Education and Awareness Programs                           | Goal 4<br>Goal 5 | City Manager's Office    | Staff Time (General Fund)  | Staff Time | Short  | N | N |
| 2025.HMP.13: Develop an outreach program specifically designed to educate the public about the resources available following an urban fire scenario Renter's insurance/ Red Cross/ etc.).              | Urban Fire     | Education and Awareness Programs                           | Goal 2           | City Manager's Office    | Staff Time (General Fund)  | Staff Time | Medium | N | N |
| 2025.HMP.14: Improve public outreach to notify public of resources (Sandbags/Dial a Ride/Meals                                                                                                         | Flood          | Education and Awareness Programs                           | Goal 2           | City Manager's Office    | Staff Time (General Fund)  | Staff Time | Medium | N | N |

|                                                                                                                                                                                       |                   |                                  |        |                       |                           |                     |        |   |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------|--------|-----------------------|---------------------------|---------------------|--------|---|---|
| on Wheels/CERT) available at the city for high precipitation events.                                                                                                                  |                   |                                  |        |                       |                           |                     |        |   |   |
| 2025.HMP.15: Work with the Public Safety and Traffic Commission to include considerations for hazardous materials release in new agenda items regarding traffic/ safety improvements. | HazMat Release    | Local Planning and Regulations   | Goal 4 | Public Works          | Staff Time (General Fund) | Staff Time          | Medium | N | N |
| 2025.HMP.16: Provide public safety information that covers Shelter in Place and Dig Alert (811-Underground Public Utility Location).                                                  | HazMat Release    | Education and Awareness Programs | Goal 2 | City Manager's Office | Staff Time (General Fund) | Staff Time \$30,000 | Short  | N | N |
| 2025.HMP.17: Explore partnerships and collaboration with the local airport to encourage less fly-overs and improved hazard communication.                                             | Aircraft Incident | Local Planning and Regulations   | Goal 4 | City Manager's Office | Staff Time (General Fund) | Staff Time          | Medium | N | N |

- Notes: 1. Values provided by the HMPC
2. Timeframe definitions are as follows.
- a) Short: Task to be completed within 1-2 years
  - b) Medium Task to be completed within 3-5 years
  - c) Long: Task to be completed after the 5-year planning period
3. Additional Potential Grant Funding Resources are listed in Chapter 5

## Mitigation Actions Not Included in the Hazard Mitigation Plan

During the Planning process, the HMPC proposed several ideas to improve resiliency throughout the City. All developed mitigation actions were included in the final Plan. There were no actions discussed which are not represented in the Mitigation Actions listed in Table 4.2.

### 4.3 Prioritization of Mitigation Recommendations

A simplified Benefit-Cost Review was applied to prioritize the mitigation recommendations for implementation. The priority for implementing mitigation recommendations depends upon the overall cost effectiveness of the recommendation when considering monetary and non-monetary costs and benefits associated with each action. Additionally, the following questions were considered when developing the Benefit-Cost Review:

- How many people will benefit from this action?
- How large of an area is impacted?
- How critical are the facilities that benefit from the action?
- Environmentally, does it make sense to do this project for the overall community?

Table 4.4 provides a detailed benefit-cost review for each mitigation recommendation, as well as a relative priority rank (High, Medium, and Low) based upon the judgment of the HMPC. The general category guidelines are listed below.

- High – Benefits are perceived to exceed costs without further study or evaluation
- Medium – Benefits are perceived to exceed costs, but may require further study or evaluation prior to implementation
- Low – Benefits and cost evaluations requires additional evaluation prior to implementation

It should be noted that the values for cost (cons) are estimates only.

Table 4.3 Benefit-Cost Review Summary Table

| MITIGATION ACTIVITY                                                                                                                                                                                                                                                | BENEFITS                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | COSTS                                                                                                                                            | PRIORITY |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 2025.HMP.01: Implement seismic studies to determine vulnerable locations for earth movement throughout city facilities and implement structural improvements accordingly.                                                                                          | <ul style="list-style-type: none"><li>• Avoided physical damage</li><li>• Reduced casualties/injuries</li><li>• Avoided emergency management costs<ul style="list-style-type: none"><li>• Improved structureal reliability</li></ul></li><li>• Reduced need for emergency response due to reduction in severity<ul style="list-style-type: none"><li>• Improved hazard awareness</li></ul></li><li>• Improved continuity for government when applied to critcal assets</li></ul> | <ul style="list-style-type: none"><li>• Grant Funding/ Staff Time/ CIP Fund<ul style="list-style-type: none"><li>• \$100,000</li></ul></li></ul> | High     |
| 2025.HMP.02: Evaluate the EOC (Commissioner’s Room) for functionality during an emergency and obtain the necessary equipment.                                                                                                                                      | <ul style="list-style-type: none"><li>• Avoided loss of function costs</li><li>• Improved emergency management capability</li></ul>                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"><li>• General Fund/ Grant Funding<ul style="list-style-type: none"><li>• \$500,000</li></ul></li></ul>         | Medium   |
| 2025.HMP.03: Reach out to the State to obtain a list of Board and Care facilities within the City of Lomita to identify potential vulnerable populations for emergency scenarios.                                                                                  | <ul style="list-style-type: none"><li>• Imrpoved coordination with the communitu</li><li>• Improved understanding of hazard vulnerabilities</li><li>• Improved capacity to support the City</li></ul>                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"><li>• Staff Time</li></ul>                                                                                     | High     |
| 2025.HMP.04: Enhance outreach efforts to encourage participation in local and regional earthquake preparedness measures.                                                                                                                                           | <ul style="list-style-type: none"><li>• Improved coordination with the community</li><li>• Improved community understanding of hazard vulnerabilities<ul style="list-style-type: none"><li>• Reduced casualties/ injuries</li></ul></li></ul>                                                                                                                                                                                                                                    | <ul style="list-style-type: none"><li>• Staff Time</li><li>• \$30,000- Outreach Program</li></ul>                                                | High     |
| 2025.HMP.05: Work with SCE to find funding opportunities to upgrade/bury utility lines to mitigate damage from wind scenarios.                                                                                                                                     | <ul style="list-style-type: none"><li>• Avoided physical damages</li><li>• Reduced casualties/ injuries</li><li>• Improved infrastructure</li></ul>                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"><li>• Staff Time</li></ul>                                                                                     | High     |
| 2025.HMP.06: Explore and develop a program to assist in tree trimming services for private properties which pose a hazard to community safety. Develop this program with an emphasis of providing relief to vulnerable populations (i.e. seniors/mobility issues). | <ul style="list-style-type: none"><li>• Reduced casualties/ injuries</li><li>• Reduced physical damage to homes</li><li>• Reduced community displacement with an emphasis for vulnerable populations</li></ul>                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"><li>• Staff Time/ Grant Funding<ul style="list-style-type: none"><li>• \$75,000</li></ul></li></ul>            | Medium   |



|                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                              |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------|
| 2025.HMP.07: Develop an outreach program to encourage citizens to evaluate hazards to windstorms independently and take steps to mitigate hazards (i.e. windstorm checklist through local newsletter). | <ul style="list-style-type: none"> <li>• Reduced physical damages</li> <li>• Reduced casualties/ injuries</li> <li>• Improved coordination with the community</li> <li>• Improved community understanding of hazard vulnerabilities</li> </ul>                                                                                                                         | <ul style="list-style-type: none"> <li>• Staff Time/ General Fund</li> <li>• \$30,000- Outreach Program materials</li> </ul> | Medium |
| 2025.HMP.08: Upgrade water infrastructure to improve water flow throughout the City and in between water agencies to improve water reliability.                                                        | <ul style="list-style-type: none"> <li>• Improved water resiliency</li> <li>• Reduces loss of functions</li> <li>• Improved infrastructure</li> <li>• Reduced impacts of climate change</li> </ul>                                                                                                                                                                     | <ul style="list-style-type: none"> <li>• CIP</li> <li>• \$1B</li> </ul>                                                      | Medium |
| 2025.HMP.09: Consider how data analytics can be used to encourage the population to reduce water use and improve water resilience.                                                                     | <ul style="list-style-type: none"> <li>• Reduced impacts of climate change</li> <li>• Improved coordination with the community</li> <li>• Improved community understanding of hazard vulnerabilities</li> <li>• Improved water resiliency</li> </ul>                                                                                                                   | <ul style="list-style-type: none"> <li>• Staff Time</li> <li>• \$20,000</li> </ul>                                           | Medium |
| 2025.HMP.10: Explore opportunities for utilizing reclaimed/recycled water for irrigation throughout the city.                                                                                          | <ul style="list-style-type: none"> <li>• Reduced impacts of climate change</li> <li>• Support water supply reliability</li> </ul>                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• Staff Time</li> </ul>                                                               | Low    |
| 2025.HMP.11: Install fire suppression and fire detection equipment within city facilities.                                                                                                             | <ul style="list-style-type: none"> <li>• Avoided physical damage</li> <li>• Reduced casualties/ injuries</li> <li>• Avoided emergency management costs</li> <li>• Improved structural reliability</li> <li>• Reduced need for emergency response due to reduction in severity</li> <li>• Improved continuity for government when applied to critical assets</li> </ul> | <ul style="list-style-type: none"> <li>• Grant Funding</li> <li>• \$250,000</li> </ul>                                       | Medium |
| 2025.HMP.12: Contact Red Cross to implement Sounding the Alarm events throughout the city.                                                                                                             | <ul style="list-style-type: none"> <li>• Improved coordination with the community</li> <li>• Improved community understanding of hazard vulnerabilities, particularly for vulnerable populations</li> <li>• Reduced casualties/ injuries</li> </ul>                                                                                                                    | <ul style="list-style-type: none"> <li>• Staff Time</li> </ul>                                                               | High   |

|                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                             |                                                                                                                                  |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------|
|                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>Building relationships with other emergency preparedness agencies</li> </ul>                                                                                                                                                                         |                                                                                                                                  |        |
| 2025.HMP.13: Develop an outreach program specifically designed to educate the public about the resources available following an urban fire scenario Renter's insurance/ Red Cross/ etc.) | <ul style="list-style-type: none"> <li>Improved coordination with the community</li> <li>Improved community understanding of hazard vulnerabilities, particularly for vulnerable populations</li> <li>Reduced community displacement with an emphasis for vulnerable populations</li> </ul> | <ul style="list-style-type: none"> <li>Staff Time</li> </ul>                                                                     | High   |
| 2025.HMP.14: Improve public outreach to notify public of resources (Sandbags/Dial a Ride/Meals on Wheels/CERT) available at the city for high precipitation events                       | <ul style="list-style-type: none"> <li>Improved coordination with the community</li> <li>Improved community understanding of hazard vulnerabilities, particularly for vulnerable populations</li> </ul>                                                                                     | <ul style="list-style-type: none"> <li>Staff Time</li> </ul>                                                                     | High   |
| 2025.HMP.15: Work with the Public Safety and Traffic Commission to include considerations for hazardous materials release in new agenda items regarding traffic/ safety improvements.    | <ul style="list-style-type: none"> <li>Reduced casualties/ injuries</li> <li>Avoided impact on the environment</li> </ul>                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Staff Time</li> </ul>                                                                     | Medium |
| 2025.HMP.16: Provide public safety information that covers Shelter in Place and Dig Alert (811-Underground Public Utility Location).                                                     | <ul style="list-style-type: none"> <li>Improved coordination with the community</li> <li>Improved community understanding of hazard vulnerabilities, particularly for vulnerable populations</li> <li>Reduced casualties/ injuries</li> </ul>                                               | <ul style="list-style-type: none"> <li>Staff Time</li> <li>General Fund</li> <li>\$30,000- Outreach program materials</li> </ul> | Medium |
| 2025.HMP.17: Explore partnerships and collaboration with the local airport to encourage less fly-overs and improved hazard communication.                                                | <ul style="list-style-type: none"> <li>Improved collaboration</li> </ul>                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>Staff Time</li> </ul>                                                                     | Medium |

## 4.4 Implementation Strategy

Mitigation Actions classified as high-priority mitigation actions provide the most significant vulnerability reduction, as related to cost and probability, and are typically implemented before lower ranked improvements. The City of Lomita, however, may find that under some circumstances that a mitigation action classified as low-priority mitigation actions may need to be implemented before a higher priority recommendation. The priority levels associated with each improvement are indicated on the “Mitigation Action Prioritization: Benefit-Cost Review” table in the previous section.

### 2018 Hazard Mitigation Plan Strategies

The HMPC reviewed the mitigation strategies and actions from the 2018 Hazard Mitigation Plan. The 2018 Plan outlined mitigation strategies scheduled for completion in the near future and additional projects for consideration. However, as many of these projects are contingent on the City receiving grant funding to implement, some of these have yet to be completed.

The Hazard Mitigation Planning Committee (HMPC) for this update was composed entirely of new members from the last plan update, as high staff turnover at the City meant none of the participants from the 2018 planning process remained involved. With fresh perspectives and an understanding of current challenges, the current HMPC decided to take a more focused approach by streamlining the mitigation actions and setting achievable goals for this plan. During their review of the previous plan, the team found that they were often unclear about the specifics of some past mitigation actions, as they lacked detailed context and documentation. To ensure greater clarity, the new team focused on creating mitigation actions that were both specific and actionable, so that over the next five years, even with potential staff changes, future teams would easily understand and implement the strategies.

Given that there had been minimal project planning or follow-up since the last update, the team opted to start fresh, creating a new list of actions that better align with today’s priorities rather than carrying over any of the past items. While the actions from the 2018 Plan were not carried over into this update, this was largely because they were considered ongoing efforts, or the current

team did not feel that it was necessary to include in the current actions which were designed to be specific and actionable. The City's ongoing actions continue to be part of the city's standard mitigation activities, which are regularly addressed through established processes and do not require new, separate implementation strategies. As such, these actions were not included as new items but remain integral to the city's continuous hazard mitigation efforts.

Table 4.4 on the following page provides an overview of mitigation strategies from the 2018 Plan and indicates which actions, if any, were completed since the last update. As previously noted, only some of the original mitigation actions received the funding necessary for implementation.

Table 4.4 Status Update of the 2018 Mitigation Strategies

| 2018 MITIGATION STRATEGIES                                                                                                                                                                                                | COMMENTS FROM HMPC REGARDING STATUS OF PAST MITIGATION STRATEGIES                                                                                                                         | STATUS     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <i>MH-1:</i> Integrate the goals and action items from the City of Lomita Natural Hazard Mitigation Plan into existing regulatory documents and programs, where appropriate.                                              | Integration efforts are underway within the Safety Element and other relevant planning documents.                                                                                         | Ongoing    |
| <i>MH-2:</i> Identify and pursue funding opportunities to develop and implement City mitigation activities.                                                                                                               | Funding opportunities are being pursued; integration into the Safety Element and the 247th Street Area Watermain Project is in progress.*                                                 | Ongoing    |
| <i>MH-3:</i> Establish a formal role for the City of Lomita Natural Hazards Mitigation Steering Committee to develop a sustainable process for implementing, monitoring, and evaluating City mitigation activities.       | Progress has been limited due to high staff turnover and a small number of available personnel.                                                                                           | Incomplete |
| <i>MH-4:</i> Identify and partner with organizations within the City of Lomita that have programs or interests in natural hazards mitigation to increase public awareness of hazard mitigation.                           | The shelter agreement with the American Red Cross has been renewed. The City continues to co-host blood drives and free smoke alarm installations, with additional dates being scheduled. | Ongoing    |
| <i>MH-5:</i> Enhance community education by linking emergency services preparedness with natural hazard mitigation programs.                                                                                              | Ongoing public outreach is conducted through all City communication platforms, including the website, social media, and e-newsletters.                                                    | Ongoing    |
| <i>MH- 6:</i> Coordinate with neighboring jurisdictions to monitor the status of their respective infrastructure that could potentially impact the City, such as storm drain systems and emergency transportation routes. | Coordination with neighboring jurisdictions remains ongoing.                                                                                                                              | Ongoing    |
| <i>MH-7:</i> Continue to maintain City street trees to minimize potential of falling limbs, including removal or diseased trees.                                                                                          | A new maintenance contract is currently pending City Council approval.                                                                                                                    | Ongoing    |
| <i>MH-8:</i> Develop, enhance, and implement education programs aimed at mitigating natural hazards, and reducing the risk to employees and citizens residing near or within the City.                                    | Education programs are ongoing.                                                                                                                                                           | Complete   |
| <i>MH-9:</i> Make the City of Lomita Natural Hazards Mitigation Plan available to the public by publishing the plan electronically on the City Website                                                                    | The plan is publicly accessible on the City website.                                                                                                                                      | Complete   |

|                                                                                                                                                                                                             |                                                                                             |            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------|
| <i>MH-10:</i> Develop and implement disaster response training for all employees which includes a hazard mitigation component.                                                                              | The training program's progress is uncertain due to high staff turnover.                    | Incomplete |
| <i>MH-11:</i> Utilize staff meetings and the employee newsletter to inform staff about Hazard Mitigation activities.                                                                                        | This practice has been confirmed as ongoing.                                                | Complete   |
| <i>MH-12:</i> Provide all Area G cities with access to the City's Hazard Mitigation plan.                                                                                                                   | The plan has been made available to all Area G cities.                                      | Complete   |
| <i>MH-13:</i> Installation of an Emergency Power Generator- City Hall.                                                                                                                                      | This was completed in 2023.                                                                 | Complete   |
| <i>MH-14:</i> Water Meter Replacement-Phase 2                                                                                                                                                               | Progress is unclear due to changes in the planning team and lack of detailed documentation. | Incomplete |
| <i>MH-15:</i> Installation of an Emergency Power Generator- Lomita Park.                                                                                                                                    | Grant applications submitted to FEMA and other sources were unsuccessful.                   | Incomplete |
| <i>MH-16:</i> Water and Street Improvement- Walnut Street from Elbony Lane to PCH.                                                                                                                          | Scheduled as Phase 3 of the Zone G improvement project for FY 2026–2028.                    | Complete   |
| <i>MH-17:</i> Disaster Recover Alternative Site Location                                                                                                                                                    | Agreements are confirmed with Lomita Kiwanis and VFW.                                       | Complete   |
| <i>MH-18:</i> Water and Street Improvement- 248th Street from East City Limit to End.                                                                                                                       | These improvements are encompassed within the 247th Street Project.                         | Ongoing    |
| <i>MH-19:</i> Water and Street Improvement- 246th Street from Falena Avenue to East City Limit.                                                                                                             | These improvements are encompassed within the 247th Street Project.                         | Ongoing    |
| <i>MH-20:</i> Water and Street Improvement- 247th Place from East City Limit to End.                                                                                                                        | These improvements are encompassed within the 247th Street Project.                         | Ongoing    |
| <i>MH-21:</i> Water and Street Improvement- Eshelman Avenue from Garner Street to 262nd Street.                                                                                                             | No projects currently planned.                                                              | Incomplete |
| <i>MH-22:</i> Water and Street Improvement- Forrester Drive (Alley) West of Cypress Street.                                                                                                                 | No projects currently planned.                                                              | Incomplete |
| <i>MH-23:</i> Water and Street Improvement- 250th Street from Eshelman Avenue to West End.                                                                                                                  | No projects currently planned.                                                              | Incomplete |
| <i>MH-24:</i> Replace 2" water pipes throughout Lomita Water System to eliminate dead end pipes, improve water circulation, and reduce risk of breaks and leaks. Length of pipe to be replaced: 1,701 feet. | No projects currently planned.                                                              | Incomplete |

|                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                           |            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <i>MH-25:</i> Replace all 1928 or earlier built pipelines that will improve fire flow conditions and reduce risk of breaks and leaks. Length of pipe to be replaced: 11,595 feet.                                                                                                                                                                                              | No projects currently planned.                                                                                                                                                                                                            | Incomplete |
| <i>MH-26:</i> Replace all remaining 1928 or earlier built pipelines regardless of their impact on the fire flow requirement. The City believes the risk of failure for these old pipelines is high and if they fail, they will substantially impact the fire flow, and the fire flow conditions will change from low to very poor. Length of pipe to be replaced: 23,147 feet. | No projects currently planned.                                                                                                                                                                                                            | Incomplete |
| <i>MH-27:</i> Replace all remaining pipes as required to meet the fire flow conditions. Length of pipe to be replaced: 9,605 feet.                                                                                                                                                                                                                                             | No projects currently planned.                                                                                                                                                                                                            | Incomplete |
| <i>MH-28:</i> Install fire suppression sprinkler system in City Hall.                                                                                                                                                                                                                                                                                                          | No projects currently planned.                                                                                                                                                                                                            | Incomplete |
| <i>MH-29:</i> Install specialized fire suppression system in City Hall IT/Server Room.                                                                                                                                                                                                                                                                                         | No projects currently planned.                                                                                                                                                                                                            | Incomplete |
| <i>EQ-1:</i> Continue to improve internal facility non-structural resistance to damage and injury due to earthquakes. Non-structural components include furnishings, equipment, electrical and mechanical fixtures, and architectural features such as partitions, cabinets, and shelves.                                                                                      | No projects currently planned.                                                                                                                                                                                                            | Incomplete |
| <i>EQ-2:</i> Continue to work with the property owners of the unreinforced masonry structures on bringing the structures into compliance with existing building codes.                                                                                                                                                                                                         | No projects currently planned.                                                                                                                                                                                                            | Incomplete |
| <i>EQ-3:</i> Conduct a seismic and structural inventory of all City facilities.                                                                                                                                                                                                                                                                                                | No projects currently planned.                                                                                                                                                                                                            | Incomplete |
| <i>EQ-4:</i> Encourage the use of earthquake braces and straps in homes and businesses.                                                                                                                                                                                                                                                                                        | No projects currently planned.                                                                                                                                                                                                            | Incomplete |
| <i>WND-1:</i> Increase efforts to minimize potential of damages to people and property resulting from falling trees and limbs. This program should prioritize removal of diseased trees.                                                                                                                                                                                       | Efforts to reduce damage from falling trees and limbs, particularly through the removal of diseased trees, are ongoing and reflect the City's commitment to minimizing wind-related hazards.                                              | Ongoing    |
| <i>WND-2:</i> Prepare public awareness materials to encourage home and business owners to protect their properties against strong winds. Materials could include roof strengthening and trimming of nearby trees.                                                                                                                                                              | Public awareness materials encouraging home and business owners to protect properties from strong winds, including roof strengthening and tree trimming, have not been completed but are carried forward into new mitigation initiatives. | Incomplete |
| <i>WND-3:</i> Protect power lines and infrastructure by establishing standards for all utilities regarding tree pruning around lines.                                                                                                                                                                                                                                          | No projects currently planned                                                                                                                                                                                                             | Incomplete |



|                                                                                                                                                                                                    |                                                                                                                                                                                               |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <i>WND-4:</i> Incorporate inspection and management of hazardous trees into the drainage system maintenance process.                                                                               | The integration of hazardous tree inspection and management into storm drainage maintenance remains uncertain due to staff turnover                                                           | Incomplete |
| <i>FLD-1:</i> Conduct a study of localized flooding hazards and identify needed improvements.                                                                                                      | Progress on the study of localized flooding hazards and identification of needed improvements is unclear to current team. This action is being carried forward to the new mitigation actions. | Incomplete |
| <i>FLD-2:</i> Coordinate with LA County to ensure that all storm drains in the City are maintained and cleaned out.                                                                                | Coordination with Los Angeles County regarding storm drain maintenance is uncertain due to staff turnover,                                                                                    | Incomplete |
| <i>FLD-3:</i> Construct 750 feet of 36" RCP lateral from 262nd Street at Eshelman Avenue to 259th Place.                                                                                           | No projects currently planned                                                                                                                                                                 | Incomplete |
| <i>FLD-4:</i> Construct 300 feet of 72" RCP at detention facility for 256th Street; reconstruct street to include gutter down middle of street with grating catch basins.                          | No projects currently planned                                                                                                                                                                 | Incomplete |
| <i>FLD-5:</i> Construct 1,000 feet of 24" RCP with catch basins in area of Pennsylvania Avenue and 253rd Street.                                                                                   | No projects currently planned                                                                                                                                                                 | Incomplete |
| <i>FLD-6:</i> Construct 800 feet of 24" RCP in area of Lomita Boulevard and Pennsylvania Avenue.                                                                                                   | No projects currently planned                                                                                                                                                                 | Incomplete |
| <i>DR-1:</i> Connect Lomita Water System Pressure Zone 2 to the Cypress Water Production Facility (CWPF) to allow for distribution of groundwater to Zone 2 and reduce reliance on imported water. | No projects currently planned                                                                                                                                                                 | Incomplete |
| <i>DR-2:</i> Connect Lomita Water System Pressure Zone 3 to the CWPF to allow for distribution of groundwater to Zone 2 and reduce reliance on imported water.                                     | No projects currently planned                                                                                                                                                                 | Incomplete |
| <i>DR-3:</i> Complete upgrades to the CWPF, including new equipment that allows for the increased use of groundwater and reduce reliance on imported water.                                        | Upgrades to the Cypress Water Production Facility, including installation of new equipment to increase groundwater use, are currently underway.                                               | Ongoing    |

\*- This project consists of installing 3,300 linear feet of new water main that will extend from 246<sup>th</sup> Street beyond the City boundaries, looping within the City of Los Angeles right of way and along Western Avenue (which is Caltrans' right of way), and connecting back to the City of Lomita along 247<sup>th</sup> Street, 247<sup>th</sup> Place, 248<sup>th</sup> Street and Lomita Blvd. The existing water line, which runs north and south within private properties, will be abandoned. The bid opening date was April 11, 2024 and construction contract awarded May 7, 2024. It was anticipated that construction mobilization would begin in Summer 2024



# Chapter 5

## Plan Maintenance

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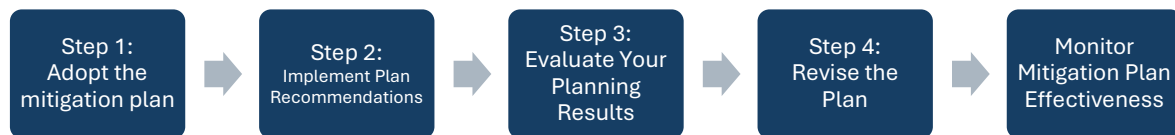
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## 5.1 Mitigation Progress Monitoring

**§201.6(c)(4)(i):** [The plan maintenance process **shall** include a] section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

The Mitigation Strategy section in the Hazard Mitigation Plan identifies mitigation actions that have been prioritized based on the loss estimates and the probability of each hazard, which will typically be implemented according to the priority rank. To thoroughly track hazard mitigation status, the City of Lomita (City) must continuously monitor and document the progress of the implementation of mitigation actions. Though mitigation actions may be delegated to different departments within the City, the Community Safety Manager will have the responsibility of monitoring overall progress.

To facilitate this monitoring process, Table 5.7: “Action Item Implementation” was developed to provide a mechanism for monitoring the overall implementation progress. The table is designed to monitor mitigation actions according to project managers, project status, and project milestones. The table can be found at the end of this chapter.



## 5.2 Planning Mechanisms

**§201.6(c)(4)(ii):** [The plan **shall** include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.

The City maintains the following processes to incorporate mitigation strategies of the Hazard Mitigation Plan into planning mechanisms:

### Website

The City's Hazard Mitigation Plan will be posted on the City's website to enable citizens to review and provide feedback regarding mitigation objectives and strategies. Feedback from residents can be incorporated during the annual review or five-year update of the Hazard Mitigation Plan and expand the Hazard Mitigation Planning Committee's (HMPC) understanding of the public's opinion on hazard vulnerability. In addition, the website can be used as a vehicle to maintain an ongoing conversation with the public regarding upcoming mitigation projects and provide an avenue for hazard education.

### City Council

The City Council is responsible for approving projects, plans, and programs on a City-wide level. By providing mitigation planning concepts to the City Council, mitigation actions and projects will be incorporated into relevant planning efforts. Department heads can expand mitigation efforts by working with Council Members to encourage the inclusion of mitigation goals and objectives for any project or planning efforts which are reviewed by the City Council.

### Public Works Department

The Public Works Department provides infrastructure and maintenance services to City assets and to the public. Hazard mitigation will be integrated into Public Works programs through its involvement in the HMPC. The Public Works Department has the ability to expand mitigation activities by implementing safety mechanisms throughout the City to maximize resiliency. Any project improving City-owned structures would likely be carried out or overseen by the Public Works department.

### Commissions

To assist the City Council in reviewing prominent issues, the City has established the three (3) commissions listed:

- Planning Commission
- Public Safety and Traffic Commission
- Parks and Recreation Commission

## **Community & Economic Development Department**

The City's Community Development Department oversees planning, code enforcement, economic development, film permits, and animal control. Within this department, the Planning Division is responsible for reviewing construction plans, conducting building inspections, and ensuring compliance with applicable codes and regulations. The objective of this Division is to protect public safety and maintain community standards through effective oversight of planning and development activities.

### **Assembly Bill (AB) 2140**

Passed in 2006, AB 2140 compliance would allow the City to be considered for additional state cost-share on eligible Public Assistance. To be eligible, the City must have an approved Hazard Mitigation Plan and adopt that plan into the Safety Element of the City's general plan. Although currently the hazard mitigation plan has not been adopted into the City's Safety Element, doing so would allow the City to bring in more grant funding and reduce the administrative burden of implementing mitigation projects. The City intends to adopt the current plan into the City's Safety Element for future planning purposes.

### **Grant Funding**

Grant Funding can be obtained through many different Federal, State, and specialty organizations. Searching for and obtaining additional funding for the City allows the City to implement improvement projects while limiting the burden of project costs. As part of the implementation strategy of this plan, obtaining grant funding will be crucial to the success of implementing large mitigation actions. Table 5.4 Grant Funding includes a list of some of the programs the City can explore to obtain supplemental funding to implement resiliency action.

### **Resource Tables**

This section serves as a high-level capability assessment of the City's resources through which hazard mitigation objectives may be achieved. The following subsections attempt to document the Planning/Regulatory, Administrative/Technical, Fiscal, Grant funding, and Outreach/Partnership resources available to the City.

Table 5.1: Planning/Regulatory Tools Table

| Regulatory Tool                                                                                 | Updated | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Plan                                                                                    | 2024    | The City recently updated its General Plan, which guides land use, safety, conservation, and economic development. Additionally, the City adopted its 2021–2029 Housing Element in 2021, with revisions made in 2022.                                                                                                                                                                                                                                                                                                                                 |
| Hazard Mitigation Plan                                                                          | 2018    | The Hazard Mitigation plan is the ultimate resource for hazard resiliency. Updated every 5 years with input from various neighboring communities and public stakeholders, the plan lays out a pathway for future resiliency efforts.                                                                                                                                                                                                                                                                                                                  |
| Lomita Urban Water Management Plan                                                              | 2020    | The City is responsible for updating and incorporating mitigation actions and concepts into the Lomita Urban Water Management Plan (UWMP). The Plan is updated every five years to identify future water supply and demands to ensure adequate water supplies to meeting demands under a range of water supply conditions. The UWMP was updated in 2020, with its next revision scheduled within the next five years. Action Items from the Hazard Mitigation Plan will be reviewed during the next scheduled update and incorporated, as applicable. |
| Emergency Operations Plan                                                                       | 2017    | The City’s Emergency Operations Plan establishes the framework for coordinated response and recovery during emergencies. It identifies organizational responsibilities, communication protocols, and coordination mechanisms. The EOP complements the Hazard Mitigation Plan by providing operational guidance to reduce impacts from hazard events.                                                                                                                                                                                                  |
| City of Lomita Building Codes- Title 11, Chapter 1 of the Municipal Code (Building Regulations) | 2022    | The City adopts by reference the California Building Standards Code (Title 24, CCR), including the Building, Residential, Mechanical, Plumbing, and Electrical Codes, as amended by local ordinance. These codes establish minimum standards for construction, structural integrity, and safety to reduce vulnerability to seismic, fire, and other hazard impacts.                                                                                                                                                                                   |

Table 5.2: Administrative/Technical Tools Table

| Regulatory Tool                             | Personnel/Resources                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| City Council                                | The City Council can review and approve mitigation propositions for implementation.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| City Manager’s Department                   | The City Manager’s Department provides executive leadership and ensures the effective implementation of City policies, programs, and services. It plays a key role in hazard mitigation planning by coordinating interdepartmental efforts and integrating mitigation strategies into citywide priorities.                                                                                                                                                                                           |
| Community & Economic Development Department | The Community & Economic Development Department is responsible for all developments within the City. This department will be able to include considerations for local hazards in new projects. The Director of Community and Economic Development also serves as the City’s Floodplain Administrator, as designated in Lomita Municipal Code § 11-1.06, and is responsible for enforcing floodplain management regulations and ensuring compliance with the National Flood Insurance Program (NFIP). |
| Public Works Department                     | The Public Works Department is responsible for street improvements and overall City maintenance. This department can implement hazard mitigation activities as part of planned maintenance and City upgrades.                                                                                                                                                                                                                                                                                        |

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Water Division                        | The City’s Water Division staff is certified by the State of California Operator Certification Program to operate, maintain, and repair the water distribution system and the Cypress Water Production Facility (CWPF). This division can serve as a key resource for hazard mitigation planning by providing data on water infrastructure vulnerabilities, identifying areas at risk of service disruption, and supporting strategies to strengthen system resilience against hazards. |
| Administrative Services Department    | The Administrative Services Department supports city operations through records management, public communications, and internal services such as human resources and risk management. It contributes to hazard mitigation by maintaining essential records, supporting staff preparedness, and promoting continuity of operations during emergencies.                                                                                                                                   |
| Los Angeles County Sheriff Department | The Los Angeles County Sheriff’s Department provides law enforcement services to the City, supporting public safety before, during, and after hazard events. The Department assists in emergency response coordination, evacuation operations, and dissemination of hazard-related information to the public. Its resources and personnel play a key role in implementing mitigation actions related to public safety and emergency communications.                                     |
| Los Angeles County Fire Department    | The Los Angeles County Fire Department provides fire protection, emergency medical response, and specialized rescue services for the City. The Department contributes technical expertise in fire prevention, hazardous materials management, and emergency response planning.                                                                                                                                                                                                          |

Table 5.3: Fiscal Tools Table

| Regulatory Tool                                 | Available for Use        |
|-------------------------------------------------|--------------------------|
| General Fund                                    | Yes, with approval       |
| Capital Improvement Plan                        | Yes                      |
| Authority to impose taxes for specific purposes | Yes, with voter approval |



Table 5.4 Grant Funding Tools Table

| Grant Funding Tool                                  | Agency                                                                     | Purpose                                                                                                                                                                                                                                                                                                                      | Contact                                                                                                                                        |
|-----------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-Disaster Mitigation Program (PDM)               | U.S. Department of Homeland Security, Federal Emergency Management Agency  | To provide funding for States, and communities for cost-effective hazard mitigation activities which complement a comprehensive hazard mitigation program and reduce injuries, loss of life, and damage and destruction of property.                                                                                         | FEMA<br>500 C Street S.W.<br>Washington, DC 20472<br>Phone (202) 646-4621<br><a href="http://www.fema.gov">www.fema.gov</a>                    |
| Hazard Mitigation Grant Program                     | U.S. Department of Homeland Security, Federal Emergency Management Agency  | To prevent future losses of lives property due to disasters; to implement State or local hazard mitigation plans; to enable mitigation measures to be implemented during immediate recovery from a disaster; and to provide funding for previously identified mitigation measures to benefit the disaster area.              | FEMA<br>500 C Street S.W.<br>Washington, DC 20472<br>Phone (202) 646-4621<br><a href="http://www.fema.gov">www.fema.gov</a>                    |
| Flood Mitigation Assistance (FMA)                   | U.S. Department of Homeland Security, Federal Emergency Management Agency  | To help States and communities plan and carry out activities designed to reduce the risk of flood damage to structures insurable under the NFIP.                                                                                                                                                                             | FEMA<br>500 C Street S.W.<br>Washington, DC 20472<br>Phone (202) 646-4621<br><a href="http://www.fema.gov">www.fema.gov</a>                    |
| Emergency Management Performance Grants (EMPG)      | U. S. Department of Homeland Security; Federal Emergency Management Agency | To encourage the development of comprehensive emergency management at the State and local level and to improve emergency management planning, preparedness, mitigation, response, and recovery capabilities.                                                                                                                 | FEMA<br>500 C Street S.W.<br>Washington, DC 20472<br>Phone (202) 646-4621<br><a href="http://www.fema.gov">www.fema.gov</a>                    |
| Community Development Grant Program (CDBG)          | U.S. Department of Housing and Urban Development                           | To develop viable urban communities by providing decent housing and a suitable living environment. Principally for low-to-moderate income individuals.                                                                                                                                                                       | HUD<br>451 7 <sup>th</sup> Street, S. W.<br>Washington, DC 20410-7000<br>Phone: (202) 708-3587<br><a href="http://www.hud.gov">www.hud.gov</a> |
| Public Assistance Program (PA)                      | U.S. Department of Homeland Security, Federal Emergency Management Agency  | To provide supplemental assistance to States, local governments, and certain private nonprofit organizations to alleviate suffering and hardship resulting from major disasters or emergencies declared by the President. Under Section 406, Public Assistance funds may be used to mitigate the impact of future disasters. | FEMA<br>500 C Street S.W.<br>Washington, DC 20472<br>Phone (202) 646-4621<br><a href="http://www.fema.gov">www.fema.gov</a>                    |
| Emergency Watershed Protection                      | U.S. Department of Agriculture, Natural Resource Conservation Service      | To provide emergency technical and financial assistance to install or repair structures that reduce runoff and prevent soil erosion to safeguard life and property.                                                                                                                                                          | NRCS<br>PO BOX 2890<br>Washington, DC 20013<br>Phone: (202) 720-3527<br><a href="http://www.nrcs.usda.gov">www.nrcs.usda.gov</a>               |
| Disaster Mitigation and Technical Assistance Grants | U.S. Department of Commerce, Economic Development Administration           | To help States and localities to develop and /or implement a variety of disaster mitigation strategies.                                                                                                                                                                                                                      | EDA<br>Herbert C. Hoover Building<br>Washington, DC 20230<br>Phone: (800) 345-1222<br><a href="http://www.eda.gov">www.eda.gov</a>             |

|                                                       |                                                                           |                                                                                                                                                                                                                                                            |                                                                                                                                  |
|-------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Watershed Surveys and Planning                        | U.S. Department of Agriculture, Natural Resource Conservation Service     | To provide planning assistance to Federal, State, and local agencies for the development of water coordination and related land resources programs in watersheds and river basins                                                                          | NRCS<br>PO Box 2890<br>Washington, DC 20013<br>Phone: (202) 720-3527<br><a href="http://www.nrcs.usda.gov">www.nrcs.usda.gov</a> |
| National Earthquake Hazards Reduction Program (NEHRP) | U.S. Department of Homeland Security, Federal Emergency Management Agency | To mitigate earthquake losses that can occur in many parts of the nation providing earth science data and assessments essential for warning of imminent damaging earthquakes, land-use planning, engineering design, and emergency preparedness decisions. | FEMA<br>500 C Street S.W.<br>Washington, DC 20472<br>Phone (202) 646-4621<br><a href="http://www.fema.gov">www.fema.gov</a>      |
| Engineering for Natural Hazards                       | National Science Foundation                                               | Supports fundamental research that advances knowledge for understanding and mitigating the impact of natural hazards on constructed civil infrastructure                                                                                                   | National Science Foundation<br>Phone: (703) 292-7024<br><a href="https://www.nsf.gov">https://www.nsf.gov</a>                    |

Table 5.5 Outreach and Partnership Tools

| Regulatory Tool       | Available for Use                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| City Website          | The City website is an open forum for providing hazard information and for accepting ongoing comments from the public. The City website will likely be the main avenue for maintaining an open dialogue with the public for hazard mitigation throughout the planning period                                                                                                                                                                                 |
| City E-Newsletter     | The City’s e-Newsletter, published on a bi-weekly basis, provides information on City events and services and provides updates on City activities and projects. It serves as an effective communication tool to reach residents directly with updates on mitigation projects, preparedness campaigns, and public safety information. It can also be used to highlight success stories and encourage community participation in hazard mitigation activities. |
| City Social Media     | The City utilizes multiple social media platforms (Facebook, Instragram) to engage residents, share timely information, and promote hazard mitigation initiatives. These platforms provide a direct, interactive channel for communicating preparedness tips, promoting community events, and highlighting ongoing mitigation projects.                                                                                                                      |
| Mutual Aid Agreements | As part of expanding its resilience to the impacts of hazard events, the City will periodically review its current mutual aid agreements, identify gaps, and secure new agreements to expand its available mutual resources when necessary.                                                                                                                                                                                                                  |

## Building on Existing Capabilities

As part of the Plan update, potential improvements to the City's existing capabilities were discussed. The City is cognizant of the need to continually evaluate its efforts and take an active role in promoting resiliency within the City. The City currently utilizes its City Manager's Department to train its staff and reach out to the community regarding preventative and preparedness strategies for hazard events. The Capital Improvement Program (CIP) directs funding to improve infrastructure, and the City continually searches for grant opportunities to allow the City to accomplish additional improvements that address hazard mitigation efforts for public facilities. In addition to the City's current efforts, the following is a list of potential new initiatives that would improve the City's ability to promote resiliency.

- **Regulatory/Fiscal:** Enhance the CIP proposal procedure to include a Mitigation/Resiliency element to be considered for each project proposal. The intent is to consider how each CIP project might contribute to mitigation efforts, citing the HMP when proposed projects align with hazard mitigation planning efforts.
- **Administrative:** Expand Community Safety Division programs to provide specialized natural disaster training and safety for City personnel and the public, as appropriate.
- **Grant Funding:** Expand search for grant funding specifically to assist with aging infrastructure improvements, water reliability, energy efficiency, and facility upgrades.
- **Outreach/Education:** Engage City commissions and committees and increase volunteer opportunities to work with the public to gain community participation in resiliency efforts and voluntary resilience projects for privately-owned properties.

### Progress for Mitigation Incorporation

The sections above demonstrate the many resources available to the City for successful mitigation action implementation. Since the previous planning cycle, the City has made meaningful progress in incorporating mitigation into daily operations and long-term planning. This progress is reflected through a combination of infrastructure improvements, interdepartmental coordination, and community engagement. Key accomplishments include renewing the City's shelter agreement with the American Red Cross, hosting public outreach events such as blood drives and smoke alarm installations, and installing emergency power generators at both City Hall and the Appian Way Water Pump Station to strengthen critical facility resilience. The City has also advanced coordination and transparency by making the Hazard Mitigation Plan publicly available online and to Area G cities, and by working with neighboring jurisdictions on shared infrastructure concerns. Additional efforts, such as maintaining and replacing City street trees to reduce windstorm hazards, confirming a disaster recovery alternative site through agreements with local

organizations, and conducting Mass Care Training for City staff and CERT, further demonstrate the City's commitment to readiness and risk reduction. Collectively, these accomplishments highlight a proactive approach to embedding mitigation into planning and operations, while ongoing initiatives- such as seismic risk assessments, interagency communication improvements, and public education campaigns- continue to build resilience for the future.

## **Available Planning Mechanisms to Incorporate Mitigation Requirements**

The City uses the following local planning mechanisms for incorporating the mitigation requirements of the Hazard Mitigation Plan.

### **General Planning**

The City is responsible for updating and incorporating mitigation actions and concepts into the General Plan. The General Plan is evaluated on a periodic basis, which includes a review of the policies and programs associated with land use and development, among other things. Mitigation actions from the Hazard Mitigation Plan will be reviewed during the update of the General Plan and incorporated as applicable. As part of this review, ordinances and codes will be reviewed to ensure they are consistent with the mitigation strategies and referred to the appropriate regulatory authority as needed.

### **Emergency Operations Plan**

The City maintains an Emergency Operations Plan (EOP) that includes profiles and specific responses for earthquakes, flooding, windstorms, and drought that are mentioned in the Hazard Mitigation Plan. The City will incorporate the Risk Assessment into the EOP in addition to using emergency scenarios outlined in the report to flush out potential mitigation actions.

### **Capital Improvements Program**

The City maintains a Capital Improvements Program (CIP) with projects that are budgeted for at least a five-year period. Engineering mitigation projects are included within the CIP. Additionally, the projects already included within the CIP are reviewed for mitigation improvements (e.g., areas prone to flooding are configured with mitigation elements, current seismic design criteria is applied to construction, facility locations are reviewed for special hazards, etc.).

### **Progress for Planning Mechanism Incorporation**

The City has demonstrated its commitment to incorporating hazard mitigation principles across multiple planning efforts by utilizing the previous LHMP as a guiding resource. The LHMP was referenced in the City's 2020 Urban Water Management Plan (UWMP) to inform the assessment

of long-term drought vulnerabilities, emergency water supply reliability, and strategies for ensuring system resilience under hazard conditions. In addition, the LHMP informed the update of the General Plan Safety Element in 2021, ensuring consistency between hazard analysis, land use planning, and community safety objectives. The Safety Element integrated risk information and mitigation priorities from the LHMP. By aligning the Safety Element with the LHMP, the City reinforced its long-term vision of reducing hazard exposure through land use policies, infrastructure investments, and coordinated emergency response planning. Under the direction of the Community Safety Manager, the Plan Update will be able to be incorporated into future planning efforts.

## 5.3 Periodic Assessment Requirements

**§201.6(c)(4)(i):** [The plan maintenance process **shall** include a] section describing the method and schedule of monitoring, **evaluating**, and updating the mitigation plan within a five-year cycle.

Mitigation planning is an ongoing process, and as such, the Hazard Mitigation Plan should be treated as a living document that must grow and adapt in order to keep pace with changes within the City. Continuing from the 2018 Plan, an annual assessment will be completed to document any changes in site hazards (e.g., updated FIRM maps, contemporary seismic studies, etc.) or the

installation and purchase of new equipment (e.g., back-up generators, emergency response equipment, etc.) to ensure they do not have any major effects on City's hazard vulnerabilities that would impact the conclusions or actions associated with the Hazard Mitigation Plan. In addition, these reviews will track the progress of proposed mitigation actions and the incorporation of mitigation planning in other City planning documents. As needed, these reviews can be used to promote mitigation action with the City or alter mitigation strategies within the plan, as appropriate. If any of the above-mentioned goals have not made progress, Plan objectives can be brought to department heads for approval. The criteria for progress will be evaluated by the completion of mitigation actions, references of this Plan in planning mechanisms, and the frequency with which public comments, particularly from representatives of vulnerable groups are obtained.

Prior to the fifth year of the revision cycle and after the third annual review, these annual observations will be evaluated to determine what changes should be implemented in the required Hazard Mitigation Plan Update. The results of the annual evaluations will be folded back into each phase of the planning process and should yield decisions on how to update each section of the Plan. The official Plan update is expected to begin one year prior to the five-year anniversary date.

The City's Community Safety Manager has the responsibility of implementing these annual and five-year requirements. During the annual review, if any updates are deemed minor, then the Management Analyst or designee will perform the updates. However, if more major updates are required, then the HMPC will be reconvened to discuss the effects on the Plan. For the fifth-year revision, the entire HMPC will reconvene in order to use their expertise to update the Plan in its entirety.

In addition to these periodic requirements, any significant modification to the City's facilities should be considered with respect to a possible impact on the Hazard Mitigation Plan. All HMPC members are responsible for providing updates for the Plan to the Community Safety Manager, as necessary. As noted in the following section, the completed Hazard Mitigation Plan will be available on the City's website to allow the public to continue to be involved during these periodic reviews.

## 5.4 Update Requirements

The Emergency Management and Assistance regulations (44 CFR Part 201) state that it is the responsibility of local agencies (i.e., the City) to "at a minimum, review and, if necessary, update the local mitigation plan every five years from date of plan approval to continue program eligibility." As stated in Section 5.3, this responsibility lies with the Community Safety Manager. The evaluation procedures listed below will provide insight into the major changes that need to be included in the five-year update and resubmission to FEMA:

- Annual Hazard Mitigation Plan review with respect to changes in hazard vulnerability (e.g., additional hazards identified, natural hazard events, etc.)
- Annual Hazard Mitigation Plan review with respect to development of new facilities
- Five-year comprehensive update to address the findings of the annual reviews
- Re-submittal of the updated Hazard Mitigation Plan to CalOES/FEMA

Additionally, the risk assessment portion of the plan will be reviewed to determine if the information should be updated or modified. Each division/department responsible for the various implementation actions will report on:

- Status of their projects,
- Implementation processes,
- Any difficulties encountered,
- How coordination efforts are proceeding, and

- Strategies that should be revised.

## Plan Update

The City's Hazard Mitigation Plan was last updated in 2018. During HMPC Meeting #3, the Plan goals were reviewed for consistency and applicability to the City, along with the goals from the 2023 California State Hazard Mitigation Plan and 2020 Los Angeles County All-Hazards Mitigation Plan. Table 5.6 illustrates the changes in the priorities of the Plan.

**Table 5.6: Hazard Mitigation Plan Goals**

| <b>2018 Plan Goals</b>                    | <b>Current Plan Goals</b>                           |
|-------------------------------------------|-----------------------------------------------------|
| Protect Life and Property                 | Protect Life and Property                           |
| Enhance Public Awareness                  | Enhance Public Awareness                            |
| Preserve Natural Systems                  | Protect the Environment                             |
| Encourage Partnerships and Implementation | Encourage Strategic Partnerships and Implementation |
| Strengthen Emergency Services             | Improve Emergency Capabilities                      |

As shown in Table 5.6, the overall intent of the current plan goals remains consistent with those in the 2018 Local Hazard Mitigation Plan. However, the HMPC refined and updated the goals and associated objectives to improve clarity, specificity, and long-term usability. Some goals were revised to better align with current priorities and terminology. For example, the 2018 goal "Preserve Natural Systems" was updated to "Protect the Environment" to reflect a broader, more proactive environmental focus. Similarly, "Strengthen Emergency Services" became "Improve Emergency Capabilities" to encompass a wider range of preparedness and recovery functions. The goal "Encourage Partnerships and Implementation" was revised to "Encourage Strategic Partnerships and Implementation" to emphasize the importance of coordinated goal-oriented collaboration. Goals that remained the same, such as "Protect Life and Property" and "Enhance Public Awareness", now include updated objectives that are more clear, specific, and actionable, ensuring that they guide effective mitigation actions throughout the five-year life of the Plan. Details of the Plan goals and objectives can be found in Chapter 4 of this Plan.



## Continued Public Involvement

To facilitate ongoing public input, the completed and adopted Hazard Mitigation Plan will be posted on the City's website and social media outlets to allow the public to remain engaged and provide feedback. Additionally, the City's social media outlets and bi-weekly e-newsletters will be used to inform the public on mitigation action implementation, including the progress and completion of projects. These outreach platforms also provide an opportunity to highlight the City's "wins", emphasizing how mitigation efforts protect public safety, reduce long-term recovery costs, and demonstrate responsible use of public funds. The website will include a link to a contact form allowing the public to submit comments. When updating the Hazard Mitigation Plan, the City will solicit participation from HMPC participants to discuss any issues that need to be addressed in the Hazard Mitigation Plan update. Public participation will be solicited through public notices and advertised on the website.

The goal of outreach regarding update meetings is to solicit public involvement in the HMPC, which brainstorms the hazards facing the City and discusses ways to mitigate those hazards. It should be noted that for this plan update, the public was encouraged to participate in the hazard mitigation process through the release of a public survey and discussions at City events. Results from the survey highlighted the hazards that were of most concern to the community. Going forward, the City can use the information from the survey results when deciding which mitigation action to implement. It can generally be assumed that actions reducing risk for the top-rated hazards will be well received by the community. More detailed information regarding the survey results can be found in Chapter 1 and Appendix D.

If Plan revisions are needed, the City will request involvement from vulnerable groups within the community. Public announcements via the City website will be supplemented by targeted outreach materials, such as letters and surveys, delivered directly to representatives of vulnerable populations. This approach will help ensure that outreach efforts are comprehensive and inclusive.

Table 5.7: Action Item Implementation

| Action ID   | Action Description                                                                                                                                                                                                                                    | Responsible Department                 | Completion Timeframe | Status | Details/Status Summary |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------|--------|------------------------|
| 2025.HMP.01 | Implement seismic studies to determine vulnerable locations for earth movement throughout city facilities and implement structural improvements accordingly.                                                                                          | Public Works/Facilities                | Long                 | Open   |                        |
| 2025.HMP.02 | Evaluate the EOC (Commissioner’s Room) for functionality during an emergency and obtain the necessary equipment.                                                                                                                                      | City Manager’s Office                  | Short                | Open   |                        |
| 2025.HMP.03 | Reach out to the State to obtain a list of Board and Care facilities within the City of Lomita to identify potential vulnerable populations for emergency scenarios.                                                                                  | City Manager’s Office                  | Short                | Open   |                        |
| 2025.HMP.04 | Enhance outreach efforts to encourage participation in local and regional earthquake preparedness measures.                                                                                                                                           | City Manager’s Office                  | Short                | Open   |                        |
| 2025.HMP.05 | Work with SCE to find funding opportunities to upgrade/bury utility lines to mitigate damage from wind scenarios.                                                                                                                                     | Public Works                           | Medium               | Open   |                        |
| 2025.HMP.06 | Explore and develop a program to assist in tree trimming services for private properties which pose a hazard to community safety. Develop this program with an emphasis of providing relief to vulnerable populations (i.e. seniors/mobility issues). | City Manager’s Office/<br>Public Works | Medium               | Open   |                        |
| 2025.HMP.07 | Develop an outreach program to encourage citizens to evaluate hazards to windstorms independently and take steps to mitigate hazards (i.e. windstorm checklist through local newsletter).                                                             | City Manager’s Office                  | Short                | Open   |                        |
| 2025.HMP.08 | Upgrade water infrastructure to improve water flow throughout the City and in between water agencies to improve water reliability.                                                                                                                    | Public Works                           | Long                 | Open   |                        |
| 2025.HMP.09 | Consider how data analytics can be used to encourage the population to reduce water use and improve water resilience.                                                                                                                                 | Public Works/ Cal Water                | Medium               | Open   |                        |
| 2025.HMP.10 | Explore opportunities for utilizing reclaimed/recycled water for irrigation throughout the city.                                                                                                                                                      | Public Works                           | Medium               | Open   |                        |
| 2025.HMP.11 | Install fire suppression and fire detection equipment within city facilities.                                                                                                                                                                         | Public Works/ Facilities               | Long                 | Open   |                        |
| 2025.HMP.12 | Contact Red Cross to implement Sounding the Alarm events throughout the city.                                                                                                                                                                         | City Manager’s Office                  | Short                | Open   |                        |
| 2025.HMP.13 | Develop an outreach program specifically designed to educate the public about the resources available following an urban fire scenario Renter’s insurance/ Red Cross/ etc.).                                                                          | City Manager’s Office                  | Medium               | Open   |                        |
| 2025.HMP.14 | Improve public outreach to notify public of resources (Sandbags/Dial a Ride/Meals on Wheels/CERT) available at the city for high precipitation events.                                                                                                | City Manager’s Office                  | Medium               | Open   |                        |

|             |                                                                                                                                                                          |                       |        |      |  |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------|------|--|
| 2025.HMP.15 | Work with the Public Safety and Traffic Commission to include considerations for hazardous materials release in new agenda items regarding traffic/ safety improvements. | Public Works          | Medium | Open |  |
| 2025.HMP.16 | Provide public safety information that covers Shelter in Place and Dig Alert (811-Underground Public Utility Location).                                                  | City Manager's Office | Short  | Open |  |
| 2025.HMP.17 | 2025.HMP.17: Explore partnerships and collaboration with the local airport to encourage less fly-overs and improved hazard communication.                                | City Manager's Office | Medium | Open |  |

## ANNEX A. GLOSSARY

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**Active fault** - For implementation of Alquist-Priolo Earthquake Fault Zoning Act (APEFZA) requirements, an active fault is one that shows evidence of, or is suspected of having experienced surface displacement within the last 11,000 years. APEFZA classification is designed for land use management of surface rupture hazards. A more general definition (National Academy of Science, 1988), states "a fault that on the basis of historical, seismological, or geological evidence has the finite probability of producing an earthquake" (see potentially active fault).

**Aftershocks** - Minor earthquakes following a greater one and originating at or near the same place.

**Asset** - Any man-made or natural feature that has value, including, but not limited to people, buildings, infrastructure like bridges, roads, and sewer and water systems; lifelines like electricity and communication resources; or environmental, cultural, or recreational features like parks, dunes, wetlands, or landmarks.

**A zone** - Under the National Flood Insurance Program, area subject to inundation by the 100-year flood where wave action does not occur or where waves are less than 3 feet high, designated Zone A, AE, A1-A30, A0, AH, or AR on a Flood Insurance Rate Map (FIRM).

**Base flood** - Flood that has a 1 percent probability of being equaled or exceeded in any given year. Also known as the 100-year flood.

**Bedrock** - The solid rock that underlies loose material, such as soil, sand, clay, or gravel.

**Contour** - A line of equal ground elevation on a topographic (contour) map.

**Critical facility** - Facilities that are critical to the health and welfare of the population and that are especially important following hazard events. Critical facilities include, but are not limited to, shelters, police and fire stations, and hospitals.

**Debris** - (Seismic) The scattered remains of something broken or destroyed; ruins; rubble; fragments. (Flooding, Coastal) Solid objects or masses carried by or floating on the surface of moving water.

**Debris flow** - A saturated, rapidly moving saturated earth flow with 50 percent rock fragments coarser than 2 mm in size which can occur on natural and graded slopes.

**Duration** - How long a hazard event lasts.

**Earthquake** - Vibratory motion propagating within the Earth or along its surface caused by the abrupt release of strain from elastically deformed rock by displacement along a fault.

**Epicenter** - The point at the Earth's surface directly above where an earthquake originated.

**Erosion** - Under the National Flood Insurance Program, the process of the gradual wearing away of landmasses. In general, erosion involves the detachment and movement of soil and rock fragments, during a flood or storm or over a period of years, through the action of wind, water, or other geologic processes.

**Essential facility** - Elements that are important to ensure a full recovery of a community or state following a hazard event. These would include: government functions, major employers, banks, schools, and certain commercial establishments, such as grocery stores, hardware stores, and gas stations.

**Extent** - The size of an area affected by a hazard or hazard event.

**Fault** - A fracture in the continuity of a rock formation caused by a shifting or dislodging of the earth's crust, in which adjacent surfaces are differentially displaced parallel to the plane of fracture.

**Fault slip rate** - The average long-term movement of a fault (measured in cm/year or mm/year) as determined from geologic evidence.

**Federal Emergency Management Agency (FEMA)** - Independent agency created in 1978 to provide a single point of accountability for all Federal activities related to disaster mitigation and emergency preparedness, response and recovery.

**Flash flood** - A flood event occurring with little or no warning where water levels rise at an extremely fast rate.

**Flood** - A general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of inland or tidal waters, (2) the unusual and rapid accumulation or runoff of surface waters from any source, or (3) mudflows or the sudden collapse of shoreline land.

**Floodplain** - Any land area, including watercourse, susceptible to partial or complete inundation by water from any source.

**Frequency** - A measure of how often events of a particular magnitude are expected to occur. Frequency describes how often a hazard of a specific magnitude, duration, and/or extent typically occurs, on average. Statistically, a hazard with a 100-year recurrence interval is expected to occur once every 100 years on average and would have a 1 percent chance – its probability – of happening in any given year. The reliability of this information varies depending on the kind of hazard being considered.

**Geographic Information Systems (GIS)** - A computer software application that relates physical features on the Earth to a database to be used for mapping and analysis.

**Ground motion** - The vibration or shaking of the ground during an earthquake. When a fault ruptures, seismic waves radiate, causing the ground to vibrate. The severity of the vibration increases with the amount of energy released and decreases with distance from the causative fault or epicenter, but soft soils can further amplify ground motions.

**Ground rupture** - Displacement of the earth's surface as a result of fault movement associated with an earthquake.

**Hailstorm** – Storm associated with spherical balls of ice. Hail is a product of thunderstorms or intense showers. It is generally white and translucent, consisting of liquid or snow particles encased with layers of ice. Hail is formed within the higher reaches of a well-developed thunderstorm. When hailstones become too heavy to be caught in an updraft back into the clouds of the thunderstorm (hailstones can be caught in numerous updrafts adding a coating of ice to the original frozen droplet of rain each time), they fall as hail and a hailstorm ensues.

**Hazard** - A source of potential danger or adverse condition. Hazards in this how-to series will include naturally occurring events such as floods, earthquakes, tornadoes, tsunamis, coastal storms, landslides, and wildfires that strike populated areas. A natural event is a hazard when it has the potential to harm people or property.

**Hazard event** - A specific occurrence of a particular type of hazard.

**Hazard identification** - The process of identifying hazards that threaten an area.

**Hazard mitigation** - Sustained actions taken to reduce or eliminate long-term risk from hazards and their effects.

**Hazard Mitigation Grant Program (HMGP)** – Authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, HMGP is administered by FEMA and provides grants to states, tribes, and local governments to implement hazard

mitigation actions after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to disasters and to enable mitigation activities to be implemented as a community recovers from a disaster.

**Hazard Mitigation Plan** – A collaborative document in which hazards affecting the community are identified, vulnerability to hazards assessed, and consensus reached on how to minimize or eliminate the effects of these hazards.

**Hazard profile** - A description of the physical characteristics of hazards and a determination of various descriptors including magnitude, duration, frequency, probability, and extent. In most cases, a community can most easily use these descriptors when they are recorded and displayed as maps.

**Hazardous Material Facilities** – Facilities housing industrial and hazardous materials, such as corrosives, explosives, flammable materials, radioactive materials, and toxins.

**HAZUS (Hazards U.S.)** - A GIS-based nationally standardized earthquake loss estimation tool developed by FEMA.

**Hurricane** - An intense tropical cyclone, formed in the atmosphere over warm ocean areas, in which wind speeds reach 74-miles-per-hour or more and blow in a large spiral around a relatively calm center or "eye." Hurricanes develop over the north Atlantic Ocean, northeast Pacific Ocean, or the south Pacific Ocean east of 160°E longitude. Hurricane circulation is counter-clockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.

**Hydrology** - The science of dealing with the waters of the earth. A flood discharge is developed by a hydrologic study.

**Infrastructure** - Refers to the public services of a community that have a direct impact on the quality of life. Infrastructure includes communication technology such as phone lines or Internet access, vital services such as public water supplies and sewer treatment facilities, and includes an area's transportation system such as airports, heliports; highways, bridges, tunnels, roadbeds, overpasses, railways, bridges, rail yards, depots; and waterways, canals, locks, seaports, ferries, harbors, drydocks, piers and regional dams.

**Landslide** - A general term covering a wide variety of mass-movement landforms and processes involving the downslope transport, under gravitational influence, of soil and rock material en masse.



**Liquefaction** - Changing of soils (unconsolidated alluvium) from a solid state to weaker state unable to support structures; where the material behaves similar to a liquid as a consequence of earthquake shaking. The transformation of cohesionless soils from a solid or liquid state as a result of increased pore pressure and reduced effective stress.

**Magnitude** - A measure of the strength of a hazard event. The magnitude (also referred to as severity) of a given hazard event is usually determined using technical measures specific to the hazard.

**Mitigation plan** - A systematic evaluation of the nature and extent of vulnerability to the effects of natural hazards typically present in the state and includes a description of actions to minimize future vulnerability to hazards.

**Nor'easter** - An extra-tropical cyclone producing gale-force winds and precipitation in the form of heavy snow or rain.

**Peak Ground Acceleration (PGA)** - The greatest amplitude of acceleration measured for a single frequency on an earthquake accelerogram. The maximum horizontal ground motion generated by an earthquake. The measure of this motion is the acceleration of gravity (equal to 32 feet per second squared, or 980 centimeter per second squared), and generally expressed as a percentage of gravity.

**Potentially active fault** - A fault showing evidence of movement within the last 1.6 million years (750,000 years according to the U.S. Geological Survey) but before about 11,000 years ago, and that is capable of generating damaging earthquakes.

**Probability** - A statistical measure of the likelihood that a hazard event will occur.

**Replacement value** - The cost of rebuilding a structure. This is usually expressed in terms of cost per square foot and reflects the present-day cost of labor and materials to construct a building of a particular size, type and quality.

**Retrofit** - Any change made to an existing structure to reduce or eliminate damage to that structure from flooding, erosion, high winds, earthquakes, or other hazards

**Richter scale** - A numerical scale of earthquake magnitude devised by seismologist C.F. Richter in 1935. Seismologists no longer use this magnitude scale because of limitations in how it measures large earthquakes and prefer instead to use moment magnitude as a measure of the energy released during an earthquake.

**Risk** - The estimated impact that a hazard would have on people, services, facilities, and structures in a community; the likelihood of a hazard event resulting in an adverse

condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate or low likelihood of sustaining damage above a particular threshold due to a specific type of hazard event. It also can be expressed in terms of potential monetary losses associated with the intensity of the hazard.

**Seismicity** - Describes the likelihood of an area being subject to earthquakes.

**Tectonic plate** - Torsionally rigid, thin segments of the earth's lithosphere that may be assumed to move horizontally and adjoin other plates. It is the friction between plate boundaries that cause seismic activity.

**Topographic** - Characterizes maps that show natural features and indicate the physical shape of the land using contour lines. These maps may also include manmade features.

**Tornado** - A violently rotating column of air extending from a thunderstorm to the ground.

**Tsunami** - Great sea wave produced by a submarine earthquake, landslide, or volcanic eruption.

**Vulnerability** - Describes how exposed or susceptible to damage an asset is. Vulnerability depends on an asset's construction, contents, and the economic value of its functions. Like indirect damages, the vulnerability of one element of the community is often related to the vulnerability of another. For example, many businesses depend on uninterrupted electrical power – if an electric substation is flooded, it will affect not only the substation itself, but a number of businesses as well. Often, indirect effects can be much more widespread and damaging than direct ones.

**Vulnerability assessment** - The extent of injury and damage that may result from a hazard event of a given intensity in a given area. The vulnerability assessment should address impacts of hazard events on the existing and future built environment.

**Wildfire** - An uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures.

**Zone** - A geographical area shown on a Flood Insurance Rate Map.

**100-year flood** – A flood that has a 1-percent chance of being equaled or exceeded in any given year. This flood event is also referred to as the base flood. The term "100-year flood" can be misleading; it is not the flood that will occur once every 100 years. Rather, it is the flood elevation that has a 1- percent chance of being equaled or exceeded each year. Therefore, the 100-year flood could occur more than once in a relatively short period of time. The 100-year flood, which is the standard used by most federal and state

agencies, is used by the National Flood Insurance Program (NFIP) as the standard for floodplain management to determine the need for flood insurance.

**500-year flood** – A flood that has a 0.2-percent chance of being equaled or exceeded in any one year.

## ANNEX B. REGULATIONS

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The Disaster Mitigation Act of 2000 (P.L. 106-390) facilitates a new and revitalized approach to mitigation planning. DMA 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions (Section 409) and replacing them with a new set of mitigation plan requirements (Section 322). This new section emphasizes the need for state, Tribal, and local entities to closely coordinate mitigation planning and implementation efforts. The following pages provide a description of the Disaster Mitigation Act of 2000, as well as the Interim Final Rule for mitigation planning.

PUBLIC LAW 106-390—OCT. 30, 2000

DISASTER MITIGATION ACT OF 2000

Public Law 106–390  
106th Congress

An Act

Oct. 30, 2000  
[H.R. 707]

To amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act to authorize a program for predisaster mitigation, to streamline the administration of disaster relief, to control the Federal costs of disaster assistance, and for other purposes.

Disaster  
Mitigation Act of  
2000.  
42 USC 5121  
note.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

(a) **SHORT TITLE.**—This Act may be cited as the “Disaster Mitigation Act of 2000”.

(b) **TABLE OF CONTENTS.**—The table of contents of this Act is as follows:

Sec. 1. Short title; table of contents.

**TITLE I—PREDISASTER HAZARD MITIGATION**

Sec. 101. Findings and purpose.

Sec. 102. Predisaster hazard mitigation.

Sec. 103. Interagency task force.

Sec. 104. Mitigation planning; minimum standards for public and private structures.

**TITLE II—STREAMLINING AND COST REDUCTION**

Sec. 201. Technical amendments.

Sec. 202. Management costs.

Sec. 203. Public notice, comment, and consultation requirements.

Sec. 204. State administration of hazard mitigation grant program.

Sec. 205. Assistance to repair, restore, reconstruct, or replace damaged facilities.

Sec. 206. Federal assistance to individuals and households.

Sec. 207. Community disaster loans.

Sec. 208. Report on State management of small disasters initiative.

Sec. 209. Study regarding cost reduction.

**TITLE III—MISCELLANEOUS**

Sec. 301. Technical correction of short title.

Sec. 302. Definitions.

Sec. 303. Fire management assistance.

Sec. 304. Disaster grant closeout procedures.

Sec. 305. Public safety officer benefits for certain Federal and State employees.

Sec. 306. Buy American.

Sec. 307. Treatment of certain real property.

Sec. 308. Study of participation by Indian tribes in emergency management.

**TITLE I—PREDISASTER HAZARD  
MITIGATION**

42 USC 5133  
note.

**SEC. 101. FINDINGS AND PURPOSE.**

(a) **FINDINGS.**—Congress finds that—

(1) natural disasters, including earthquakes, tsunamis, tornadoes, hurricanes, flooding, and wildfires, pose great danger to human life and to property throughout the United States;

(2) greater emphasis needs to be placed on—

(A) identifying and assessing the risks to States and local governments (including Indian tribes) from natural disasters;

(B) implementing adequate measures to reduce losses from natural disasters; and

(C) ensuring that the critical services and facilities of communities will continue to function after a natural disaster;

(3) expenditures for postdisaster assistance are increasing without commensurate reductions in the likelihood of future losses from natural disasters;

(4) in the expenditure of Federal funds under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.), high priority should be given to mitigation of hazards at the local level; and

(5) with a unified effort of economic incentives, awareness and education, technical assistance, and demonstrated Federal support, States and local governments (including Indian tribes) will be able to—

(A) form effective community-based partnerships for hazard mitigation purposes;

(B) implement effective hazard mitigation measures that reduce the potential damage from natural disasters;

(C) ensure continued functionality of critical services;

(D) leverage additional non-Federal resources in meeting natural disaster resistance goals; and

(E) make commitments to long-term hazard mitigation efforts to be applied to new and existing structures.

(b) **PURPOSE.**—The purpose of this title is to establish a national disaster hazard mitigation program—

(1) to reduce the loss of life and property, human suffering, economic disruption, and disaster assistance costs resulting from natural disasters; and

(2) to provide a source of predisaster hazard mitigation funding that will assist States and local governments (including Indian tribes) in implementing effective hazard mitigation measures that are designed to ensure the continued functionality of critical services and facilities after a natural disaster.

#### **SEC. 102. PREDISASTER HAZARD MITIGATION.**

(a) **IN GENERAL.**—Title II of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5131 et seq.) is amended by adding at the end the following:

#### **“SEC. 203. PREDISASTER HAZARD MITIGATION.**

“(a) **DEFINITION OF SMALL IMPOVERISHED COMMUNITY.**—In this section, the term ‘small impoverished community’ means a community of 3,000 or fewer individuals that is economically disadvantaged, as determined by the State in which the community is located and based on criteria established by the President.

“(b) **ESTABLISHMENT OF PROGRAM.**—The President may establish a program to provide technical and financial assistance to States and local governments to assist in the implementation of

President.  
42 USC 5133.



predisaster hazard mitigation measures that are cost-effective and are designed to reduce injuries, loss of life, and damage and destruction of property, including damage to critical services and facilities under the jurisdiction of the States or local governments.

“(c) APPROVAL BY PRESIDENT.—If the President determines that a State or local government has identified natural disaster hazards in areas under its jurisdiction and has demonstrated the ability to form effective public-private natural disaster hazard mitigation partnerships, the President, using amounts in the National Predisaster Mitigation Fund established under subsection (i) (referred to in this section as the ‘Fund’), may provide technical and financial assistance to the State or local government to be used in accordance with subsection (e).

“(d) STATE RECOMMENDATIONS.—

“(1) IN GENERAL.—

“(A) RECOMMENDATIONS.—The Governor of each State may recommend to the President not fewer than five local governments to receive assistance under this section.

“(B) DEADLINE FOR SUBMISSION.—The recommendations under subparagraph (A) shall be submitted to the President not later than October 1, 2001, and each October 1st thereafter or such later date in the year as the President may establish.

“(C) CRITERIA.—In making recommendations under subparagraph (A), a Governor shall consider the criteria specified in subsection (g).

“(2) USE.—

“(A) IN GENERAL.—Except as provided in subparagraph (B), in providing assistance to local governments under this section, the President shall select from local governments recommended by the Governors under this subsection.

“(B) EXTRAORDINARY CIRCUMSTANCES.—In providing assistance to local governments under this section, the President may select a local government that has not been recommended by a Governor under this subsection if the President determines that extraordinary circumstances justify the selection and that making the selection will further the purpose of this section.

“(3) EFFECT OF FAILURE TO NOMINATE.—If a Governor of a State fails to submit recommendations under this subsection in a timely manner, the President may select, subject to the criteria specified in subsection (g), any local governments of the State to receive assistance under this section.

“(e) USES OF TECHNICAL AND FINANCIAL ASSISTANCE.—

“(1) IN GENERAL.—Technical and financial assistance provided under this section—

“(A) shall be used by States and local governments principally to implement predisaster hazard mitigation measures that are cost-effective and are described in proposals approved by the President under this section; and

“(B) may be used—

“(i) to support effective public-private natural disaster hazard mitigation partnerships;

“(ii) to improve the assessment of a community’s vulnerability to natural hazards; or

President.

“(iii) to establish hazard mitigation priorities, and an appropriate hazard mitigation plan, for a community.

“(2) DISSEMINATION.—A State or local government may use not more than 10 percent of the financial assistance received by the State or local government under this section for a fiscal year to fund activities to disseminate information regarding cost-effective mitigation technologies.

“(f) ALLOCATION OF FUNDS.—The amount of financial assistance made available to a State (including amounts made available to local governments of the State) under this section for a fiscal year—

“(1) shall be not less than the lesser of—

“(A) \$500,000; or

“(B) the amount that is equal to 1.0 percent of the total funds appropriated to carry out this section for the fiscal year;

“(2) shall not exceed 15 percent of the total funds described in paragraph (1)(B); and

“(3) shall be subject to the criteria specified in subsection (g).

“(g) CRITERIA FOR ASSISTANCE AWARDS.—In determining whether to provide technical and financial assistance to a State or local government under this section, the President shall take into account—

“(1) the extent and nature of the hazards to be mitigated;

“(2) the degree of commitment of the State or local government to reduce damages from future natural disasters;

“(3) the degree of commitment by the State or local government to support ongoing non-Federal support for the hazard mitigation measures to be carried out using the technical and financial assistance;

“(4) the extent to which the hazard mitigation measures to be carried out using the technical and financial assistance contribute to the mitigation goals and priorities established by the State;

“(5) the extent to which the technical and financial assistance is consistent with other assistance provided under this Act;

“(6) the extent to which prioritized, cost-effective mitigation activities that produce meaningful and definable outcomes are clearly identified;

“(7) if the State or local government has submitted a mitigation plan under section 322, the extent to which the activities identified under paragraph (6) are consistent with the mitigation plan;

“(8) the opportunity to fund activities that maximize net benefits to society;

“(9) the extent to which assistance will fund mitigation activities in small impoverished communities; and

“(10) such other criteria as the President establishes in consultation with State and local governments. President.

“(h) FEDERAL SHARE.—

“(1) IN GENERAL.—Financial assistance provided under this section may contribute up to 75 percent of the total cost of mitigation activities approved by the President.

“(2) SMALL IMPOVERISHED COMMUNITIES.—Notwithstanding paragraph (1), the President may contribute up to 90 percent of the total cost of a mitigation activity carried out in a small impoverished community.

“(i) NATIONAL PREDISASTER MITIGATION FUND.—

“(1) ESTABLISHMENT.—The President may establish in the Treasury of the United States a fund to be known as the ‘National Predisaster Mitigation Fund’, to be used in carrying out this section.

“(2) TRANSFERS TO FUND.—There shall be deposited in the Fund—

“(A) amounts appropriated to carry out this section, which shall remain available until expended; and

“(B) sums available from gifts, bequests, or donations of services or property received by the President for the purpose of predisaster hazard mitigation.

“(3) EXPENDITURES FROM FUND.—Upon request by the President, the Secretary of the Treasury shall transfer from the Fund to the President such amounts as the President determines are necessary to provide technical and financial assistance under this section.

“(4) INVESTMENT OF AMOUNTS.—

“(A) IN GENERAL.—The Secretary of the Treasury shall invest such portion of the Fund as is not, in the judgment of the Secretary of the Treasury, required to meet current withdrawals. Investments may be made only in interest-bearing obligations of the United States.

“(B) ACQUISITION OF OBLIGATIONS.—For the purpose of investments under subparagraph (A), obligations may be acquired—

“(i) on original issue at the issue price; or

“(ii) by purchase of outstanding obligations at the market price.

“(C) SALE OF OBLIGATIONS.—Any obligation acquired by the Fund may be sold by the Secretary of the Treasury at the market price.

“(D) CREDITS TO FUND.—The interest on, and the proceeds from the sale or redemption of, any obligations held in the Fund shall be credited to and form a part of the Fund.

“(E) TRANSFERS OF AMOUNTS.—

“(i) IN GENERAL.—The amounts required to be transferred to the Fund under this subsection shall be transferred at least monthly from the general fund of the Treasury to the Fund on the basis of estimates made by the Secretary of the Treasury.

“(ii) ADJUSTMENTS.—Proper adjustment shall be made in amounts subsequently transferred to the extent prior estimates were in excess of or less than the amounts required to be transferred.

“(j) LIMITATION ON TOTAL AMOUNT OF FINANCIAL ASSISTANCE.—The President shall not provide financial assistance under this section in an amount greater than the amount available in the Fund.

“(k) MULTHAZARD ADVISORY MAPS.—

“(1) DEFINITION OF MULTHAZARD ADVISORY MAP.—In this subsection, the term ‘multihazard advisory map’ means a map

on which hazard data concerning each type of natural disaster is identified simultaneously for the purpose of showing areas of hazard overlap.

“(2) DEVELOPMENT OF MAPS.—In consultation with States, local governments, and appropriate Federal agencies, the President shall develop multihazard advisory maps for areas, in not fewer than five States, that are subject to commonly recurring natural hazards (including flooding, hurricanes and severe winds, and seismic events). President.

“(3) USE OF TECHNOLOGY.—In developing multihazard advisory maps under this subsection, the President shall use, to the maximum extent practicable, the most cost-effective and efficient technology available.

“(4) USE OF MAPS.—

“(A) ADVISORY NATURE.—The multihazard advisory maps shall be considered to be advisory and shall not require the development of any new policy by, or impose any new policy on, any government or private entity.

“(B) AVAILABILITY OF MAPS.—The multihazard advisory maps shall be made available to the appropriate State and local governments for the purposes of—

“(i) informing the general public about the risks of natural hazards in the areas described in paragraph (2);

“(ii) supporting the activities described in subsection (e); and

“(iii) other public uses.

“(1) REPORT ON FEDERAL AND STATE ADMINISTRATION.—Not later than 18 months after the date of the enactment of this section, the President, in consultation with State and local governments, shall submit to Congress a report evaluating efforts to implement this section and recommending a process for transferring greater authority and responsibility for administering the assistance program established under this section to capable States. Deadline.

“(m) TERMINATION OF AUTHORITY.—The authority provided by this section terminates December 31, 2003.”

(b) CONFORMING AMENDMENT.—Title II of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5131 et seq.) is amended by striking the title heading and inserting the following:

## **“TITLE II—DISASTER PREPAREDNESS AND MITIGATION ASSISTANCE”.**

### **SEC. 103. INTERAGENCY TASK FORCE.**

Title II of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5131 et seq.) (as amended by section 102(a)) is amended by adding at the end the following:

### **“SEC. 204. INTERAGENCY TASK FORCE.**

42 USC 5134.

“(a) IN GENERAL.—The President shall establish a Federal interagency task force for the purpose of coordinating the implementation of predisaster hazard mitigation programs administered by the Federal Government.

“(b) CHAIRPERSON.—The Director of the Federal Emergency Management Agency shall serve as the chairperson of the task force.

“(c) MEMBERSHIP.—The membership of the task force shall include representatives of—

“(1) relevant Federal agencies;

“(2) State and local government organizations (including Indian tribes); and

“(3) the American Red Cross.”.

**SEC. 104. MITIGATION PLANNING; MINIMUM STANDARDS FOR PUBLIC AND PRIVATE STRUCTURES.**

(a) IN GENERAL.—Title III of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5141 et seq.) is amended by adding at the end the following:

42 USC 5165.

**“SEC. 322. MITIGATION PLANNING.**

“(a) REQUIREMENT OF MITIGATION PLAN.—As a condition of receipt of an increased Federal share for hazard mitigation measures under subsection (e), a State, local, or tribal government shall develop and submit for approval to the President a mitigation plan that outlines processes for identifying the natural hazards, risks, and vulnerabilities of the area under the jurisdiction of the government.

“(b) LOCAL AND TRIBAL PLANS.—Each mitigation plan developed by a local or tribal government shall—

“(1) describe actions to mitigate hazards, risks, and vulnerabilities identified under the plan; and

“(2) establish a strategy to implement those actions.

“(c) STATE PLANS.—The State process of development of a mitigation plan under this section shall—

“(1) identify the natural hazards, risks, and vulnerabilities of areas in the State;

“(2) support development of local mitigation plans;

“(3) provide for technical assistance to local and tribal governments for mitigation planning; and

“(4) identify and prioritize mitigation actions that the State will support, as resources become available.

“(d) FUNDING.—

“(1) IN GENERAL.—Federal contributions under section 404 may be used to fund the development and updating of mitigation plans under this section.

“(2) MAXIMUM FEDERAL CONTRIBUTION.—With respect to any mitigation plan, a State, local, or tribal government may use an amount of Federal contributions under section 404 not to exceed 7 percent of the amount of such contributions available to the government as of a date determined by the government.

“(e) INCREASED FEDERAL SHARE FOR HAZARD MITIGATION MEASURES.—

“(1) IN GENERAL.—If, at the time of the declaration of a major disaster, a State has in effect an approved mitigation plan under this section, the President may increase to 20 percent, with respect to the major disaster, the maximum percentage specified in the last sentence of section 404(a).

President.

“(2) FACTORS FOR CONSIDERATION.—In determining whether to increase the maximum percentage under paragraph (1), the President shall consider whether the State has established—

“(A) eligibility criteria for property acquisition and other types of mitigation measures;

“(B) requirements for cost effectiveness that are related to the eligibility criteria;

“(C) a system of priorities that is related to the eligibility criteria; and

“(D) a process by which an assessment of the effectiveness of a mitigation action may be carried out after the mitigation action is complete.

**“SEC. 323. MINIMUM STANDARDS FOR PUBLIC AND PRIVATE STRUCTURES.**

42 USC 5165a.

“(a) IN GENERAL.—As a condition of receipt of a disaster loan or grant under this Act—

“(1) the recipient shall carry out any repair or construction to be financed with the loan or grant in accordance with applicable standards of safety, decency, and sanitation and in conformity with applicable codes, specifications, and standards; and

“(2) the President may require safe land use and construction practices, after adequate consultation with appropriate State and local government officials.

“(b) EVIDENCE OF COMPLIANCE.—A recipient of a disaster loan or grant under this Act shall provide such evidence of compliance with this section as the President may require by regulation.”.

(b) LOSSES FROM STRAIGHT LINE WINDS.—The President shall increase the maximum percentage specified in the last sentence of section 404(a) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5170c(a)) from 15 percent to 20 percent with respect to any major disaster that is in the State of Minnesota and for which assistance is being provided as of the date of the enactment of this Act, except that additional assistance provided under this subsection shall not exceed \$6,000,000. The mitigation measures assisted under this subsection shall be related to losses in the State of Minnesota from straight line winds.

President.

(c) CONFORMING AMENDMENTS.—

(1) Section 404(a) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5170c(a)) is amended—

(A) in the second sentence, by striking “section 409” and inserting “section 322”; and

(B) in the third sentence, by striking “The total” and inserting “Subject to section 322, the total”.

(2) Section 409 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5176) is repealed.

## **TITLE II—STREAMLINING AND COST REDUCTION**

### **SEC. 201. TECHNICAL AMENDMENTS.**

Section 311 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5154) is amended in subsections (a)(1), (b), and (c) by striking “section 803 of the Public Works and Economic Development Act of 1965” each place it appears

and inserting “section 209(c)(2) of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3149(c)(2))”.

**SEC. 202. MANAGEMENT COSTS.**

(a) IN GENERAL.—Title III of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5141 et seq.) (as amended by section 104(a)) is amended by adding at the end the following:

42 USC 5165b.

**“SEC. 324. MANAGEMENT COSTS.**

“(a) DEFINITION OF MANAGEMENT COST.—In this section, the term ‘management cost’ includes any indirect cost, any administrative expense, and any other expense not directly chargeable to a specific project under a major disaster, emergency, or disaster preparedness or mitigation activity or measure.

Regulations.

“(b) ESTABLISHMENT OF MANAGEMENT COST RATES.—Notwithstanding any other provision of law (including any administrative rule or guidance), the President shall by regulation establish management cost rates, for grantees and subgrantees, that shall be used to determine contributions under this Act for management costs.

Deadline.

“(c) REVIEW.—The President shall review the management cost rates established under subsection (b) not later than 3 years after the date of establishment of the rates and periodically thereafter.”.

42 USC 5165b  
note.

(b) APPLICABILITY.—

(1) IN GENERAL.—Subject to paragraph (2), subsections (a) and (b) of section 324 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (as added by subsection (a)) shall apply to major disasters declared under that Act on or after the date of the enactment of this Act.

(2) INTERIM AUTHORITY.—Until the date on which the President establishes the management cost rates under section 324 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (as added by subsection (a)), section 406(f) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5172(f)) (as in effect on the day before the date of the enactment of this Act) shall be used to establish management cost rates.

**SEC. 203. PUBLIC NOTICE, COMMENT, AND CONSULTATION REQUIREMENTS.**

Title III of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5141 et seq.) (as amended by section 202(a)) is amended by adding at the end the following:

42 USC 5165c.

**“SEC. 325. PUBLIC NOTICE, COMMENT, AND CONSULTATION REQUIREMENTS.**

“(a) PUBLIC NOTICE AND COMMENT CONCERNING NEW OR MODIFIED POLICIES.—

President.

“(1) IN GENERAL.—The President shall provide for public notice and opportunity for comment before adopting any new or modified policy that—

“(A) governs implementation of the public assistance program administered by the Federal Emergency Management Agency under this Act; and

“(B) could result in a significant reduction of assistance under the program.



“(2) APPLICATION.—Any policy adopted under paragraph (1) shall apply only to a major disaster or emergency declared on or after the date on which the policy is adopted.

“(b) CONSULTATION CONCERNING INTERIM POLICIES.—

“(1) IN GENERAL.—Before adopting any interim policy under the public assistance program to address specific conditions that relate to a major disaster or emergency that has been declared under this Act, the President, to the maximum extent practicable, shall solicit the views and recommendations of grantees and subgrantees with respect to the major disaster or emergency concerning the potential interim policy, if the interim policy is likely—

“(A) to result in a significant reduction of assistance to applicants for the assistance with respect to the major disaster or emergency; or

“(B) to change the terms of a written agreement to which the Federal Government is a party concerning the declaration of the major disaster or emergency.

“(2) NO LEGAL RIGHT OF ACTION.—Nothing in this subsection confers a legal right of action on any party.

“(c) PUBLIC ACCESS.—The President shall promote public access to policies governing the implementation of the public assistance program.”. President.

#### SEC. 204. STATE ADMINISTRATION OF HAZARD MITIGATION GRANT PROGRAM.

Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5170c) is amended by adding at the end the following:

“(c) PROGRAM ADMINISTRATION BY STATES.—

“(1) IN GENERAL.—A State desiring to administer the hazard mitigation grant program established by this section with respect to hazard mitigation assistance in the State may submit to the President an application for the delegation of the authority to administer the program.

“(2) CRITERIA.—The President, in consultation and coordination with States and local governments, shall establish criteria for the approval of applications submitted under paragraph (1). The criteria shall include, at a minimum—

“(A) the demonstrated ability of the State to manage the grant program under this section;

“(B) there being in effect an approved mitigation plan under section 322; and

“(C) a demonstrated commitment to mitigation activities.

“(3) APPROVAL.—The President shall approve an application submitted under paragraph (1) that meets the criteria established under paragraph (2). President.

“(4) WITHDRAWAL OF APPROVAL.—If, after approving an application of a State submitted under paragraph (1), the President determines that the State is not administering the hazard mitigation grant program established by this section in a manner satisfactory to the President, the President shall withdraw the approval.

“(5) AUDITS.—The President shall provide for periodic audits of the hazard mitigation grant programs administered by States under this subsection.”. President.

**SEC. 205. ASSISTANCE TO REPAIR, RESTORE, RECONSTRUCT, OR REPLACE DAMAGED FACILITIES.**

(a) CONTRIBUTIONS.—Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5172) is amended by striking subsection (a) and inserting the following:

“(a) CONTRIBUTIONS.—

“(1) IN GENERAL.—The President may make contributions—

“(A) to a State or local government for the repair, restoration, reconstruction, or replacement of a public facility damaged or destroyed by a major disaster and for associated expenses incurred by the government; and

“(B) subject to paragraph (3), to a person that owns or operates a private nonprofit facility damaged or destroyed by a major disaster for the repair, restoration, reconstruction, or replacement of the facility and for associated expenses incurred by the person.

“(2) ASSOCIATED EXPENSES.—For the purposes of this section, associated expenses shall include—

“(A) the costs of mobilizing and employing the National Guard for performance of eligible work;

“(B) the costs of using prison labor to perform eligible work, including wages actually paid, transportation to a worksite, and extraordinary costs of guards, food, and lodging; and

“(C) base and overtime wages for the employees and extra hires of a State, local government, or person described in paragraph (1) that perform eligible work, plus fringe benefits on such wages to the extent that such benefits were being paid before the major disaster.

“(3) CONDITIONS FOR ASSISTANCE TO PRIVATE NONPROFIT FACILITIES.—

“(A) IN GENERAL.—The President may make contributions to a private nonprofit facility under paragraph (1)(B) only if—

“(i) the facility provides critical services (as defined by the President) in the event of a major disaster; or

“(ii) the owner or operator of the facility—

“(I) has applied for a disaster loan under section 7(b) of the Small Business Act (15 U.S.C. 636(b)); and

“(II)(aa) has been determined to be ineligible for such a loan; or

“(bb) has obtained such a loan in the maximum amount for which the Small Business Administration determines the facility is eligible.

“(B) DEFINITION OF CRITICAL SERVICES.—In this paragraph, the term ‘critical services’ includes power, water (including water provided by an irrigation organization or facility), sewer, wastewater treatment, communications, and emergency medical care.

“(4) NOTIFICATION TO CONGRESS.—Before making any contribution under this section in an amount greater than \$20,000,000, the President shall notify—

“(A) the Committee on Environment and Public Works of the Senate;

“(B) the Committee on Transportation and Infrastructure of the House of Representatives;

“(C) the Committee on Appropriations of the Senate; and

“(D) the Committee on Appropriations of the House of Representatives.”

(b) **FEDERAL SHARE.**—Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5172) is amended by striking subsection (b) and inserting the following:

“(b) **FEDERAL SHARE.**—

“(1) **MINIMUM FEDERAL SHARE.**—Except as provided in paragraph (2), the Federal share of assistance under this section shall be not less than 75 percent of the eligible cost of repair, restoration, reconstruction, or replacement carried out under this section.

“(2) **REDUCED FEDERAL SHARE.**—The President shall promulgate regulations to reduce the Federal share of assistance under this section to not less than 25 percent in the case of the repair, restoration, reconstruction, or replacement of any eligible public facility or private nonprofit facility following an event associated with a major disaster—

President.  
Regulations.

“(A) that has been damaged, on more than one occasion within the preceding 10-year period, by the same type of event; and

“(B) the owner of which has failed to implement appropriate mitigation measures to address the hazard that caused the damage to the facility.”

(c) **LARGE IN-LIEU CONTRIBUTIONS.**—Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5172) is amended by striking subsection (c) and inserting the following:

“(c) **LARGE IN-LIEU CONTRIBUTIONS.**—

“(1) **FOR PUBLIC FACILITIES.**—

“(A) **IN GENERAL.**—In any case in which a State or local government determines that the public welfare would not best be served by repairing, restoring, reconstructing, or replacing any public facility owned or controlled by the State or local government, the State or local government may elect to receive, in lieu of a contribution under subsection (a)(1)(A), a contribution in an amount equal to 75 percent of the Federal share of the Federal estimate of the cost of repairing, restoring, reconstructing, or replacing the facility and of management expenses.

“(B) **AREAS WITH UNSTABLE SOIL.**—In any case in which a State or local government determines that the public welfare would not best be served by repairing, restoring, reconstructing, or replacing any public facility owned or controlled by the State or local government because soil instability in the disaster area makes repair, restoration, reconstruction, or replacement infeasible, the State or local government may elect to receive, in lieu of a contribution under subsection (a)(1)(A), a contribution in an amount equal to 90 percent of the Federal share of the Federal estimate of the cost of repairing, restoring, reconstructing, or replacing the facility and of management expenses.

“(C) **USE OF FUNDS.**—Funds contributed to a State or local government under this paragraph may be used—

“(i) to repair, restore, or expand other selected public facilities;

“(ii) to construct new facilities; or

“(iii) to fund hazard mitigation measures that the State or local government determines to be necessary to meet a need for governmental services and functions in the area affected by the major disaster.

“(D) LIMITATIONS.—Funds made available to a State or local government under this paragraph may not be used for—

“(i) any public facility located in a regulatory floodway (as defined in section 59.1 of title 44, Code of Federal Regulations (or a successor regulation)); or

“(ii) any uninsured public facility located in a special flood hazard area identified by the Director of the Federal Emergency Management Agency under the National Flood Insurance Act of 1968 (42 U.S.C. 4001 et seq.).

“(2) FOR PRIVATE NONPROFIT FACILITIES.—

“(A) IN GENERAL.—In any case in which a person that owns or operates a private nonprofit facility determines that the public welfare would not best be served by repairing, restoring, reconstructing, or replacing the facility, the person may elect to receive, in lieu of a contribution under subsection (a)(1)(B), a contribution in an amount equal to 75 percent of the Federal share of the Federal estimate of the cost of repairing, restoring, reconstructing, or replacing the facility and of management expenses.

“(B) USE OF FUNDS.—Funds contributed to a person under this paragraph may be used—

“(i) to repair, restore, or expand other selected private nonprofit facilities owned or operated by the person;

“(ii) to construct new private nonprofit facilities to be owned or operated by the person; or

“(iii) to fund hazard mitigation measures that the person determines to be necessary to meet a need for the person’s services and functions in the area affected by the major disaster.

“(C) LIMITATIONS.—Funds made available to a person under this paragraph may not be used for—

“(i) any private nonprofit facility located in a regulatory floodway (as defined in section 59.1 of title 44, Code of Federal Regulations (or a successor regulation)); or

“(ii) any uninsured private nonprofit facility located in a special flood hazard area identified by the Director of the Federal Emergency Management Agency under the National Flood Insurance Act of 1968 (42 U.S.C. 4001 et seq.).”.

(d) ELIGIBLE COST.—

(1) IN GENERAL.—Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5172) is amended by striking subsection (e) and inserting the following:

“(e) ELIGIBLE COST.—

“(1) DETERMINATION.—

“(A) IN GENERAL.—For the purposes of this section, the President shall estimate the eligible cost of repairing, restoring, reconstructing, or replacing a public facility or private nonprofit facility—

“(i) on the basis of the design of the facility as the facility existed immediately before the major disaster; and

“(ii) in conformity with codes, specifications, and standards (including floodplain management and hazard mitigation criteria required by the President or under the Coastal Barrier Resources Act (16 U.S.C. 3501 et seq.)) applicable at the time at which the disaster occurred.

“(B) COST ESTIMATION PROCEDURES.—

“(i) IN GENERAL.—Subject to paragraph (2), the President shall use the cost estimation procedures established under paragraph (3) to determine the eligible cost under this subsection.

“(ii) APPLICABILITY.—The procedures specified in this paragraph and paragraph (2) shall apply only to projects the eligible cost of which is equal to or greater than the amount specified in section 422.

“(2) MODIFICATION OF ELIGIBLE COST.—

“(A) ACTUAL COST GREATER THAN CEILING PERCENTAGE OF ESTIMATED COST.—In any case in which the actual cost of repairing, restoring, reconstructing, or replacing a facility under this section is greater than the ceiling percentage established under paragraph (3) of the cost estimated under paragraph (1), the President may determine that the eligible cost includes a portion of the actual cost of the repair, restoration, reconstruction, or replacement that exceeds the cost estimated under paragraph (1).

“(B) ACTUAL COST LESS THAN ESTIMATED COST.—

“(i) GREATER THAN OR EQUAL TO FLOOR PERCENTAGE OF ESTIMATED COST.—In any case in which the actual cost of repairing, restoring, reconstructing, or replacing a facility under this section is less than 100 percent of the cost estimated under paragraph (1), but is greater than or equal to the floor percentage established under paragraph (3) of the cost estimated under paragraph (1), the State or local government or person receiving funds under this section shall use the excess funds to carry out cost-effective activities that reduce the risk of future damage, hardship, or suffering from a major disaster.

“(ii) LESS THAN FLOOR PERCENTAGE OF ESTIMATED COST.—In any case in which the actual cost of repairing, restoring, reconstructing, or replacing a facility under this section is less than the floor percentage established under paragraph (3) of the cost estimated under paragraph (1), the State or local government or person receiving assistance under this section shall reimburse the President in the amount of the difference.

“(C) NO EFFECT ON APPEALS PROCESS.—Nothing in this paragraph affects any right of appeal under section 423.

“(3) EXPERT PANEL.—

“(A) ESTABLISHMENT.—Not later than 18 months after the date of the enactment of this paragraph, the President, acting through the Director of the Federal Emergency Management Agency, shall establish an expert panel, which shall include representatives from the construction industry and State and local government.

“(B) DUTIES.—The expert panel shall develop recommendations concerning—

“(i) procedures for estimating the cost of repairing, restoring, reconstructing, or replacing a facility consistent with industry practices; and

“(ii) the ceiling and floor percentages referred to in paragraph (2).

President.

“(C) REGULATIONS.—Taking into account the recommendations of the expert panel under subparagraph (B), the President shall promulgate regulations that establish—

“(i) cost estimation procedures described in subparagraph (B)(i); and

“(ii) the ceiling and floor percentages referred to in paragraph (2).

Deadline.

“(D) REVIEW BY PRESIDENT.—Not later than 2 years after the date of promulgation of regulations under subparagraph (C) and periodically thereafter, the President shall review the cost estimation procedures and the ceiling and floor percentages established under this paragraph.

Deadline.

“(E) REPORT TO CONGRESS.—Not later than 1 year after the date of promulgation of regulations under subparagraph (C), 3 years after that date, and at the end of each 2-year period thereafter, the expert panel shall submit to Congress a report on the appropriateness of the cost estimation procedures.

“(4) SPECIAL RULE.—In any case in which the facility being repaired, restored, reconstructed, or replaced under this section was under construction on the date of the major disaster, the cost of repairing, restoring, reconstructing, or replacing the facility shall include, for the purposes of this section, only those costs that, under the contract for the construction, are the owner’s responsibility and not the contractor’s responsibility.”.

42 USC 5172  
note.

(2) EFFECTIVE DATE.—The amendment made by paragraph (1) takes effect on the date of the enactment of this Act and applies to funds appropriated after the date of the enactment of this Act, except that paragraph (1) of section 406(e) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (as amended by paragraph (1)) takes effect on the date on which the cost estimation procedures established under paragraph (3) of that section take effect.

(e) CONFORMING AMENDMENT.—Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5172) is amended by striking subsection (f).

**SEC. 206. FEDERAL ASSISTANCE TO INDIVIDUALS AND HOUSEHOLDS.**

(a) IN GENERAL.—Section 408 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5174) is amended to read as follows:

**“SEC. 408. FEDERAL ASSISTANCE TO INDIVIDUALS AND HOUSEHOLDS.**

**“(a) IN GENERAL.—**

**“(1) PROVISION OF ASSISTANCE.—**In accordance with this section, the President, in consultation with the Governor of a State, may provide financial assistance, and, if necessary, direct services, to individuals and households in the State who, as a direct result of a major disaster, have necessary expenses and serious needs in cases in which the individuals and households are unable to meet such expenses or needs through other means.

**“(2) RELATIONSHIP TO OTHER ASSISTANCE.—**Under paragraph (1), an individual or household shall not be denied assistance under paragraph (1), (3), or (4) of subsection (c) solely on the basis that the individual or household has not applied for or received any loan or other financial assistance from the Small Business Administration or any other Federal agency.

**“(b) HOUSING ASSISTANCE.—**

**“(1) ELIGIBILITY.—**The President may provide financial or other assistance under this section to individuals and households to respond to the disaster-related housing needs of individuals and households who are displaced from their predisaster primary residences or whose predisaster primary residences are rendered uninhabitable as a result of damage caused by a major disaster.

**“(2) DETERMINATION OF APPROPRIATE TYPES OF ASSISTANCE.—**

**“(A) IN GENERAL.—**The President shall determine appropriate types of housing assistance to be provided under this section to individuals and households described in subsection (a)(1) based on considerations of cost effectiveness, convenience to the individuals and households, and such other factors as the President may consider appropriate. President.

**“(B) MULTIPLE TYPES OF ASSISTANCE.—**One or more types of housing assistance may be made available under this section, based on the suitability and availability of the types of assistance, to meet the needs of individuals and households in the particular disaster situation.

**“(c) TYPES OF HOUSING ASSISTANCE.—**

**“(1) TEMPORARY HOUSING.—**

**“(A) FINANCIAL ASSISTANCE.—**

**“(i) IN GENERAL.—**The President may provide financial assistance to individuals or households to rent alternate housing accommodations, existing rental units, manufactured housing, recreational vehicles, or other readily fabricated dwellings.

**“(ii) AMOUNT.—**The amount of assistance under clause (i) shall be based on the fair market rent for the accommodation provided plus the cost of any transportation, utility hookups, or unit installation not provided directly by the President.

**“(B) DIRECT ASSISTANCE.—**

**“(i) IN GENERAL.—**The President may provide temporary housing units, acquired by purchase or lease, directly to individuals or households who, because of a lack of available housing resources, would be unable



to make use of the assistance provided under subparagraph (A).

“(ii) PERIOD OF ASSISTANCE.—The President may not provide direct assistance under clause (i) with respect to a major disaster after the end of the 18-month period beginning on the date of the declaration of the major disaster by the President, except that the President may extend that period if the President determines that due to extraordinary circumstances an extension would be in the public interest.

“(iii) COLLECTION OF RENTAL CHARGES.—After the end of the 18-month period referred to in clause (ii), the President may charge fair market rent for each temporary housing unit provided.

“(2) REPAIRS.—

“(A) IN GENERAL.—The President may provide financial assistance for—

“(i) the repair of owner-occupied private residences, utilities, and residential infrastructure (such as a private access route) damaged by a major disaster to a safe and sanitary living or functioning condition; and

“(ii) eligible hazard mitigation measures that reduce the likelihood of future damage to such residences, utilities, or infrastructure.

“(B) RELATIONSHIP TO OTHER ASSISTANCE.—A recipient of assistance provided under this paragraph shall not be required to show that the assistance can be met through other means, except insurance proceeds.

“(C) MAXIMUM AMOUNT OF ASSISTANCE.—The amount of assistance provided to a household under this paragraph shall not exceed \$5,000, as adjusted annually to reflect changes in the Consumer Price Index for All Urban Consumers published by the Department of Labor.

“(3) REPLACEMENT.—

“(A) IN GENERAL.—The President may provide financial assistance for the replacement of owner-occupied private residences damaged by a major disaster.

“(B) MAXIMUM AMOUNT OF ASSISTANCE.—The amount of assistance provided to a household under this paragraph shall not exceed \$10,000, as adjusted annually to reflect changes in the Consumer Price Index for All Urban Consumers published by the Department of Labor.

“(C) APPLICABILITY OF FLOOD INSURANCE REQUIREMENT.—With respect to assistance provided under this paragraph, the President may not waive any provision of Federal law requiring the purchase of flood insurance as a condition of the receipt of Federal disaster assistance.

“(4) PERMANENT HOUSING CONSTRUCTION.—The President may provide financial assistance or direct assistance to individuals or households to construct permanent housing in insular areas outside the continental United States and in other remote locations in cases in which—

“(A) no alternative housing resources are available; and

“(B) the types of temporary housing assistance described in paragraph (1) are unavailable, infeasible, or not cost-effective.

“(d) TERMS AND CONDITIONS RELATING TO HOUSING ASSISTANCE.—

“(1) SITES.—

“(A) IN GENERAL.—Any readily fabricated dwelling provided under this section shall, whenever practicable, be located on a site that—

“(i) is complete with utilities; and

“(ii) is provided by the State or local government, by the owner of the site, or by the occupant who was displaced by the major disaster.

“(B) SITES PROVIDED BY THE PRESIDENT.—A readily fabricated dwelling may be located on a site provided by the President if the President determines that such a site would be more economical or accessible.

“(2) DISPOSAL OF UNITS.—

“(A) SALE TO OCCUPANTS.—

“(i) IN GENERAL.—Notwithstanding any other provision of law, a temporary housing unit purchased under this section by the President for the purpose of housing disaster victims may be sold directly to the individual or household who is occupying the unit if the individual or household lacks permanent housing.

“(ii) SALE PRICE.—A sale of a temporary housing unit under clause (i) shall be at a price that is fair and equitable.

“(iii) DEPOSIT OF PROCEEDS.—Notwithstanding any other provision of law, the proceeds of a sale under clause (i) shall be deposited in the appropriate Disaster Relief Fund account.

“(iv) HAZARD AND FLOOD INSURANCE.—A sale of a temporary housing unit under clause (i) shall be made on the condition that the individual or household purchasing the housing unit agrees to obtain and maintain hazard and flood insurance on the housing unit.

“(v) USE OF GSA SERVICES.—The President may use the services of the General Services Administration to accomplish a sale under clause (i).

“(B) OTHER METHODS OF DISPOSAL.—If not disposed of under subparagraph (A), a temporary housing unit purchased under this section by the President for the purpose of housing disaster victims—

“(i) may be sold to any person; or

“(ii) may be sold, transferred, donated, or otherwise made available directly to a State or other governmental entity or to a voluntary organization for the sole purpose of providing temporary housing to disaster victims in major disasters and emergencies if, as a condition of the sale, transfer, or donation, the State, other governmental agency, or voluntary organization agrees—

“(I) to comply with the nondiscrimination provisions of section 308; and

“(II) to obtain and maintain hazard and flood insurance on the housing unit.

“(e) FINANCIAL ASSISTANCE TO ADDRESS OTHER NEEDS.—

“(1) MEDICAL, DENTAL, AND FUNERAL EXPENSES.—The President, in consultation with the Governor of a State, may provide financial assistance under this section to an individual or household in the State who is adversely affected by a major disaster to meet disaster-related medical, dental, and funeral expenses.

“(2) PERSONAL PROPERTY, TRANSPORTATION, AND OTHER EXPENSES.—The President, in consultation with the Governor of a State, may provide financial assistance under this section to an individual or household described in paragraph (1) to address personal property, transportation, and other necessary expenses or serious needs resulting from the major disaster.

“(f) STATE ROLE.—

“(1) FINANCIAL ASSISTANCE TO ADDRESS OTHER NEEDS.—

“(A) GRANT TO STATE.—Subject to subsection (g), a Governor may request a grant from the President to provide financial assistance to individuals and households in the State under subsection (e).

“(B) ADMINISTRATIVE COSTS.—A State that receives a grant under subparagraph (A) may expend not more than 5 percent of the amount of the grant for the administrative costs of providing financial assistance to individuals and households in the State under subsection (e).

“(2) ACCESS TO RECORDS.—In providing assistance to individuals and households under this section, the President shall provide for the substantial and ongoing involvement of the States in which the individuals and households are located, including by providing to the States access to the electronic records of individuals and households receiving assistance under this section in order for the States to make available any additional State and local assistance to the individuals and households.

“(g) COST SHARING.—

“(1) FEDERAL SHARE.—Except as provided in paragraph (2), the Federal share of the costs eligible to be paid using assistance provided under this section shall be 100 percent.

“(2) FINANCIAL ASSISTANCE TO ADDRESS OTHER NEEDS.—In the case of financial assistance provided under subsection (e)—

“(A) the Federal share shall be 75 percent; and

“(B) the non-Federal share shall be paid from funds made available by the State.

“(h) MAXIMUM AMOUNT OF ASSISTANCE.—

“(1) IN GENERAL.—No individual or household shall receive financial assistance greater than \$25,000 under this section with respect to a single major disaster.

“(2) ADJUSTMENT OF LIMIT.—The limit established under paragraph (1) shall be adjusted annually to reflect changes in the Consumer Price Index for All Urban Consumers published by the Department of Labor.

President.

“(i) RULES AND REGULATIONS.—The President shall prescribe rules and regulations to carry out this section, including criteria, standards, and procedures for determining eligibility for assistance.”.

“(b) CONFORMING AMENDMENT.—Section 502(a)(6) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5192(a)(6)) is amended by striking “temporary housing”.

(c) **ELIMINATION OF INDIVIDUAL AND FAMILY GRANT PROGRAMS.**—Section 411 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5178) is repealed.

(d) **EFFECTIVE DATE.**—The amendments made by this section take effect 18 months after the date of the enactment of this Act. 42 USC 5174 note.

**SEC. 207. COMMUNITY DISASTER LOANS.**

Section 417 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5184) is amended—

(1) by striking “(a) The President” and inserting the following:

“(a) **IN GENERAL.**—The President”;

(2) by striking “The amount” and inserting the following:

“(b) **AMOUNT.**—The amount”;

(3) by striking “Repayment” and inserting the following:

“(c) **REPAYMENT.**—

“(1) **CANCELLATION.**—Repayment”;

(4) by striking “(b) Any loans” and inserting the following:

“(d) **EFFECT ON OTHER ASSISTANCE.**—Any loans”;

(5) in subsection (b) (as designated by paragraph (2))—

(A) by striking “and shall” and inserting “shall”; and

(B) by inserting before the period at the end the following: “, and shall not exceed \$5,000,000”; and

(6) in subsection (c) (as designated by paragraph (3)), by

adding at the end the following:

“(2) **CONDITION ON CONTINUING ELIGIBILITY.**—A local government shall not be eligible for further assistance under this section during any period in which the local government is in arrears with respect to a required repayment of a loan under this section.”.

**SEC. 208. REPORT ON STATE MANAGEMENT OF SMALL DISASTERS INITIATIVE.**

42 USC 5121 note.

Not later than 3 years after the date of the enactment of this Act, the President shall submit to Congress a report describing the results of the State Management of Small Disasters Initiative, including—

Deadline.

(1) identification of any administrative or financial benefits of the initiative; and

(2) recommendations concerning the conditions, if any, under which States should be allowed the option to administer parts of the assistance program under section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5172).

**SEC. 209. STUDY REGARDING COST REDUCTION.**

42 USC 5121 note.  
Deadline.

Not later than 3 years after the date of the enactment of this Act, the Director of the Congressional Budget Office shall complete a study estimating the reduction in Federal disaster assistance that has resulted and is likely to result from the enactment of this Act.

## TITLE III—MISCELLANEOUS

### SEC. 301. TECHNICAL CORRECTION OF SHORT TITLE.

The first section of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 note) is amended to read as follows:

#### “SECTION 1. SHORT TITLE.

“This Act may be cited as the ‘Robert T. Stafford Disaster Relief and Emergency Assistance Act’.”.

### SEC. 302. DEFINITIONS.

Section 102 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5122) is amended—

(1) in each of paragraphs (3) and (4), by striking “the Northern” and all that follows through “Pacific Islands” and inserting “and the Commonwealth of the Northern Mariana Islands”;

(2) by striking paragraph (6) and inserting the following:  
“(6) LOCAL GOVERNMENT.—The term ‘local government’ means—

“(A) a county, municipality, city, town, township, local public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government;

“(B) an Indian tribe or authorized tribal organization, or Alaska Native village or organization; and

“(C) a rural community, unincorporated town or village, or other public entity, for which an application for assistance is made by a State or political subdivision of a State.”; and

(3) in paragraph (9), by inserting “irrigation,” after “utility,”.

### SEC. 303. FIRE MANAGEMENT ASSISTANCE.

(a) IN GENERAL.—Section 420 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5187) is amended to read as follows:

#### “SEC. 420. FIRE MANAGEMENT ASSISTANCE.

“(a) IN GENERAL.—The President is authorized to provide assistance, including grants, equipment, supplies, and personnel, to any State or local government for the mitigation, management, and control of any fire on public or private forest land or grassland that threatens such destruction as would constitute a major disaster.

President.

“(b) COORDINATION WITH STATE AND TRIBAL DEPARTMENTS OF FORESTRY.—In providing assistance under this section, the President shall coordinate with State and tribal departments of forestry.

“(c) ESSENTIAL ASSISTANCE.—In providing assistance under this section, the President may use the authority provided under section 403.

“(d) RULES AND REGULATIONS.—The President shall prescribe such rules and regulations as are necessary to carry out this section.” President.

(b) EFFECTIVE DATE.—The amendment made by subsection (a) takes effect 1 year after the date of the enactment of this Act. 42 USC 5187 note.

**SEC. 304. DISASTER GRANT CLOSEOUT PROCEDURES.** 42 USC 5205.

Title VII of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5101 et seq.) is amended by adding at the end the following:

**“SEC. 705. DISASTER GRANT CLOSEOUT PROCEDURES.**

“(a) STATUTE OF LIMITATIONS.—

“(1) IN GENERAL.—Except as provided in paragraph (2), no administrative action to recover any payment made to a State or local government for disaster or emergency assistance under this Act shall be initiated in any forum after the date that is 3 years after the date of transmission of the final expenditure report for the disaster or emergency.

“(2) FRAUD EXCEPTION.—The limitation under paragraph (1) shall apply unless there is evidence of civil or criminal fraud.

“(b) REBUTTAL OF PRESUMPTION OF RECORD MAINTENANCE.—

“(1) IN GENERAL.—In any dispute arising under this section after the date that is 3 years after the date of transmission of the final expenditure report for the disaster or emergency, there shall be a presumption that accounting records were maintained that adequately identify the source and application of funds provided for financially assisted activities.

“(2) AFFIRMATIVE EVIDENCE.—The presumption described in paragraph (1) may be rebutted only on production of affirmative evidence that the State or local government did not maintain documentation described in that paragraph.

“(3) INABILITY TO PRODUCE DOCUMENTATION.—The inability of the Federal, State, or local government to produce source documentation supporting expenditure reports later than 3 years after the date of transmission of the final expenditure report shall not constitute evidence to rebut the presumption described in paragraph (1).

“(4) RIGHT OF ACCESS.—The period during which the Federal, State, or local government has the right to access source documentation shall not be limited to the required 3-year retention period referred to in paragraph (3), but shall last as long as the records are maintained.

“(c) BINDING NATURE OF GRANT REQUIREMENTS.—A State or local government shall not be liable for reimbursement or any other penalty for any payment made under this Act if—

“(1) the payment was authorized by an approved agreement specifying the costs;

“(2) the costs were reasonable; and

“(3) the purpose of the grant was accomplished.”.

**SEC. 305. PUBLIC SAFETY OFFICER BENEFITS FOR CERTAIN FEDERAL AND STATE EMPLOYEES.**

(a) IN GENERAL.—Section 1204 of the Omnibus Crime Control and Safe Streets Act of 1968 (42 U.S.C. 3796b) is amended by striking paragraph (7) and inserting the following:

“(7) ‘public safety officer’ means—

“(A) an individual serving a public agency in an official capacity, with or without compensation, as a law enforcement officer, as a firefighter, or as a member of a rescue squad or ambulance crew;

“(B) an employee of the Federal Emergency Management Agency who is performing official duties of the Agency in an area, if those official duties—

“(i) are related to a major disaster or emergency that has been, or is later, declared to exist with respect to the area under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.); and

“(ii) are determined by the Director of the Federal Emergency Management Agency to be hazardous duties; or

“(C) an employee of a State, local, or tribal emergency management or civil defense agency who is performing official duties in cooperation with the Federal Emergency Management Agency in an area, if those official duties—

“(i) are related to a major disaster or emergency that has been, or is later, declared to exist with respect to the area under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.); and

“(ii) are determined by the head of the agency to be hazardous duties.”.

42 USC 3796b  
note.

(b) **EFFECTIVE DATE.**—The amendment made by subsection (a) applies only to employees described in subparagraphs (B) and (C) of section 1204(7) of the Omnibus Crime Control and Safe Streets Act of 1968 (as amended by subsection (a)) who are injured or who die in the line of duty on or after the date of the enactment of this Act.

42 USC 5206.

**SEC. 306. BUY AMERICAN.**

(a) **COMPLIANCE WITH BUY AMERICAN ACT.**—No funds authorized to be appropriated under this Act or any amendment made by this Act may be expended by an entity unless the entity, in expending the funds, complies with the Buy American Act (41 U.S.C. 10a et seq.).

(b) **DEBARMENT OF PERSONS CONVICTED OF FRAUDULENT USE OF “MADE IN AMERICA” LABELS.**—

Deadline.

(1) **IN GENERAL.**—If the Director of the Federal Emergency Management Agency determines that a person has been convicted of intentionally affixing a label bearing a “Made in America” inscription to any product sold in or shipped to the United States that is not made in America, the Director shall determine, not later than 90 days after determining that the person has been so convicted, whether the person should be debarred from contracting under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.).

(2) **DEFINITION OF DEBAR.**—In this subsection, the term “debar” has the meaning given the term in section 2393(c) of title 10, United States Code.

**SEC. 307. TREATMENT OF CERTAIN REAL PROPERTY.**

(a) **IN GENERAL.**—Notwithstanding the National Flood Insurance Act of 1968 (42 U.S.C. 4001 et seq.), the Flood Disaster



Protection Act of 1973 (42 U.S.C. 4002 et seq.), or any other provision of law, or any flood risk zone identified, delineated, or established under any such law (by flood insurance rate map or otherwise), the real property described in subsection (b) shall not be considered to be, or to have been, located in any area having special flood hazards (including any floodway or floodplain).

(b) **REAL PROPERTY.**—The real property described in this subsection is all land and improvements on the land located in the Maple Terrace Subdivisions in the City of Sycamore, DeKalb County, Illinois, including—

- (1) Maple Terrace Phase I;
- (2) Maple Terrace Phase II;
- (3) Maple Terrace Phase III Unit 1;
- (4) Maple Terrace Phase III Unit 2;
- (5) Maple Terrace Phase III Unit 3;
- (6) Maple Terrace Phase IV Unit 1;
- (7) Maple Terrace Phase IV Unit 2; and
- (8) Maple Terrace Phase IV Unit 3.

(c) **REVISION OF FLOOD INSURANCE RATE LOT MAPS.**—As soon as practicable after the date of the enactment of this Act, the Director of the Federal Emergency Management Agency shall revise the appropriate flood insurance rate lot maps of the agency to reflect the treatment under subsection (a) of the real property described in subsection (b).

**SEC. 308. STUDY OF PARTICIPATION BY INDIAN TRIBES IN EMERGENCY MANAGEMENT.**

42 USC 5121  
note.

(a) **DEFINITION OF INDIAN TRIBE.**—In this section, the term “Indian tribe” has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b).

(b) **STUDY.**—

(1) **IN GENERAL.**—The Director of the Federal Emergency Management Agency shall conduct a study of participation by Indian tribes in emergency management.

(2) **REQUIRED ELEMENTS.**—The study shall—

(A) survey participation by Indian tribes in training, predisaster and postdisaster mitigation, disaster preparedness, and disaster recovery programs at the Federal and State levels; and

(B) review and assess the capacity of Indian tribes to participate in cost-shared emergency management programs and to participate in the management of the programs.

(3) **CONSULTATION.**—In conducting the study, the Director shall consult with Indian tribes.

(c) **REPORT.**—Not later than 1 year after the date of the enactment of this Act, the Director shall submit a report on the study under subsection (b) to—

Deadline.

(1) the Committee on Environment and Public Works of the Senate;

(2) the Committee on Transportation and Infrastructure of the House of Representatives;

(3) the Committee on Appropriations of the Senate; and

(4) the Committee on Appropriations of the House of Representatives.

Approved October 30, 2000.

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LEGISLATIVE HISTORY—H.R. 707 (S. 1691):

HOUSE REPORTS: No. 106–40 (Comm. on Transportation and Infrastructure).

SENATE REPORTS: No. 106–295 accompanying S. 1691 (Comm. on Environment and Public Works).

CONGRESSIONAL RECORD:

Vol. 145 (1999): Mar. 4, considered and passed House.

Vol. 146 (2000): July 19, considered and passed Senate, amended.

Oct. 3, House concurred in Senate amendment with an amendment.

Oct. 5, Senate concurred in House amendment with an amendment.

Oct. 10, House concurred in Senate amendment.



## **ANNEX B. REGULATIONS**

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The Disaster Mitigation Act of 2000 (P.L. 106-390) facilitates a new and revitalized approach to mitigation planning. DMA 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions (Section 409) and replacing them with a new set of mitigation plan requirements (Section 322). This new section emphasizes the need for state, Tribal, and local entities to closely coordinate mitigation planning and implementation efforts. The following pages provide a description of the Disaster Mitigation Act of 2000, as well as the Interim Final Rule for mitigation planning.



# Federal Register

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**Tuesday,  
February 26, 2002**

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## **Part III**

## **Federal Emergency Management Agency**

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**44 CFR Parts 201 and 206**

**Hazard Mitigation Planning and Hazard  
Mitigation Grant Program; Interim Final  
Rule**

**FEDERAL EMERGENCY  
MANAGEMENT AGENCY****44 CFR Parts 201 and 206**

RIN 3067-AD22

**Hazard Mitigation Planning and Hazard  
Mitigation Grant Program****AGENCY:** Federal Emergency  
Management Agency.**ACTION:** Interim final rule.

**SUMMARY:** This rule addresses State mitigation planning, identifies new local mitigation planning requirements, authorizes Hazard Mitigation Grant Program (HMGP) funds for planning activities, and increases the amount of HMGP funds available to States that develop a comprehensive, enhanced mitigation plan. This rule also requires that repairs or construction funded by a disaster loan or grant must be carried out in accordance with applicable standards and says that FEMA may require safe land use and construction practices as a condition of grantees receiving disaster assistance under the Stafford Act.

**DATES:** *Effective Date:* February 26, 2002.

*Comment Date:* We will accept written comments through April 29, 2002.

**ADDRESSES:** Please send written comments to the Rules Docket Clerk, Office of the General Counsel, Federal Emergency Management Agency, 500 C Street, SW., room 840, Washington, DC 20472, (facsimile) 202-646-4536, or (email) [rules@fema.gov](mailto:rules@fema.gov).

**FOR FURTHER INFORMATION CONTACT:** Margaret E. Lawless, Federal Insurance and Mitigation Administration, Federal Emergency Management Agency, 500 C Street, SW., Washington, DC, 20472, 202-646-3027, (facsimile) 202-646-3104, or (email) [margaret.lawless@fema.gov](mailto:margaret.lawless@fema.gov).

**SUPPLEMENTARY INFORMATION:****Introduction**

Throughout the preamble and the rule the terms “we”, “our” and “us” refer to FEMA.

Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act or the Act), 42 U.S.C. 5165, enacted under § 104 the Disaster Mitigation Act of 2000, (DMA 2000) P.L. 106-390, provides new and revitalized approaches to mitigation planning. This section: (1) Continues the requirement for a Standard State Mitigation plan as a condition of disaster assistance; (2) provides for States to receive an increased

percentage of HMGP funds (from 15 to 20 percent of the total estimated eligible Federal assistance) if, at the time of the declaration of a major disaster, they have in effect a FEMA-approved Enhanced State Mitigation Plan that meets the factors listed in this rule; (3) establishes a new requirement for local mitigation plans; and (4) authorizes up to 7 percent of the HMGP funds available to a State to be used for development of State, tribal, and local mitigation plans. We will give Indian tribal governments the opportunity to fulfill the requirements of § 322 either as a grantee or a subgrantee. An Indian tribal government may choose to apply for HMGP funding directly to us and would then serve as a grantee, meeting the State level responsibilities, or it may apply through the State, meeting the local government or subgrantee responsibilities.

Section 322, in concert with other sections of the Act, provides a significant opportunity to reduce the Nation's disaster losses through mitigation planning. In addition, implementation of planned, pre-identified, cost-effective mitigation measures will streamline the disaster recovery process. The Act provides a framework for linking pre- and post-disaster mitigation planning and initiatives with public and private interests to ensure an integrated, comprehensive approach to disaster loss reduction. The language in the Act, taken as a whole, emphasizes the importance of strong State and local planning processes and comprehensive program management at the State level. The new planning criteria also support State administration of the HMGP, and contemplate a significant State commitment to mitigation activities, comprehensive State mitigation planning, and strong program management.

The planning process also provides a link between State and local mitigation programs. Both State level and local plans should address strategies for incorporating post-disaster early mitigation implementation strategies and sustainable recovery actions. We also recognize that governments are involved in a range of planning activities and that mitigation plans may be linked to or reference hazardous materials and other non-natural hazard plans. Improved mitigation planning will result in a better understanding of risks and vulnerabilities, as well as to expedite implementation of measures and activities to reduce those risks, both pre- and post-disaster.

Section 409 of the Stafford Act, 42 U.S.C. 5176, which required mitigation

plans and the use of minimum codes and standards, was repealed by the DMA 2000. These issues are now addressed in two separate sections of the law: mitigation planning is in section 322 of the Act, and minimum codes and standards are in section 323 of the Act. We previously implemented section 409 through 44 CFR Part 206, Subpart M. Since current law now distinguishes the planning from the codes and standards in separate sections, we will address them in different sections of the CFR. We address the new planning regulations in Part 201 to reflect the broader relevance of planning to all FEMA mitigation programs, while the minimum standards remain in Part 206, Federal Disaster Assistance, Subpart M. The regulations implementing the Hazard Mitigation Grant Program are in Part 206, Subpart N. This rule also contains changes to Subpart N, to reflect the new planning criteria identified in section 322 of the Act.

The administration is considering changes to FEMA's mitigation programs in the President's Budget for FY 2003. However, States and localities still would be required to have plans in effect, which meet the minimum requirements under this rule, as a condition of receiving mitigation assistance after November 1, 2003.

**Implementation Strategy.** States must have an approved hazard mitigation plan in order to receive Stafford Act assistance, excluding assistance provided pursuant to emergency provisions. These regulations provide criteria for the new two-tiered State mitigation plan process: Standard State Mitigation Plans, which allow a State to receive HMGP funding based on 15 percent of the total estimated eligible Stafford Act disaster assistance, and Enhanced State Mitigation Plans, which allow a State to receive HMGP funds based on 20 percent of the total estimated eligible Stafford Act disaster assistance. Enhanced State Mitigation Plans must demonstrate that the State has developed a comprehensive mitigation program, that it effectively uses available mitigation funding, and that it is capable of managing the increased funding. All State Mitigation Plans must be reviewed, revised, and re-approved by FEMA every three years. An important requirement of the legislation is that we must approve a completed enhanced plan *before* a disaster declaration, in order for the State to be eligible for the increased funding.

We will no longer require States to revise their mitigation plan after every disaster declaration, as under former

section 409 of the Act, 42 U.S.C. 5176. We recommend, however, that States consider revising their plan if a disaster or other circumstances significantly affect its mitigation priorities. States with existing mitigation plans, approved under former section 409, will continue to be eligible for the 15 percent HMGP funding until November 1, 2003, when all State mitigation plans must meet the requirements of these regulations. If State plans are not revised and approved to meet the Standard State Mitigation Plan requirements by that time, they will be ineligible for Stafford Act assistance, excluding emergency assistance.

Indian tribal governments may choose to apply directly to us for HMGP funding, and would therefore be responsible for having an approved State level mitigation plan, and would act as the grantee. If an Indian tribal government chooses to apply for HMGP grants through the State, they would be responsible for having an approved local level mitigation plan, and would serve as a subgrantee accountable to the State as grantee.

This rule also establishes local planning criteria so that these jurisdictions can actively begin the hazard mitigation planning process. This requirement is to encourage the development of comprehensive mitigation plans before disaster events. Section 322 requires local governments to have an approved local mitigation plan to be eligible to receive an HMGP project grant; however, this requirement will not fully take effect until November 1, 2003. FEMA Regional Directors may grant an exception to this requirement in extenuating circumstances. Until November 1, 2003, local governments will be able to receive HMGP project grant funds and may prepare a mitigation plan concurrently with implementation of their project grant. We anticipate that the Predisaster Mitigation program authorized by section 203 of the Act, 42 U.S.C. 5133, will also support this local mitigation planning by making funds available for the development of comprehensive local mitigation plans. Managing States that we approve under new criteria established under section 404 of the Act, 42 U.S.C. 5170c(c), as amended by section 204 of DMA 2000 will have approval authority for local mitigation plans. This provision does not apply to States that we approved under the Managing State program in effect before enactment of DMA 2000.

Our goal is for State and local governments to develop comprehensive and integrated plans that are coordinated through appropriate State,

local, and regional agencies, as well as non-governmental interest groups. To the extent feasible and practicable, we would also like to consolidate the planning requirements for different FEMA mitigation programs. This will ensure that one local plan will meet the minimum requirements for all of the different FEMA mitigation programs, such as the Flood Mitigation Assistance Program (authorized by sections 553 and 554 of the National Flood Insurance Reform Act of 1994, 42 U.S.C. 4104c and 42 U.S.C. 4104d), the Community Rating System (authorized by section 541 of the National Flood Insurance Reform Act of 1994, 42 U.S.C. 4022), the Pre-Disaster Mitigation Program (authorized by section 203 of the Stafford Act), the Hazard Mitigation Grant Program (authorized by section 404 of the Stafford Act), and the mitigation activities that are based upon the provisions of section 323 and subsections 406(b) and (e) of the Stafford Act. The mitigation plans may also serve to integrate documents and plans produced under other emergency management programs. State level plans should identify overall goals and priorities, incorporating the more specific local risk assessments, when available, and including projects identified through the local planning process.

Under section 322(d), up to 7 percent of the available HMGP funds may now be used for planning, and we encourage States to use these funds for local plan development. In a memorandum to FEMA Regional Directors dated December 21, 2000, we announced that this provision of section 322 was effective for disasters declared on or after October 30, 2000, the date on which the Disaster Mitigation Act of 2000 became law. Regional Directors are encouraging States to make these funds immediately available to local and Indian tribal governments, although the funds can be used for plan development and review at the State level as well.

As discussed earlier in this Supplementary Information, subsection 323(a) of the Stafford Act, 42 U.S.C. 5166(a), requires as a precondition to receiving disaster assistance under the Act that State and local governments, as well as eligible private nonprofit entities, must agree to carry out repair and reconstruction activities "in accordance with applicable standards of safety, decency, and sanitation and in conformity with applicable codes, specifications, and standards." In addition, that subsection authorizes the President (FEMA, by virtue of Executive Order 12148, as amended) to "require safe land use and construction practices,

after adequate consultation with appropriate State and local officials" in the course of the use of Federal disaster assistance by eligible applicants to repair and restore disaster-damaged facilities.

At the same time that we implement the planning mandates of section 322 of the Stafford Act, we are also implementing the Minimum Standards for Public and Private Structures provision of section 323 of the Act. This rule appears at Subpart M of Part 206 of Title 44 of the Code of Federal Regulations. As mentioned earlier, the section 322 planning regulations are in Part 201, while Part 206, Subpart M includes only the minimum codes and standards regulations mandated in § 323. The rule to implement § 323 of the Act reinforces the link between pre-disaster planning, building and construction standards, and post-disaster reconstruction efforts.

We encourage comments on this interim final rule, and we will make every effort to involve all interested parties prior to the development of the Final Rule.

#### **Justification for Interim Final Rule**

In general, FEMA publishes a rule for public comment before issuing a final rule, under the Administrative Procedure Act, 5 U.S.C. 533 and 44 CFR 1.12. The Administrative Procedure Act, however, provides an exception from that general rule where the agency for good cause finds the procedures for comment and response contrary to public interest. Section 322 of the Stafford Act allows States to receive increased post-disaster grant funding for projects designed to reduce future disaster losses. States will only be eligible for these increased funds if they have a FEMA-approved Enhanced State Mitigation Plan.

This interim final rule provides the criteria for development and approval of these plans, as well as criteria for local mitigation plans required by this legislation. In order for State and local governments to be positioned to receive these mitigation funds as soon as possible, these regulations must be in effect. The public benefit of this rule will be to assist States and communities assess their risks and identify activities to strengthen the larger community and the built environment in order to become less susceptible to disasters. Planning serves as the vital foundation to saving lives and protecting properties, having integrated plans in place can serve to both streamline recovery efforts and lessen potential future damages. Therefore, we believe it is contrary to the public interest to delay

the benefits of this rule. In accordance with the Administrative Procedure Act, 5 U.S.C. 553(d)(3), we find that there is good cause for the interim final rule to take effect immediately upon publication in the **Federal Register** in order to meet the needs of States and communities by identifying criteria for mitigation plans in order to reduce risks nationwide, establish criteria for minimum codes and standards in post-disaster reconstruction, and to allow States to adjust their mitigation plans to receive the increase in mitigation funding.

In addition, we believe that, under the circumstances, delaying the effective date of this rule until after the comment period would not further the public interest. Prior to this rulemaking, FEMA hosted a meeting where interested parties provided comments and suggestions on how we could implement these planning requirements. Participants in this meeting included representatives from the National Emergency Management Association, the Association of State Floodplain Managers, the National Governors' Association, the International Association of Emergency Managers, the National Association of Development Organizations, the American Public Works Association, the National League of Cities, the National Association of Counties, the National Conference of State Legislatures, the International City/County Management Association, and the Bureau of Indian Affairs. We took comments and suggestions provided at this meeting into account in developing this interim final rule. Therefore, we find that prior notice and comment on this rule would not further the public interest. We actively encourage and solicit comments on this interim final rule from interested parties, and we will consider them in preparing the final rule. For these reasons, we believe we have good cause to publish an interim final rule.

#### **National Environmental Policy Act**

44 CFR 10.8(d)(2)(ii) excludes this rule from the preparation of an environmental assessment or environmental impact statement, where the rule relates to actions that qualify for categorical exclusion under 44 CFR 10.8(d)(2)(iii), such as the development of plans under this section.

#### **Executive Order 12866, Regulatory Planning and Review**

We have prepared and reviewed this rule under the provisions of E.O. 12866, Regulatory Planning and Review. Under Executive Order 12866, 58 FR 51735, October 4, 1993, a significant regulatory

action is subject to OMB review and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

The purpose of this rule is to implement section 322 of the Stafford Act which addresses mitigation planning at the State, tribal, and local levels, identifies new local planning requirements, allows Hazard Mitigation Grant Program (HMGP) funds for planning activities, and increases the amount of HMGP funds available to States that develop a comprehensive, enhanced mitigation plan. The rule identifies local mitigation planning requirements before approval of project grants, and requires our approval of an Enhanced State Mitigation plan as a condition for increased mitigation funding. The rule also implements section 323 of the Stafford Act, which requires that repairs or construction funded by disaster loans or grants must comply with applicable standards and safe land use and construction practices. As such the rule itself will not have an effect on the economy of more than \$100,000,000.

Therefore, this rule is a significant regulatory action and is not an economically significant rule under Executive Order 12866. The Office of Management and Budget (OMB) has reviewed this rule under Executive Order 12866.

#### **Executive Order 12898, Environmental Justice**

Under Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629, February 16, 1994, we incorporate environmental justice into our policies and programs. The Executive Order requires each Federal agency to conduct its programs, policies, and activities that substantially affect human health or the

environment, in a manner that ensures that those programs, policies, and activities do not have the effect of excluding persons from participation in our programs, denying persons the benefits of our programs, or subjecting persons to discrimination because of their race, color, or national origin.

No action that we can anticipate under the final rule will have a disproportionately high or adverse human health and environmental effect on any segment of the population. Section 322 focuses specifically on mitigation planning to: Identify the natural hazards, risks, and vulnerabilities of areas in States, localities, and tribal areas; support development of local mitigation plans; provide for technical assistance to local and tribal governments for mitigation planning; and identify and prioritize mitigation actions that the State will support, as resources become available. Section 323 requires compliance with applicable codes and standards in repair and construction, and use of safe land use and construction standards. Accordingly, the requirements of Executive Order 12898 do not apply to this interim final rule.

#### **Paperwork Reduction Act of 1995**

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) and concurrent with the publication of this interim final rule, we have submitted a request for review and approval of a new collection of information, which is contained in this interim final rule. Under the Paperwork Reduction Act of 1995, a person may not be penalized for failing to comply with an information collection that does not display a currently valid Office of Management and Budget (OMB) control number. The request was submitted to OMB for approval under the emergency processing procedures in OMB regulation 5 CFR 1320.1. OMB has approved this collection of information for use through August 31, 2002, under OMB Number 3067-0297.

We expect to follow this emergency request with a request for OMB approval to continue the use of the collection of information for a term of three years. The request will be processed under OMB's normal clearance procedures in accordance with provisions of OMB regulation 5 CFR 1320.10. To help us with the timely processing of the emergency and normal clearance submissions to OMB, we invite the general public to comment on the collection of information. This notice and request for comments complies with the provisions of the Paperwork

Reduction Act of 1995 (44 U.S.C. 3506(c)(2)(A)).

### Collection of Information

*Title:* State/Local/Tribal Hazard Mitigation Plans under Section 322 of the Disaster Mitigation Act of 2000.

*Abstract:* Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended by Section 104 of the Disaster Mitigation Act of 2000, provides new and revitalized approaches to mitigation planning. To obtain Federal assistance, new planning provisions require that each state, local, and tribal government prepare a hazard mitigation plan to include sections that describe the planning process, an assessment of the risks, a mitigation strategy, and identification of the plan maintenance and updating process. The Act provides a framework for linking pre- and post-disaster mitigation planning and initiatives with public and

private interests to ensure an integrated, comprehensive approach to disaster loss reduction. Under Section 322 there is a two-tiered State mitigation plan process. State mitigation plans must be reviewed, revised, and submitted to us every 3 years.

(1) A *Standard State Mitigation Plan* must be approved by us in order for States to be eligible to receive Hazard Mitigation Grant Program (HMGP) funding based on 15 percent of the total estimated eligible Federal disaster assistance. This plan demonstrates the State's goals, priorities, and commitment to reduce risks from natural hazards and serves as a guide for State and local decision makers as they commit resources to reducing the effects of natural hazards.

(2) An *Enhanced State Mitigation Plan* must be approved by us for a State to be eligible to receive HMGP funds based on 20 percent of the total

estimated eligible Federal disaster assistance. This plan must be approved by us within the 3 years prior to the current major disaster declaration. It must demonstrate that a State has developed a comprehensive mitigation program, is effectively using available mitigation funding, and is capable of managing the increased funding.

To be eligible to receive HMGP project grants, *local governments* must develop Local Mitigation Plans that include a risk assessment and mitigation strategy to reduce potential losses and target resources. Plans must be reviewed, revised, and submitted to us for approval every 5 years.

To receive HMGP project grants, *tribal governments* may apply as a grantee or subgrantee, and will be required to meet the planning requirements of a State or local government.

### *Estimated Total Annual Burden:*

| Type of collection/forms                                                        | No. of respondents | Hours per response | Annual burden hours |
|---------------------------------------------------------------------------------|--------------------|--------------------|---------------------|
| Update state or tribal mitigation plans (standard state mitigation plans) ..... | 18                 | 320                | 5,760               |
| State review of local plans .....                                               | 500 local plans    | 8                  | 4,000               |
| States develop Enhanced State Mitigation Plans .....                            | 7                  | 100                | 700                 |
| Local or tribal governments develop mitigation plans .....                      | 500 local plans    | 300                | 150,000             |
| Total burden .....                                                              | .....              | .....              | 160,460             |

*Comments:* We are soliciting written comments to: (a) Evaluate whether the proposed data collection is necessary for the proper performance of the agency, including whether the information shall have practical utility; (b) evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information; (c) obtain recommendations to enhance the quality, utility, and clarity of the information to be collected; and (d) evaluate the extent to which automated, electronic, mechanical, or other technological collection techniques may further reduce the respondents' burden. FEMA will accept comments through April 29, 2002.

Addressee: Interested persons should submit written comments to Muriel B. Anderson, Chief, Records Management Section, Program Services and Systems Branch, Facilities Management and Services Division, Administration and Resource Planning Directorate, Federal Emergency Management Agency, 500 C Street, Street, SW., Washington, DC 20472.

**FOR FURTHER INFORMATION CONTACT:** You may obtain copies of the OMB paperwork clearance package by

contacting Ms. Anderson at (202) 646-2625 (voice), (202) 646-3347 (facsimile), or by e-mail at [muriel.anderson@fema.gov](mailto:muriel.anderson@fema.gov).

### **Executive Order 13132, Federalism**

Executive Order 13132, Federalism, dated August 4, 1999, sets forth principles and criteria that agencies must adhere to in formulating and implementing policies that have federalism implications, that is, regulations that have substantial direct effects on the States, or on the distribution of power and responsibilities among the various levels of government. Federal agencies must closely examine the statutory authority supporting any action that would limit the policymaking discretion of the States, and to the extent practicable, must consult with State and local officials before implementing any such action.

We have reviewed this rule under E.O.13132 and have concluded that the rule does not have federalism implications as defined by the Executive Order. We have determined that the rule does not significantly affect the rights, roles, and responsibilities of States, and involves no preemption of State law nor

does it limit State policymaking discretion.

However, we have consulted with State and local officials. In order to assist us in the development of this rule, we hosted a meeting to allow interested parties an opportunity to provide their perspectives on the legislation and options for implementation of § 322. Stakeholders who attended the meeting included representatives from the National Emergency Management Association, the Association of State Floodplain Managers, the National Governors' Association, the International Association of Emergency Managers, the National Association of Development Organizations, the American Public Works Association, the National League of Cities, the National Association of Counties, the National Conference of State Legislatures, the International City/County Management Association, and the Bureau of Indian Affairs. We received valuable input from all parties at the meeting, which we took into account in the development of this rule. Additionally, we actively encourage and solicit comments on this interim final rule from interested parties, and we will



consider them in preparing the final rule.

### Executive Order 13175, Consultation and Coordination With Indian Tribal Governments

We have reviewed this interim final rule under Executive Order 13175, which became effective on February 6, 2001. Under the Hazard Mitigation Grant Program (HMGP), Indian tribal governments will have the option to apply for grants directly to us and to serve as "grantee", carrying out "State" roles. If they choose this option, tribal governments may submit either a State-level Standard Mitigation Plan for the 15 percent HMGP funding or a State-level Enhanced Mitigation Plan for 20 percent HMGP funding. In either case, Indian tribal governments would be able to spend up to 7 percent of those funds on planning. Before developing this rule, we met with representatives from State and local governments and the Bureau of Indian Affairs, to discuss the new planning opportunities and requirements of § 322 of the Stafford Act. We received valuable input from all parties, which helped us to develop this interim final rule.

In reviewing the interim final rule, we find that it does not have "tribal implications" as defined in Executive Order 13175 because it will not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes. Moreover, the interim final rule does not impose substantial direct compliance costs on tribal governments, nor does it preempt tribal law, impair treaty rights or limit the self-governing powers of tribal governments.

### Congressional Review of Agency Rulemaking

We have sent this interim final rule to the Congress and to the General Accounting Office under the Congressional Review of Agency Rulemaking Act, Public Law 104-121. The rule is a not "major rule" within the meaning of that Act. It is an administrative action in support of normal day-to-day mitigation planning activities required by section 322 and compliance under section 323 of the Stafford Act, as enacted in DMA 2000.

The rule will not result in a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions. It will not have "significant adverse effects" on competition, employment, investment,

productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises. This final rule is subject to the information collection requirements of the Paperwork Reduction Act, and OMB has assigned Control No. 3067-0297. The rule is not an unfunded Federal mandate within the meaning of the Unfunded Mandates Reform Act of 1995, Public Law 104-4, and any enforceable duties that we impose are a condition of Federal assistance or a duty arising from participation in a voluntary Federal program.

### List of Subjects in 44 CFR Part 201 and Part 206

Administrative practice and procedure, Disaster assistance, Grant programs, Mitigation planning, Reporting and recordkeeping requirements.

Accordingly, Amend 44 CFR, Subchapter D—Disaster Assistance, as follows:

1. Add Part 201 to read as follows:

### PART 201—MITIGATION PLANNING

Sec.

- 201.1 Purpose.
- 201.2 Definitions.
- 201.3 Responsibilities.
- 201.4 Standard State Mitigation Plans.
- 201.5 Enhanced State Mitigation Plans.
- 201.6 Local Mitigation Plans.

**Authority:** Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121-5206; Reorganization Plan No. 3 of 1978, 43 FR 41943, 3 CFR, 1978 Comp., p. 329; E.O. 12127, 44 FR 19367, 3 CFR, 1979 Comp., p. 376; E.O. 12148, 44 FR 43239, 3 CFR, 1979 Comp., p. 412; and E.O. 12673, 54 FR 12571, 3 CFR, 1989 Comp., p. 214.

#### § 201.1 Purpose.

(a) The purpose of this part is to provide information on the policies and procedures for mitigation planning as required by the provisions of section 322 of the Stafford Act, 42 U.S.C. 5165.

(b) The purpose of mitigation planning is for State, local, and Indian tribal governments to identify the natural hazards that impact them, to identify actions and activities to reduce any losses from those hazards, and to establish a coordinated process to implement the plan, taking advantage of a wide range of resources.

#### § 201.2 Definitions.

**Grantee** means the government to which a grant is awarded, which is accountable for the use of the funds provided. The grantee is the entire legal entity even if only a particular component of the entity is designated in the grant award document. Generally,

the State is the grantee. However, after a declaration, an Indian tribal government may choose to be a grantee, or may act as a subgrantee under the State. An Indian tribal government acting as grantee will assume the responsibilities of a "state", as described in this part, for the purposes of administering the grant.

**Hazard mitigation** means any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards.

**Hazard Mitigation Grant Program** means the program authorized under section 404 of the Stafford Act, 42 U.S.C. 5170c and implemented at 44 CFR Part 206, Subpart N, which authorizes funding for certain mitigation measures identified through the evaluation of natural hazards conducted under section 322 of the Stafford Act 42 U.S.C. 5165.

**Indian tribal government** means any Federally recognized governing body of an Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of Interior acknowledges to exist as an Indian tribe under the Federally Recognized Tribe List Act of 1994, 25 U.S.C. 479a. This does not include Alaska Native corporations, the ownership of which is vested in private individuals.

**Local government** is any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity.

**Managing State** means a State to which FEMA has delegated the authority to administer and manage the HMGP under the criteria established by FEMA pursuant to 42 U.S.C. 5170c(c). FEMA may also delegate authority to tribal governments to administer and manage the HMGP as a Managing State.

**Regional Director** is a director of a regional office of FEMA, or his/her designated representative.

**Small and impoverished communities** means a community of 3,000 or fewer individuals that is identified by the State as a rural community, and is not a remote area within the corporate boundaries of a larger city; is economically disadvantaged, by having an average per capita annual income of residents not exceeding 80 percent of national, per capita income, based on

best available data; the local unemployment rate exceeds by one percentage point or more, the most recently reported, average yearly national unemployment rate; and any other factors identified in the State Plan in which the community is located.

*The Stafford Act* refers to the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93–288, as amended (42 U.S.C. 5121–5206).

*State* is any State of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

*State Hazard Mitigation Officer* is the official representative of State government who is the primary point of contact with FEMA, other Federal agencies, and local governments in mitigation planning and implementation of mitigation programs and activities required under the Stafford Act.

*Subgrantee* means the government or other legal entity to which a subgrant is awarded and which is accountable to the grantee for the use of the funds provided. Subgrantees can be a State agency, local government, private non-profit organizations, or Indian tribal government. Indian tribal governments acting as a subgrantee are accountable to the State grantee.

### **§ 201.3 Responsibilities.**

(a) *General.* This section identifies the key responsibilities of FEMA, States, and local/tribal governments in carrying out section 322 of the Stafford Act, 42 U.S.C. 5165.

(b) *FEMA.* The key responsibilities of the Regional Director are to:

(1) Oversee all FEMA related pre- and post-disaster hazard mitigation programs and activities;

(2) Provide technical assistance and training to State, local, and Indian tribal governments regarding the mitigation planning process;

(3) Review and approve all Standard and Enhanced State Mitigation Plans;

(4) Review and approve all local mitigation plans, unless that authority has been delegated to the State in accordance with § 201.6(d);

(5) Conduct reviews, at least once every three years, of State mitigation activities, plans, and programs to ensure that mitigation commitments are fulfilled, and when necessary, take action, including recovery of funds or denial of future funds, if mitigation commitments are not fulfilled.

(c) *State.* The key responsibilities of the State are to coordinate all State and

local activities relating to hazard evaluation and mitigation and to:

(1) Prepare and submit to FEMA a Standard State Mitigation Plan following the criteria established in § 201.4 as a condition of receiving Stafford Act assistance (except emergency assistance).

(2) In order to be considered for the 20 percent HMGP funding, prepare and submit an Enhanced State Mitigation Plan in accordance with § 201.5, which must be reviewed and updated, if necessary, every three years from the date of the approval of the previous plan.

(3) At a minimum, review and, if necessary, update the Standard State Mitigation Plan by November 1, 2003 and every three years from the date of the approval of the previous plan in order to continue program eligibility.

(4) Make available the use of up to the 7 percent of HMGP funding for planning in accordance with § 206.434.

(5) Provide technical assistance and training to local governments to assist them in applying for HMGP planning grants, and in developing local mitigation plans.

(6) For Managing States that have been approved under the criteria established by FEMA pursuant to 42 U.S.C. 5170c(c), review and approve local mitigation plans in accordance with § 201.6(d).

(d) *Local governments.* The key responsibilities of local governments are to:

(1) Prepare and adopt a jurisdiction-wide natural hazard mitigation plan as a condition of receiving project grant funds under the HMGP, in accordance with § 201.6.

(2) At a minimum, review and, if necessary, update the local mitigation plan every five years from date of plan approval to continue program eligibility.

(e) *Indian tribal governments.* Indian tribal governments will be given the option of applying directly to us for Hazard Mitigation Grant Program funding, or they may choose to apply through the State. If they apply directly to us, they will assume the responsibilities of the State, or grantee, and if they apply through the State, they will assume the responsibilities of the local government, or subgrantee.

### **§ 201.4 Standard State Mitigation Plans.**

(a) *Plan requirement.* By November 1, 2003, States must have an approved Standard State Mitigation plan meeting the requirements of this section, in order to receive assistance under the Stafford Act, although assistance authorized under disasters declared prior to November 1, 2003 will continue

to be made available. In any case, emergency assistance provided under 42 U.S.C. 5170a, 5170b, 5173, 5174, 5177, 5179, 5180, 5182, 5183, 5184, 5192 will not be affected. The mitigation plan is the demonstration of the State's commitment to reduce risks from natural hazards and serves as a guide for State decision makers as they commit resources to reducing the effects of natural hazards. States may choose to include the requirements of the HMGP Administrative Plan in their mitigation plan.

(b) *Planning process.* An effective planning process is essential in developing and maintaining a good plan. The mitigation planning process should include coordination with other State agencies, appropriate Federal agencies, interested groups, and be integrated to the extent possible with other ongoing State planning efforts as well as other FEMA mitigation programs and initiatives.

(c) *Plan content.* To be effective the plan must include the following elements:

(1) Description of the *planning process* used to develop the plan, including how it was prepared, who was involved in the process, and how other agencies participated.

(2) *Risk assessments* that provide the factual basis for activities proposed in the strategy portion of the mitigation plan. Statewide risk assessments must characterize and analyze natural hazards and risks to provide a statewide overview. This overview will allow the State to compare potential losses throughout the State and to determine their priorities for implementing mitigation measures under the strategy, and to prioritize jurisdictions for receiving technical and financial support in developing more detailed local risk and vulnerability assessments. The risk assessment shall include the following:

(i) An overview of the type and location of all natural hazards that can affect the State, including information on previous occurrences of hazard events, as well as the probability of future hazard events, using maps where appropriate;

(ii) An overview and analysis of the State's vulnerability to the hazards described in this paragraph (c)(2), based on estimates provided in local risk assessments as well as the State risk assessment. The State shall describe vulnerability in terms of the jurisdictions most threatened by the identified hazards, and most vulnerable to damage and loss associated with hazard events. State owned critical or operated facilities located in the

identified hazard areas shall also be addressed;

(iii) An overview and analysis of potential losses to the identified vulnerable structures, based on estimates provided in local risk assessments as well as the State risk assessment. The State shall estimate the potential dollar losses to State owned or operated buildings, infrastructure, and critical facilities located in the identified hazard areas.

(3) A *Mitigation Strategy* that provides the State's blueprint for reducing the losses identified in the risk assessment. This section shall include:

(i) A description of State goals to guide the selection of activities to mitigate and reduce potential losses.

(ii) A discussion of the State's pre- and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: an evaluation of State laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas; a discussion of State funding capabilities for hazard mitigation projects; and a general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities.

(iii) An identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy. This section should be linked to local plans, where specific local actions and projects are identified.

(iv) Identification of current and potential sources of Federal, State, local, or private funding to implement mitigation activities.

(4) A section on the *Coordination of Local Mitigation Planning* that includes the following:

(i) A description of the State process to support, through funding and technical assistance, the development of local mitigation plans.

(ii) A description of the State process and timeframe by which the local plans will be reviewed, coordinated, and linked to the State Mitigation Plan.

(iii) Criteria for prioritizing communities and local jurisdictions that would receive planning and project grants under available funding programs, which should include consideration for communities with the highest risks, repetitive loss properties, and most intense development pressures. Further, that for non-planning grants, a principal criterion for prioritizing grants shall be the extent to which benefits are maximized according

to a cost benefit review of proposed projects and their associated costs.

(5) A *Plan Maintenance Process* that includes:

(i) An established method and schedule for monitoring, evaluating, and updating the plan.

(ii) A system for monitoring implementation of mitigation measures and project closeouts.

(iii) A system for reviewing progress on achieving goals as well as activities and projects identified in the Mitigation Strategy.

(6) A *Plan Adoption Process*. The plan must be formally adopted by the State prior to submittal to us for final review and approval.

(7) *Assurances*. The plan must include assurances that the State will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with 44 CFR 13.11(c). The State will amend its plan whenever necessary to reflect changes in State or Federal laws and statutes as required in 44 CFR 13.11(d).

(d) *Review and updates*. Plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities and resubmitted for approval to the appropriate Regional Director every three years. The Regional review will be completed within 45 days after receipt from the State, whenever possible. We also encourage a State to review its plan in the post-disaster timeframe to reflect changing priorities, but it is not required.

#### **§ 201.5 Enhanced State Mitigation Plans.**

(a) A State with a FEMA approved Enhanced State Mitigation Plan at the time of a disaster declaration is eligible to receive increased funds under the HMGP, based on twenty percent of the total estimated eligible Stafford Act disaster assistance. The Enhanced State Mitigation Plan must demonstrate that a State has developed a comprehensive mitigation program, that the State effectively uses available mitigation funding, and that it is capable of managing the increased funding. In order for the State to be eligible for the 20 percent HMGP funding, FEMA must have approved the plan within three years prior to the disaster declaration.

(b) Enhanced State Mitigation Plans must include all elements of the Standard State Mitigation Plan identified in § 201.4, as well as document the following:

(1) Demonstration that the plan is integrated to the extent practicable with other State and/or regional planning

initiatives (comprehensive, growth management, economic development, capital improvement, land development, and/or emergency management plans) and FEMA mitigation programs and initiatives that provide guidance to State and regional agencies.

(2) Documentation of the State's project implementation capability, identifying and demonstrating the ability to implement the plan, including:

(i) Established eligibility criteria for multi-hazard mitigation measures.

(ii) A system to determine the cost effectiveness of mitigation measures, consistent with OMB Circular A-94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs, and to rank the measures according to the State's eligibility criteria.

(iii) Demonstration that the State has the capability to effectively manage the HMGP as well as other mitigation grant programs, including a record of the following:

(A) Meeting HMGP and other mitigation grant application timeframes and submitting complete, technically feasible, and eligible project applications with appropriate supporting documentation;

(B) Preparing and submitting accurate environmental reviews and benefit-cost analyses;

(C) Submitting complete and accurate quarterly progress and financial reports on time; and

(D) Completing HMGP and other mitigation grant projects within established performance periods, including financial reconciliation.

(iv) A system and strategy by which the State will conduct an assessment of the completed mitigation actions and include a record of the effectiveness (actual cost avoidance) of each mitigation action.

(3) Demonstration that the State effectively uses existing mitigation programs to achieve its mitigation goals.

(4) Demonstration that the State is committed to a comprehensive state mitigation program, which might include any of the following:

(i) A commitment to support local mitigation planning by providing workshops and training, State planning grants, or coordinated capability development of local officials, including Emergency Management and Floodplain Management certifications.

(ii) A statewide program of hazard mitigation through the development of legislative initiatives, mitigation councils, formation of public/private

partnerships, and/or other executive actions that promote hazard mitigation.

(iii) The State provides a portion of the non-Federal match for HMGP and/or other mitigation projects.

(iv) To the extent allowed by State law, the State requires or encourages local governments to use a current version of a nationally applicable model building code or standard that addresses natural hazards as a basis for design and construction of State sponsored mitigation projects.

(v) A comprehensive, multi-year plan to mitigate the risks posed to existing buildings that have been identified as necessary for post-disaster response and recovery operations.

(vi) A comprehensive description of how the State integrates mitigation into its post-disaster recovery operations.

(c) *Review and updates.* (1) A State must review and revise its plan to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities, and resubmit it for approval to the appropriate Regional Director every three years. The Regional review will be completed within 45 days after receipt from the State, whenever possible.

(2) In order for a State to be eligible for the 20 percent HMGP funding, the Enhanced State Mitigation plan must be approved by FEMA within the three years prior to the current major disaster declaration.

#### § 201.6 Local Mitigation Plans.

The local mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. Local plans will also serve as the basis for the State to provide technical assistance and to prioritize project funding.

(a) *Plan requirement.* (1) For disasters declared after November 1, 2003, a local government must have a mitigation plan approved pursuant to this section in order to receive HMGP project grants. Until November 1, 2003, local mitigation plans may be developed concurrent with the implementation of the project grant.

(2) Regional Directors may grant an exception to the plan requirement in extraordinary circumstances, such as in a small and impoverished community, when justification is provided. In these cases, a plan will be completed within 12 months of the award of the project grant. If a plan is not provided within this timeframe, the project grant will be terminated, and any costs incurred after

notice of grant's termination will not be reimbursed by FEMA.

(3) Multi-jurisdictional plans (e.g. watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan. State-wide plans will not be accepted as multi-jurisdictional plans.

(b) *Planning process.* An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:

(1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;

(2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and

(3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

(c) *Plan content.* The plan shall include the following:

(1) Documentation of the *planning process* used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

(2) A *risk assessment* that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards. The risk assessment shall include:

(i) A description of the type, location, and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

(ii) A description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. The plan should describe vulnerability in terms of:

(A) The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas;

(B) An estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section

and a description of the methodology used to prepare the estimate;

(C) Providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

(iii) For multi-jurisdictional plans, the risk assessment section must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.

(3) A *mitigation strategy* that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools. This section shall include:

(i) A description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

(ii) A section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

(iii) An action plan describing how the actions identified in paragraph (c)(2)(ii) of this section will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

(iv) For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.

(4) A *plan maintenance process* that includes:

(i) A section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

(ii) A process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.

(iii) Discussion on how the community will continue public participation in the plan maintenance process.

(5) *Documentation* that the plan has been formally adopted by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council). For multi-jurisdictional plans, each jurisdiction requesting approval of the plan must document that it has been formally adopted.

(d) *Plan review.* (1) Plans must be submitted to the State Hazard Mitigation Officer for initial review and coordination. The State will then send the plan to the appropriate FEMA Regional Office for formal review and approval.

(2) The Regional review will be completed within 45 days after receipt from the State, whenever possible.

(3) Plans must be reviewed, revised if appropriate, and resubmitted for approval within five years in order to continue to be eligible for HMGP project grant funding.

(4) Managing States that have been approved under the criteria established by FEMA pursuant to 42 U.S.C. 5170c(c) will be delegated approval authority for local mitigation plans, and the review will be based on the criteria in this part. Managing States will review the plans within 45 days of receipt of the plans, whenever possible, and provide a copy of the approved plans to the Regional Office.

#### **PART 206—FEDERAL DISASTER ASSISTANCE FOR DISASTERS DECLARED ON OR AFTER NOVEMBER 23, 1988**

2. The authority citation for part 206 is revised to read as follows:

**Authority:** Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121–5206; Reorganization Plan No. 3 of 1978, 43 FR 41943, 3 CFR, 1978 Comp., p. 329; E.O. 12127, 44 FR 19367, 3 CFR, 1979 Comp., p. 376; E.O. 12148, 44 FR 43239, 3 CFR, 1979 Comp., p. 412; and E.O. 12673, 54 FR 12571, 3 CFR, 1989 Comp., p. 214.

2a. Revise Part 206, Subpart M to read as follows:

#### **Subpart M—Minimum Standards**

Sec.  
206.400 General.  
206.401 Local standards.  
206.402 Compliance.

##### **§ 206.400 General.**

(a) As a condition of the receipt of any disaster assistance under the Stafford Act, the applicant shall carry out any repair or construction to be financed with the disaster assistance in accordance with applicable standards of safety, decency, and sanitation and in conformity with applicable codes, specifications and standards.

(b) Applicable codes, specifications, and standards shall include any disaster resistant building code that meets the minimum requirements of the National Flood Insurance Program (NFIP) as well as being substantially equivalent to the recommended provisions of the National Earthquake Hazards Reduction

Program (NEHRP). In addition, the applicant shall comply with any requirements necessary in regards to Executive Order 11988, Floodplain Management, Executive Order 12699, Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction, and any other applicable Executive orders.

(c) In situations where there are no locally applicable standards of safety, decency and sanitation, or where there are no applicable local codes, specifications and standards governing repair or construction activities, or where the Regional Director determines that otherwise applicable codes, specifications, and standards are inadequate, then the Regional Director may, after consultation with appropriate State and local officials, require the use of nationally applicable codes, specifications, and standards, as well as safe land use and construction practices in the course of repair or construction activities.

(d) The mitigation planning process that is mandated by section 322 of the Stafford Act and 44 CFR part 201 can assist State and local governments in determining where codes, specifications, and standards are inadequate, and may need to be upgraded.

##### **§ 206.401 Local standards.**

The cost of repairing or constructing a facility in conformity with minimum codes, specifications and standards may be eligible for reimbursement under section 406 of the Stafford Act, as long as such codes, specifications and standards meet the criteria that are listed at 44 CFR 206.226(b).

##### **§ 206.402 Compliance.**

A recipient of disaster assistance under the Stafford Act must document for the Regional Director its compliance with this subpart following the completion of any repair or construction activities.

#### **Subpart N—Hazard Mitigation Grant Program**

3. Revise § 206.431 to read as follows:

##### **§ 206.431 Definitions.**

*Activity* means any mitigation measure, project, or action proposed to reduce risk of future damage, hardship, loss or suffering from disasters.

*Applicant* means a State agency, local government, Indian tribal government, or eligible private nonprofit organization, submitting an application to the grantee for assistance under the HMGP.

*Enhanced State Mitigation Plan* is the hazard mitigation plan approved under 44 CFR part 201 as a condition of receiving increased funding under the HMGP.

*Grant application* means the request to FEMA for HMGP funding, as outlined in § 206.436, by a State or tribal government that will act as grantee.

*Grant award* means total of Federal and non-Federal contributions to complete the approved scope of work.

*Grantee* means the government to which a grant is awarded and which is accountable for the use of the funds provided. The grantee is the entire legal entity even if only a particular component of the entity is designated in the grant award document. Generally, the State is the grantee. However, an Indian tribal government may choose to be a grantee, or it may act as a subgrantee under the State. An Indian tribal government acting as a grantee will assume the responsibilities of a “state”, under this subpart, for the purposes of administering the grant.

*Indian tribal government* means any Federally recognized governing body of an Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of Interior acknowledges to exist as an Indian tribe under the Federally Recognized Tribe List Act of 1994, 25 U.S.C. 479a. This does not include Alaska Native corporations, the ownership of which is vested in private individuals.

*Local Mitigation Plan* is the hazard mitigation plan required of a local or Indian tribal government acting as a subgrantee as a condition of receiving a project subgrant under the HMGP as outlined in 44 CFR 201.6.

*Standard State Mitigation Plan* is the hazard mitigation plan approved under 44 CFR part 201, as a condition of receiving Stafford Act assistance as outlined in § 201.4.

*State Administrative Plan for the Hazard Mitigation Grant Program* means the plan developed by the State to describe the procedures for administration of the HMGP.

*Subgrant* means an award of financial assistance under a grant by a grantee to an eligible subgrantee.

*Subgrant application* means the request to the grantee for HMGP funding by the eligible subgrantee, as outlined in § 206.436.

*Subgrantee* means the government or other legal entity to which a subgrant is awarded and which is accountable to the grantee for the use of the funds provided. Subgrantees can be a State agency, local government, private nonprofit organizations, or Indian tribal government as outlined in § 206.433.

Indian tribal governments acting as a subgrantee are accountable to the State grantee.

4. Revise § 206.432(b) to read as follows:

**§ 206.432 Federal grant assistance.**

\* \* \* \* \*

(b) *Amounts of assistance.* The total of Federal assistance under this subpart shall not exceed either 15 or 20 percent of the total estimated Federal assistance (excluding administrative costs) provided for a major disaster under 42 U.S.C. 5170b, 5172, 5173, 5174, 5177, 5178, 5183, and 5201 as follows:

(1) *Fifteen (15) percent.* Effective November 1, 2003, a State with an approved Standard State Mitigation Plan, which meets the requirements outlined in 44 CFR 201.4, shall be eligible for assistance under the HMGP not to exceed 15 percent of the total estimated Federal assistance described in this paragraph. Until that date, existing, approved State Mitigation Plans will be accepted.

(2) *Twenty (20) percent.* A State with an approved Enhanced State Mitigation Plan, in effect prior to the disaster declaration, which meets the requirements outlined in 44 CFR 201.5 shall be eligible for assistance under the HMGP not to exceed 20 percent of the total estimated Federal assistance described in this paragraph.

(3) The estimates of Federal assistance under this paragraph (b) shall be based on the Regional Director's estimate of all eligible costs, actual grants, and appropriate mission assignments.

\* \* \* \* \*

5. Section 206.434 is amended by redesignating paragraphs (b) through (g) as paragraphs (c) through (h), respectively; adding a new paragraph (b); revising redesignated paragraphs (c) introductory text and (c)(1); and revising redesignated paragraph (d) to read as follows:

**§ 206.434 Eligibility.**

\* \* \* \* \*

(b) *Plan requirement.* (1) For all disasters declared on or after November 1, 2003, local and tribal government applicants for subgrants, must have an approved local mitigation plan in accordance with 44 CFR 201.6 prior to receipt of HMGP subgrant funding. Until November 1, 2003, local mitigation plans may be developed concurrent with the implementation of subgrants.

(2) Regional Directors may grant an exception to this requirement in extraordinary circumstances, such as in a small and impoverished community

when justification is provided. In these cases, a plan will be completed within 12 months of the award of the project grant. If a plan is not provided within this timeframe, the project grant will be terminated, and any costs incurred after notice of grant's termination will not be reimbursed by FEMA.

(c) *Minimum project criteria.* To be eligible for the Hazard Mitigation Grant Program, a project must:

(1) Be in conformance with the State Mitigation Plan and Local Mitigation Plan approved under 44 CFR part 201;

\* \* \* \* \*

(d) *Eligible activities.* (1) *Planning.* Up to 7% of the State's HMGP grant may be used to develop State, tribal and/or local mitigation plans to meet the planning criteria outlined in 44 CFR part 201.

(2) *Types of projects.* Projects may be of any nature that will result in protection to public or private property. Eligible projects include, but are not limited to:

(i) Structural hazard control or protection projects;

(ii) Construction activities that will result in protection from hazards;

(iii) Retrofitting of facilities;

(iv) Property acquisition or relocation, as defined in paragraph (e) of this section;

(v) Development of State or local mitigation standards;

(vi) Development of comprehensive mitigation programs with implementation as an essential component;

(vii) Development or improvement of warning systems.

\* \* \* \* \*

6. Revise § 206.435(a) to read as follows:

**§ 206.435 Project identification and selection criteria.**

(a) *Identification.* It is the State's responsibility to identify and select eligible hazard mitigation projects. All funded projects must be consistent with the State Mitigation Plan. Hazard Mitigation projects shall be identified and prioritized through the State, Indian tribal, and local planning process.

\* \* \* \* \*

7. Revise § 206.436 to read as follows:

**§ 206.436 Application procedures.**

(a) *General.* This section describes the procedures to be used by the grantee in submitting an application for HMGP funding. Under the HMGP, the State or Indian tribal government is the grantee and is responsible for processing subgrants to applicants in accordance with 44 CFR part 13 and this part 206. Subgrantees are accountable to the grantee.

(b) *Governor's Authorized Representative.* The Governor's Authorized Representative serves as the grant administrator for all funds provided under the Hazard Mitigation Grant Program. The Governor's Authorized Representative's responsibilities as they pertain to procedures outlined in this section include providing technical advice and assistance to eligible subgrantees, and ensuring that all potential applicants are aware of assistance available and submission of those documents necessary for grant award.

(c) *Hazard mitigation application.*

Upon identification of mitigation measures, the State (Governor's Authorized Representative) will submit its Hazard Mitigation Grant Program application to the FEMA Regional Director. The application will identify one or more mitigation measures for which funding is requested. The application must include a Standard Form (SF) 424, Application for Federal Assistance, SF 424D, Assurances for Construction Programs, if appropriate, and a narrative statement. The narrative statement will contain any pertinent project management information not included in the State's administrative plan for Hazard Mitigation. The narrative statement will also serve to identify the specific mitigation measures for which funding is requested. Information required for each mitigation measure shall include the following:

- (1) Name of the subgrantee, if any;
- (2) State or local contact for the measure;
- (3) Location of the project;
- (4) Description of the measure;
- (5) Cost estimate for the measure;
- (6) Analysis of the measure's cost-effectiveness and substantial risk reduction, consistent with § 206.434(c);
- (7) Work schedule;
- (8) Justification for selection;
- (9) Alternatives considered;
- (10) Environmental information consistent with 44 CFR part 9, Floodplain Management and Protection of Wetlands, and 44 CFR part 10, Environmental Considerations.

(d) *Application submission time limit.* The State's application may be amended as the State identifies and selects local project applications to be funded. The State must submit all local HMGP applications and funding requests for the purpose of identifying new projects to the Regional Director within 12 months of the date of disaster declaration.

(e) *Extensions.* The State may request the Regional Director to extend the application time limit by 30 to 90 day

increments, not to exceed a total of 180 days. The grantee must include a justification in its request.

(f) *FEMA approval.* The application and supplement(s) will be submitted to the FEMA Regional Director for approval. FEMA has final approval authority for funding of all projects.

(g) *Indian tribal grantees.* Indian tribal governments may submit a SF 424 directly to the Regional Director.

Subpart H—Public Assistance  
Eligibility

\* \* \* \* \*

8. Revise § 206.220 to read as follows:

§ 206.220 General.

This subpart provides policies and procedures for determinations of eligibility of applicants for public assistance, eligibility of work, and eligibility of costs for assistance under sections 402, 403, 406, 407, 418, 419,

421(d), 502, and 503 of the Stafford Act. Assistance under this subpart must also conform to requirements of 44 CFR part 201, Mitigation Planning, and 44 CFR part 206, subparts G—Public Assistance Project Administration, I—Public Assistance Insurance Requirements, J—Coastal Barrier Resources Act, and M—Minimum Standards. Regulations under 44 CFR part 9—Floodplain Management and 44 CFR part 10—Environmental Considerations, also apply to this assistance.

9. Section 206.226 is amended by redesignating paragraphs

(b) through (j) as paragraphs (c) through (k), respectively; adding a new paragraph (b); and revising redesignated paragraph (g)(5) to read as follows:

§ 206.226 Restoration of damaged facilities.

\* \* \* \* \*

(b) *Mitigation planning.* In order to receive assistance under this section, as

of November 1, 2003, the State must have in place a FEMA approved State Mitigation Plan in accordance with 44 CFR part 201.

\* \* \* \* \*

(g) \* \* \*

(5) If relocation of a facility is not feasible or cost effective, the Regional Director shall disapprove Federal funding for the original location when he/she determines in accordance with 44 CFR parts 9, 10, 201, or subpart M of this part 206, that restoration in the original location is not allowed. In such cases, an alternative project may be applied for.

\* \* \* \* \*

Dated: February 19, 2002.

Michael D. Brown,  
General Counsel.

[FR Doc. 02–4321 Filed 2–25–02; 8:45 am]

BILLING CODE 6718–05–P



## ANNEX C. HAZARD ANALYSIS

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The City of Lomita (City) hazard identification and ranking was obtained primarily from Hazard Identification exercise. The Hazard Identification exercise was conducted as a participatory Hazard Mitigation Planning Committee (HMPC) exercise to identify the potential hazards within the City. The exercise was facilitated utilizing an automated interactive software spreadsheet program that asked specific questions on potential hazards and then rates them accordingly. These questions guided the team in the correct facilitation and application of the program. The following spreadsheet summarizes the Hazard Identification exercise risk ranking results, including the descriptions of each hazard factor, and provides the specific descriptor choices for each risk factor and description. Additionally, a risk ranking matrix is provided to designate the overall ranking score and categorization of each hazard.

### Hazard Identification and Risk Ranking

Each hazard profile included a profile ranking of the hazard (ranging from low risk to high risk). The HMPC determined this initial profile ranking based on all the hazard identification and profile research summarized and group discussion and evaluation of all of the data, including numerical rankings (1-5) of the following criteria:

- **Consequence/Severity** – How wide spread is the impact area?
- **Secondary Effects** – Could the event trigger another event and separate response?
- **Probability/Frequency** – Historical view of how often this type of event occurs locally and projected recurrence intervals.
- **Warning/Onset** – Advance warning of the event, or none.
- **Duration** – Length of elapsed time where response resources are active.
- **Recovery** – Length of time until lives and property return to normal.





Table C.1 Risk Factors for Hazard Identification

| RISK FACTOR            | DESCRIPTION                                                                                                                                                                                                                                         | DESCRIPTORS                                                                                                        | VALUE |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------|
| PROBABILITY/ FREQUENCY | Prediction of how often a hazard will occur in the future.                                                                                                                                                                                          | Rare event - occurs less than once every 50 years                                                                  | 1     |
|                        |                                                                                                                                                                                                                                                     | Infrequent event - occurs between once every 8 years and once every 50 years (inclusive)                           | 2     |
|                        |                                                                                                                                                                                                                                                     | Regular event - occurs between once a year and once every 7 years                                                  | 3     |
|                        |                                                                                                                                                                                                                                                     | Frequent event - occurs more than once a year                                                                      | 4     |
| CONSEQUENCE/SEVERITY   | Physical Damage - structures and lifelines<br>Economic Impact – loss of function for power, water, sanitation, roads, etc., as applicable                                                                                                           | No damage                                                                                                          | 1     |
|                        |                                                                                                                                                                                                                                                     | Minor/slight damage to buildings and structures, no loss of lifelines                                              | 2     |
|                        |                                                                                                                                                                                                                                                     | Moderate building damage, minor loss of lifelines (less than 12 hours)                                             | 3     |
|                        |                                                                                                                                                                                                                                                     | Moderate building damage, lifeline loss (less than 24 hours)                                                       | 4     |
|                        |                                                                                                                                                                                                                                                     | Extensive building damage, widespread loss of lifelines (water, gas, electricity, sanitation, roads), loss of life | 5     |
| VULNERABILITY          | Impact Area - area impacted by a hazard event,<br>Secondary Impacts - Capability of triggering additional hazards<br>Onset - Period of time between initial recognition of an approaching hazard and when the hazard begins to impact the community | No physical damage, no secondary impacts                                                                           | 1     |
|                        |                                                                                                                                                                                                                                                     | Localized damage area                                                                                              | 2     |
|                        |                                                                                                                                                                                                                                                     | Localized damage area, minor secondary impacts, delayed hazard onset                                               | 3     |
|                        |                                                                                                                                                                                                                                                     | Moderate damage area, moderate secondary impacts, moderate warning time                                            | 4     |
|                        |                                                                                                                                                                                                                                                     | Widespread damage area, significant secondary impacts, no warning time                                             | 5     |

Each profile includes a ranking of the hazard. The hazard rankings were determined by assigning each hazard the appropriate risk factors as described above. The risk factors were then used with a hazard ranking matrix to determine the final hazard score. The following table provides the matrix used for determining each hazard's score.

**Table C.2 Risk Rank Matrix**

| <b>PROBABILITY/<br/>FREQUENCY DESCRIPTION</b>                                                    | <b>RISK RANKING MATRIX</b> |                      |    |    |    |    |    |
|--------------------------------------------------------------------------------------------------|----------------------------|----------------------|----|----|----|----|----|
|                                                                                                  | Probability/Frequency      | Consequence/Severity |    |    |    |    |    |
| Rare Event:<br>Occurs less than once every 50<br>years                                           | Value                      | 1                    | 1  | 2  | 3  | 4  | 5  |
|                                                                                                  | Vulnerability              | 1                    | 1  | 2  | 3  | 4  | 5  |
|                                                                                                  |                            | 2                    | 2  | 4  | 6  | 8  | 10 |
|                                                                                                  |                            | 3                    | 3  | 6  | 9  | 12 | 15 |
|                                                                                                  |                            | 4                    | 4  | 8  | 12 | 16 | 20 |
|                                                                                                  |                            | 5                    | 5  | 10 | 15 | 20 | 25 |
| Infrequent Event:<br>Occurs between once every 8<br>years and once every 50 years<br>(inclusive) | Probability/Frequency      | Consequence/Severity |    |    |    |    |    |
|                                                                                                  | Value                      | 2                    | 1  | 2  | 3  | 4  | 5  |
|                                                                                                  | Vulnerability              | 1                    | 2  | 4  | 6  | 8  | 10 |
|                                                                                                  |                            | 2                    | 4  | 8  | 12 | 16 | 20 |
|                                                                                                  |                            | 3                    | 6  | 12 | 18 | 24 | 30 |
|                                                                                                  |                            | 4                    | 8  | 16 | 24 | 32 | 40 |
|                                                                                                  |                            | 5                    | 10 | 20 | 30 | 40 | 50 |
| Regular Event:<br>Occurs between once a year and<br>once every 7 years                           | Probability/Frequency      | Consequence/Severity |    |    |    |    |    |
|                                                                                                  | Value                      | 3                    | 1  | 2  | 3  | 4  | 5  |
|                                                                                                  | Vulnerability              | 1                    | 3  | 6  | 9  | 12 | 15 |
|                                                                                                  |                            | 2                    | 6  | 12 | 18 | 24 | 30 |
|                                                                                                  |                            | 3                    | 9  | 18 | 27 | 36 | 45 |
|                                                                                                  |                            | 4                    | 12 | 24 | 36 | 48 | 60 |
|                                                                                                  |                            | 5                    | 15 | 30 | 45 | 60 | 75 |

The hazard scores from the Hazard Ranking Matrix were compared to the hazard rank criteria to finally categorize each hazard with a hazard ranking. The table below provides the value determinations for each hazard ranking.

**Table C.3 Risk Rank Categorization**

|                               |               |
|-------------------------------|---------------|
| <b>High Hazard</b>            | <b>50-100</b> |
| <b>Moderately High Hazard</b> | <b>25-49</b>  |
| <b>Moderate Hazard</b>        | <b>15-24</b>  |
| <b>Moderately Low Hazard</b>  | <b>5-14</b>   |
| <b>Low Hazard</b>             | <b>1-4</b>    |

The hazard ranking worksheets are provided in the following pages.

Table C.4 Hazard Identification and Risk Ranking

| <b>EARTHQUAKE</b> | <b>RANK FACTORS</b>  | <b>HAZARD FACTOR DESCRIPTION</b>                                                                                   | <b>RANK</b> |
|-------------------|----------------------|--------------------------------------------------------------------------------------------------------------------|-------------|
|                   | <b>Probability</b>   | Infrequent event - occurs between once every 8 years and once every 50 years (inclusive)                           | 2           |
|                   | <b>Consequence</b>   | Moderate building damage, lifeline loss (less than 24 hours), severe injury or disability                          | 4           |
|                   | <b>Vulnerability</b> | Widespread damage area, significant secondary impacts, no warning time                                             | 5           |
|                   | <b>Risk</b>          | Moderately High                                                                                                    | <b>40</b>   |
|                   | <b>Comments</b>      | Average building age 1920-1960 (40-60 years in age majority)                                                       |             |
| <b>FLOOD</b>      | <b>RANK FACTORS</b>  | <b>HAZARD FACTOR DESCRIPTION</b>                                                                                   | <b>RANK</b> |
|                   | <b>Probability</b>   | Frequent event - occurs more than once a year                                                                      | 4           |
|                   | <b>Consequence</b>   | Minor/slight damage to buildings and structures, no loss of lifelines, first aid injury and no disability          | 2           |
|                   | <b>Vulnerability</b> | Localized damage area, minor secondary impacts, delayed hazard onset                                               | 3           |
|                   | <b>Risk</b>          | Moderate                                                                                                           | <b>24</b>   |
|                   | <b>Comments</b>      | Climate change - increase in precipitation - lots of atmospheric rivers - sediment issues, private property issues |             |

|                       |                      |                                                                                                            |             |
|-----------------------|----------------------|------------------------------------------------------------------------------------------------------------|-------------|
| <b>WINDSTORM</b>      | <b>RANK FACTORS</b>  | <b>HAZARD FACTOR DESCRIPTION</b>                                                                           | <b>RANK</b> |
|                       | <b>Probability</b>   | Frequent event - occurs more than once a year                                                              | 4           |
|                       | <b>Consequence</b>   | Moderate building damage, minor loss of lifelines (less than 12 hours), lost time injury but no disability | 3           |
|                       | <b>Vulnerability</b> | Localized damage area, minor secondary impacts, delayed hazard onset                                       | 3           |
|                       | <b>Risk</b>          | Moderately High                                                                                            | <b>36</b>   |
|                       | <b>Comments</b>      | Frequent occurrence                                                                                        |             |
| <b>WATER SHORTAGE</b> | <b>RANK FACTORS</b>  | <b>HAZARD FACTOR DESCRIPTION</b>                                                                           | <b>RANK</b> |
|                       | <b>Probability</b>   | Regular event - occurs between once a year and once every 7 years                                          | 3           |
|                       | <b>Consequence</b>   | Moderate building damage, lifeline loss (less than 24 hours), severe injury or disability                  | 4           |
|                       | <b>Vulnerability</b> | Localized damage area, minor secondary impacts, delayed hazard onset                                       | 3           |
|                       | <b>Risk</b>          | Moderately High                                                                                            | <b>36</b>   |
|                       | <b>Comments</b>      | Water Supply and Water Quality - 1 dialysis in the city - acute care dependent on City water service       |             |

|                       |                      |                                                                                                                                                                                                                                                                                                                                                                                    |             |
|-----------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>URBAN FIRE</b>     | <b>RANK FACTORS</b>  | <b>HAZARD FACTOR DESCRIPTION</b>                                                                                                                                                                                                                                                                                                                                                   | <b>RANK</b> |
|                       | <b>Probability</b>   | Infrequent event - occurs between once every 8 years and once every 50 years (inclusive)                                                                                                                                                                                                                                                                                           | 2           |
|                       | <b>Consequence</b>   | Moderate building damage, lifeline loss (less than 24 hours), severe injury or disability                                                                                                                                                                                                                                                                                          | 4           |
|                       | <b>Vulnerability</b> | Localized damage area, minor secondary impacts, delayed hazard onset                                                                                                                                                                                                                                                                                                               | 3           |
|                       | <b>Risk</b>          | Moderate                                                                                                                                                                                                                                                                                                                                                                           | <b>24</b>   |
|                       | <b>Comments</b>      | The Team discussed Rolling Hills Estates is on the south/west border and presents a wildfire hazard. The structures on that border are at higher risk of fire. However, once the fire crosses the City border, the impacts would be urban in nature. Separately, the City is centrally located in the middle of multiple Oil and Gas facilities with potential for fire scenarios. |             |
| <b>HAZMAT RELEASE</b> | <b>RANK FACTORS</b>  | <b>HAZARD FACTOR DESCRIPTION</b>                                                                                                                                                                                                                                                                                                                                                   | <b>RANK</b> |
|                       | <b>Probability</b>   | Rare event - occurs less than once every 50 years                                                                                                                                                                                                                                                                                                                                  | 1           |
|                       | <b>Consequence</b>   | Moderate building damage, lifeline loss (less than 24 hours), severe injury or disability                                                                                                                                                                                                                                                                                          | 4           |
|                       | <b>Vulnerability</b> | Widespread damage area, significant secondary impacts, no warning time                                                                                                                                                                                                                                                                                                             | 5           |
|                       | <b>Risk</b>          | Moderate                                                                                                                                                                                                                                                                                                                                                                           | <b>20</b>   |
|                       | <b>Comments</b>      | O&G facilities in the area with release potential - Also including travel corridors traveling with HazMat storage. High volume of travel to the refinery. Western & PCH, Cypress                                                                                                                                                                                                   |             |

| <b>AIRCRAFT<br/>INCIDENT</b> | <b>RANK FACTORS</b>  | <b>HAZARD FACTOR DESCRIPTION</b>                                                          | <b>RANK</b> |
|------------------------------|----------------------|-------------------------------------------------------------------------------------------|-------------|
|                              | <b>Probability</b>   | Infrequent event - occurs between once every 8 years and once every 50 years (inclusive)  | 2           |
|                              | <b>Consequence</b>   | Moderate building damage, lifeline loss (less than 24 hours), severe injury or disability | 4           |
|                              | <b>Vulnerability</b> | Localized damage area                                                                     | 2           |
|                              | <b>Risk</b>          | Moderate                                                                                  | <b>16</b>   |
|                              | <b>Comments</b>      | Torrance Airport borders the West of the City.                                            |             |

# ANNEX D. PUBLIC PARTICIPATION AND PLANNING PROCESS

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Public participation is a crucial component of the Hazard Mitigation Planning process, ensuring that the voices of all community members, including those from vulnerable populations, are incorporated into the development of effective mitigation strategies. For the City of Lomita (City), the planning team prioritized inclusive outreach through a variety of engagement methods.

To ensure a well-rounded outreach effort, the City utilized a combination of digital, in-person, and formal presentation methods to engage residents throughout the hazard mitigation planning process. Outreach activities were intentionally designed to meet people where they are- both physically and in terms of how they consume information. This approach helped the planning team connect with a broader cross-section of the community, including families, older adults, working professionals, and individuals who may be more difficult to reach through traditional communications.

A public survey was launched and hosted on the City's website, offering a convenient and accessible way for residents to share their perspectives on local hazards and preparedness. The survey was promoted across City communication platforms to maximize visibility and encourage participation.

In-person outreach was conducted at several key community events and forums in the City. The planning team operated an outreach booth at the National Night Out event in 2024, which drew strong foot traffic and provided opportunities to distribute materials, explain the hazard mitigation planning process, and engage directly with residents. Valuable feedback was gathered regarding household preparedness levels and preferred methods of receiving emergency information. The team also participated in a smoke alarm installation event, where residents shared concerns not only about immediate life safety during an urban fire or

## City of Lomita- Local Hazard Mitigation Plan Update Survey

### Community Survey

Your engagement in the Local Hazard Mitigation Planning process is vital as it brings diverse perspectives and experiences to the table. As community members, you have unique insights into local hazards and vulnerabilities based on your lived experiences and observations. Your input helps us identify risks more comprehensively and develop targeted strategies that address the specific needs of our community. Together, we can develop a hazard mitigation plan that reflects the collective wisdom and resilience of our community, better preparing us to address future challenges and protect the well-being of all our residents.

This survey is anonymous and your information will be kept confidential. The results of this survey will be included within the LHMP.

Thank you for taking the time to participate. We greatly appreciate your feedback!

1. Do you... (check all that apply)

- ☐ Live in Lomita
- ☐ Work in Lomita
- ☐ Visit Lomita, but live and work elsewhere

2. If you are a current Lomita resident, how long have you lived in Lomita?

- ☐ Less than 1 Year
- ☐ 1 to 5 years
- ☐ 6 to 9 years



disaster but also about the long-term impacts of displacement and recovery. Many emphasized challenges such as skyrocketing rents and limited resources, particularly for seniors and those on fixed incomes. This input underscored the importance of addressing recovery considerations alongside emergency response.

To further broaden participation, the planning team presented updates to the Public Safety and Traffic Commission, which was open to the public and provided another avenue for residents to offer feedback. Finally, a public hearing at a City Council meeting in September 2025 allowed residents to speak on the importance of the City providing reliable emergency preparedness information. One resident highlighted that this type of communication is essential to community safety and resilience.

Together, these activities demonstrate that the City meaningfully involved the public in the hazard mitigation planning process, fulfilling FEMA's requirements for participation while also ensuring that community concerns directly shaped the development of the plan.

## Survey Content and Responses

This section includes the survey questions followed by the responses received. Over a period of several weeks, the City received 125 responses from the public through the online survey. Those responses were tabulated and listed below.

### 1. Do you live in, work in, or visit Lomita?

| <i><b>Answer Choices</b></i>                     | <i><b>Responses</b></i> | <i><b>Number Count</b></i> |
|--------------------------------------------------|-------------------------|----------------------------|
| <i>Live in Lomita</i>                            | 92.31%                  | 12                         |
| <i>Work in Lomita</i>                            | 0%                      | 0                          |
| <i>Visit Lomita, but live and work elsewhere</i> | 7.69%                   | 1                          |
| <i><b>Total</b></i>                              | <b>100%</b>             | <b>13</b>                  |

### 2. If you are currently a Lomita resident, how long have you lived in Lomita?

| <i><b>Answer Choices</b></i> | <i><b>Responses</b></i> | <i><b>Number Count</b></i> |
|------------------------------|-------------------------|----------------------------|
| <i>Less than 1 Year</i>      | 0%                      | 0                          |
| <i>1 to 5 Years</i>          | 0%                      | 0                          |
| <i>6 to 9 Years</i>          | 0%                      | 0                          |
| <i>10 to 19 Years</i>        | 25%                     | 3                          |

| <i>Answer Choices</i> | <i>Responses</i> | <i>Number Count</i> |
|-----------------------|------------------|---------------------|
| 20 Years or More      | 75%              | 9                   |

**3. What is your Age Group?**

| <i>Answer Choices</i> | <i>Responses</i> | <i>Number Count</i> |
|-----------------------|------------------|---------------------|
| 18-24                 | 0%               | 0                   |
| 25-34                 | 0%               | 0                   |
| 35-44                 | 7.69%            | 1                   |
| 45-54                 | 7.69%            | 1                   |
| 55-64                 | 30.77%           | 4                   |
| 65+                   | 53.85%           | 7                   |

**4. In the past five years, have you or someone in your household experienced a disaster such as an earthquake, flood, windstorm, water shortage, or urban fire?**

| <i>Answer Choices</i> | <i>Responses</i> | <i>Number Count</i> |
|-----------------------|------------------|---------------------|
| Yes                   | 15.38%           | 2                   |

|                     |             |           |
|---------------------|-------------|-----------|
| <i>No</i>           | 84.62%      | 11        |
| <b><i>Total</i></b> | <b>100%</b> | <b>13</b> |

**5. If yes, which of these disasters have you or someone in your household experienced?**

| <b><i>Answer Choices</i></b>       | <b><i>Responses</i></b> | <b><i>Number Count</i></b> |
|------------------------------------|-------------------------|----------------------------|
| <i>Earthquake</i>                  | 16.67%                  | 1                          |
| <i>Flood</i>                       | 16.67%                  | 1                          |
| <i>Windstorm</i>                   | 0%                      | 0                          |
| <i>Water Shortage</i>              | 0%                      | 0                          |
| <i>Urban Fire</i>                  | 16.67%                  | 1                          |
| <i>Hazardous Materials Release</i> | 16.67%                  | 1                          |
| <i>Extreme Heat</i>                | 0%                      | 0                          |
| <i>Aircraft Incident</i>           | 0%                      | 0                          |
| <i>None of the Above</i>           | 66.67%                  | 4                          |

**6. What do you believe is the likelihood that these disasters will happen in or impact Lomita?**

|                                    | <i>Very Likely</i> | <i>Likely</i> | <i>Somewhat Likely</i> | <i>Not Likely at All</i> | <i>Total</i> |
|------------------------------------|--------------------|---------------|------------------------|--------------------------|--------------|
| <i>Earthquake</i>                  | 46.15%             | 38.46%        | 15.38%                 | 0.00%                    | 13           |
|                                    | 6                  | 5             | 2                      | 0                        |              |
| <i>Flood</i>                       | 7.69%              | 15.38%        | 23.08%                 | 53.85%                   | 13           |
|                                    | 1                  | 2             | 3                      | 7                        |              |
| <i>Windstorm</i>                   | 15.38%             | 46.15%        | 38.46%                 | 0.00%                    | 13           |
|                                    | 2                  | 6             | 5                      | 0                        |              |
| <i>Water Shortage</i>              | 15.38%             | 30.77%        | 38.46%                 | 15.38%                   | 13           |
|                                    | 2                  | 4             | 5                      | 2                        |              |
| <i>Urban Fire</i>                  | 7.69%              | 15.38%        | 69.23%                 | 7.69%                    | 13           |
|                                    | 1                  | 2             | 9                      | 1                        |              |
| <i>Hazardous Materials Release</i> | 30.77%             | 38.46%        | 0.00%                  | 7.69%                    | 13           |
|                                    | 4                  | 5             | 0                      | 1                        |              |
| <i>Aircraft Incident</i>           | 15.38%             | 53.85%        | 23.08%                 | 7.69%                    | 13           |
|                                    | 2                  | 7             | 3                      | 1                        |              |

**7. How concerned are you about the following hazards occurring in or impacting Lomita?**

|                                    | <i>Not Concerned</i> | <i>Somewhat Concerned</i> | <i>Concerned</i> | <i>Very Concerned</i> | <i>Extremely Concerned</i> | <i>Total</i> |
|------------------------------------|----------------------|---------------------------|------------------|-----------------------|----------------------------|--------------|
| <i>Earthquake</i>                  | 7.69%                | 15.38%                    | 38.46%           | 30.77%                | 7.69%                      |              |
|                                    | 1                    | 2                         | 5                | 4                     | 1                          | 13           |
| <i>Flood</i>                       | 46.15%               | 15.38%                    | 7.69%            | 23.08%                | 7.69%                      |              |
|                                    | 6                    | 2                         | 1                | 3                     | 1                          | 13           |
| <i>Windstorm</i>                   | 25.00%               | 33.33%                    | 16.67%           | 25.00%                | 0.00%                      |              |
|                                    | 3                    | 4                         | 2                | 3                     | 0                          | 13           |
| <i>Water Shortage</i>              | 7.69%                | 53.85%                    | 15.38%           | 7.69%                 | 15.38%                     |              |
|                                    | 1                    | 7                         | 2                | 1                     | 2                          | 13           |
| <i>Urban Fire</i>                  | 15.38%               | 38.46%                    | 23.08%           | 23.08%                | 0.00%                      |              |
|                                    | 2                    | 5                         | 3                | 3                     | 0                          | 13           |
| <i>Hazardous Materials Release</i> | 0.00%                | 30.77%                    | 23.08%           | 38.46%                | 7.69%                      |              |
|                                    | 0                    | 4                         | 3                | 5                     | 1                          | 13           |
| <i>Aircraft Incident</i>           | 7.69%                | 38.46%                    | 23.08%           | 30.77%                | 0.00%                      |              |
|                                    | 1                    | 5                         | 3                | 4                     | 0                          | 13           |

8. Have you ever received or requested information on ways to make your family and/or home safer from local hazards?

| <i>Answer Choices</i> | <i>Responses</i> | <i>Number Count</i> |
|-----------------------|------------------|---------------------|
| Yes                   | 69.23%           | 9                   |
| No                    | 30.77%           | 4                   |
| <b>Total</b>          | <b>100%</b>      | <b>13</b>           |

9. How recently did you receive this information?

| <i>Responses</i>                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>My daughter-in-law has been reading and doing research online for the past year.</i></p> <p><i>Internet</i></p> <p><i>I have done my own research</i></p> <p><i>Over six months ago</i></p> <p><i>5 years</i></p> <p><i>Within the Past Year</i></p> <p><i>2023</i></p> |

**10. From whom did you last receive this information?**

| <b><i>Responses</i></b>                           |
|---------------------------------------------------|
| <i>Lomita City Website Hazard Mitigation Plan</i> |
| <i>FEMA USGS</i>                                  |
| <i>Myself and web searches</i>                    |
| <i>Lomita Sheriff and Fire Department</i>         |
| <i>Mail</i>                                       |
| <i>State and City</i>                             |
| <i>American Red Cross</i>                         |
| <i>Internet, Brochures</i>                        |
| <i>CERT, LACDPH</i>                               |



**11. How prepared is your household to deal with a hazard event if it occurred in Lomita?**

| <i><b>Answer Choices</b></i> | <i><b>Responses</b></i> | <i><b>Number Count</b></i> |
|------------------------------|-------------------------|----------------------------|
| <i>Not at all Prepared</i>   | 7.69%                   | 1                          |
| <i>Somewhat Prepared</i>     | 53.85%                  | 7                          |
| <i>Adequately Prepared</i>   | 38.46%                  | 5                          |
| <i>Well Prepared</i>         | 0%                      | 0                          |
| <i>Very Well Prepared</i>    | 0%                      | 0                          |

**12. What steps, if any, have you or someone in your household taken to prepare for a disaster?**

| <i><b>Responses</b></i>                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>My son, daughter in law, and nephew have put a tarp on my roof for the rain that has produced a flood in my home and still has the damage from it.</i></p> <p><i>Stored food and extra water</i></p> <p><i>Extra food, water, batteries, etc., Earthquake Preparedness</i></p> <p><i>Water, Food, and Medicine, Emergency Supplies, Family Notification rules, Alarm system</i></p> |

| <b>Responses</b>                                                                                         |
|----------------------------------------------------------------------------------------------------------|
| <i>Emergency supply of food and water. Generator in place.</i>                                           |
| <i>Water, batteries</i>                                                                                  |
| <i>Food, Water, Radio, etc.</i>                                                                          |
| <i>Emergency supplies in backyard</i>                                                                    |
| <i>Food and Water Supply, Smoke alarms, well functioning house (no leaks, cracks, items in disarray)</i> |
| <i>Keep extra water, flashlights, money, first aid, food, clothes, and shoes available</i>               |

**13. What are the best ways for you to receive information about making your home and family safer from local disasters?**  
**(Please check all that apply)**

| <b>Answer Choices</b>          | <b>Responses</b> | <b>Number Count</b> |
|--------------------------------|------------------|---------------------|
| <i>City Newsletters</i>        | 69.23%           | 9                   |
| <i>City Website</i>            | 30.77%           | 4                   |
| <i>Informational Brochures</i> | 53.85%           | 7                   |

| <b>Answer Choices</b>                   | <b>Responses</b> | <b>Number Count</b> |
|-----------------------------------------|------------------|---------------------|
| <i>Public Meetings or Workshops</i>     | 23.08%           | 3                   |
| <i>Social Media</i>                     | 23.08%           | 3                   |
| <i>National Weather Service Website</i> | 30.77%           | 4                   |
| <i>Fire Department</i>                  | 38.46%           | 5                   |
| <i>Law Enforcement</i>                  | 38.46%           | 5                   |
| <i>Faith-Based Institutions</i>         | 0.00%            | 0                   |
| <i>CERT Classes</i>                     | 15.38%           | 2                   |
| <i>Public Awareness Campaigns</i>       | 38.46%           | 5                   |
| <i>Community Safety Events</i>          | 46.15%           | 6                   |
| <i>Fair Booths</i>                      | 23.08%           | 3                   |
| <i>Chamber of Commerce</i>              | 7.69%            | 1                   |
| <i>Non-Governmental Organizations</i>   | 0.00%            | 0                   |
| <i>Email</i>                            | 69.23%           | 9                   |

| <b><i>Answer Choices</i></b> | <b><i>Responses</i></b> | <b><i>Number Count</i></b> |
|------------------------------|-------------------------|----------------------------|
| <i>Direct Mail</i>           | 46.15%                  | 6                          |
| <i>Word of Mouth</i>         | 23.08%                  | 3                          |

## Inferences

The results of the public survey served three main purposes. It created a profile of the group of responders, provided insight regarding the methods the public would like to receive safety information, and, lastly, it provided the Hazard Mitigation Planning Committee (HMPC) with the public's opinion of the hazard ranking. Conclusions drawn from the collected responses for each of these areas are discussed in more detail in the following subsections

### Participant Profile

The public survey responses provided a window into the perspectives of the City's community members, particularly long-term residents and older adults. Most respondents reported living in the City for two decades or more, highlighting a population with deep roots, historical knowledge of local conditions, and a vested interest in the City's safety and resilience.

The age profile of participants also stood out. More than half identified as age 65 or older, with a substantial share between ages 55 and 64. This reflects a strong representation of seniors in the City's hazard planning process and highlights the importance of considering issues such as fixed incomes, mobility limitations, and recovery challenges when disasters occur.

While a smaller portion of respondents indicated that they or their households had personally experienced disasters in recent years, those who did cited events such as earthquakes, floods, urban fire, and hazardous materials releases. These experiences informed perceptions of hazard risk, with earthquakes consistently viewed as both highly likely and highly concerning. By contrast, hazards such as floods, windstorms, and urban fires were often rated as less likely or less concerning, though still recognized as potential threats.

Feedback collected at a community smoke alarm installation event reinforced these themes. Residents expressed that during an urban fire or similar emergency, their primary concern is not only immediate life safety but also the longer-term displacement and recovery that follows. Several noted that skyrocketing rents and limited resources



could create significant hardships, particularly for seniors and those on fixed incomes, if they were forced from their homes. This perspective highlights the community's understanding that disaster recovery extends well beyond the emergency itself.

In terms of household preparedness, most participants described taking tangible steps such as storing food, water, batteries, and medical supplies, installing smoke alarms, or maintaining backup power sources. However, few indicated that they felt “well prepared” or “very well prepared,” suggesting that while residents recognize the importance of preparedness, many still see room for improvement.

Overall, the survey responses painted a picture of a community that is engaged and realistic about hazard risks and strongly represented by long-term residents.

### **Methods for Successful Outreach**

Public education and outreach are essential components of hazard mitigation, as they help build community awareness, encourage preparedness behaviors, and reduce the impacts of future hazard events. The survey results and in person outreach throughout the planning process provided useful insights into how City residents prefer to receive this information.

City newsletters and direct email were the most frequently selected options, indicating a strong preference for direct, personalized communication. Informational brochures and community safety events also ranked highly, demonstrating that many residents continue to value tangible resources and face-to-face opportunities to learn about preparedness. Other popular sources included direct communication from trusted authorities such as the Fire Department and Sheriff's Department, as well as public awareness campaigns.



In addition to the survey, in-person outreach efforts during the planning process provided further perspective. At the National Night Out event, HMPC members staffed a booth and engaged with a steady stream of residents. Many shared valuable information about their personal preparedness levels and the communication channels they trust most. The booth provided a highly visible and effective opportunity for two-way dialogue, reinforcing that community events are an important avenue for hazard education.

The public hearing held at a City Council meeting in September 2025 also proved useful. One resident spoke during the session and emphasized the importance of the City providing accessible and reliable emergency preparedness information to the community. This feedback, though brief, validated the broader outreach effort and highlighted that residents see a clear role for the City in leading preparedness initiatives.

The City website was also selected by some respondents, though it is important to recognize that online resources may be more useful to residents who are already comfortable seeking information digitally. Seniors in particular emphasized a preference for receiving printed materials in advance of meetings or events, allowing them time to review and consider the information before providing input. A two-step outreach process—first distributing materials and then hosting a follow-up opportunity for feedback—may therefore be particularly effective for engaging older residents in the City.

Taken together, these findings suggest that the most successful outreach strategy will combine traditional communication methods, such as newsletters, mail, and printed brochures, with targeted use of digital tools, trusted messengers, and in-person community events. By aligning outreach with these preferences, the City can strengthen its connection with the community and encourage broader participation in hazard preparedness efforts. As the City moves forward with the implementation of mitigation strategies, it will continue to explore how best to integrate these preferences into public awareness campaigns.

### **Hazard Profiling**

As part of the survey, residents were asked to rate the likelihood and their level of concern for various hazards. Earthquakes emerged as the most pressing hazard, with nearly all participants rating them as “very likely” or “likely” to impact the City and the majority expressing concern or high concern. Hazardous materials releases and aircraft incidents were also identified as hazards of notable concern, with many respondents recognizing the City’s location near transportation corridors and industrial areas as a source of risk.

By contrast, floods, windstorms, and urban fires were generally perceived as less likely or less concerning. However, respondents did acknowledge the potential for water shortages and power disruptions to affect daily life, suggesting an awareness of how climate conditions and infrastructure reliability contribute to community vulnerability.

When reviewing these results alongside HMPC rankings, the committee noted that while technical assessments highlight the importance of hazards such as flooding or hazardous

materials releases, the public tends to prioritize those with direct, personal consequences. These findings underscore the value of incorporating both professional analysis and community perception into hazard mitigation planning.

The HMPC concluded that public input should continue to guide the City's efforts to prioritize actions that address the hazards residents find most concerning, such as earthquakes and hazardous materials releases. At the same time, the City will continue to educate the public on hazards that may not be top of mind but still present risks to safety and infrastructure. As such, the HMPC intends for the City to continue referencing this feedback as a way to meaningfully incorporate public opinion into future mitigation planning and implementation efforts.

## **Potential Hazard Mitigation Planning Committee Participants**

The following list outlines potential HMPC participants that were invited to participate in the Plan update. Documentation of invitations to be included during the plan update process can be found at the end of this Annex.

- |                                                           |                                                         |
|-----------------------------------------------------------|---------------------------------------------------------|
| 1. City of Lomita Public Works                            | 9. Los Angeles County Office of<br>Emergency Management |
| 2. City of Lomita City Manager's Office                   |                                                         |
| 3. City of Lomita Community<br>Development                | 10. City of Lomita Chamber of<br>Commerce               |
| 4. City of Lomita Planning Division                       | 11. Los Angeles Unified School District                 |
| 5. City of Lomita Public Safety and<br>Traffic Commission | 12. City of Hermosa Beach                               |
| 6. Area G Disaster Management Area                        | 13. City of Rolling Hills Estates                       |
| 7. Los Angeles County Fire<br>Department                  | 14. Lomita Manor, managed by<br>HumanGood               |
| 8. Los Angeles County Sheriff's<br>Department             | 15. Lomita CERT                                         |

## **Planning Process**

The following sections provide additional information and supporting documentation about the planning process implemented by the Hazard Mitigation Planning Committee to update



the Hazard Mitigation Plan. For descriptions of the content of each Hazard Mitigation Planning Committee meeting, please refer to Chapter 1.

# City of Lomita's Local Hazard Mitigation Plan (LHMP) Update

## *What is an LHMP?*

An LHMP is a plan that seeks to enhance the resilience of communities, reducing their vulnerability to damage, loss, or disruption from natural or human-caused hazards. The planning process includes assessing the risk of hazards that pose a risk to the community, identifying vulnerabilities within the community, documenting the resources for risk reduction, and identifying and developing mitigation strategies that will improve the City's resiliency. The resulting document, the LHMP, serves as a municipality's guide for enhancing community resilience.

## *What Hazards Will the LHMP Protect Against?*

|            |                |                             |                   |
|------------|----------------|-----------------------------|-------------------|
| Earthquake | Water Shortage | Flood                       | Extreme Heat      |
| Windstorm  | Urban Fire     | Hazardous Materials Release | Aircraft Incident |

# City of Lomita

## Local Hazard Mitigation Plan (LHMP) Update

**What is an LHMP?** An LHMP is a plan that seeks to enhance the resilience of communities, reducing their vulnerability to damage, loss, or disruption from natural or human-caused hazards. The planning process includes assessing the risk of hazards that pose a risk to the community, identifying vulnerabilities within the community, documenting the resources for risk reduction, and identifying and developing mitigation strategies that will improve the City's resiliency. The resulting document, the LHMP, serves as a municipality's guide for enhancing community resilience.

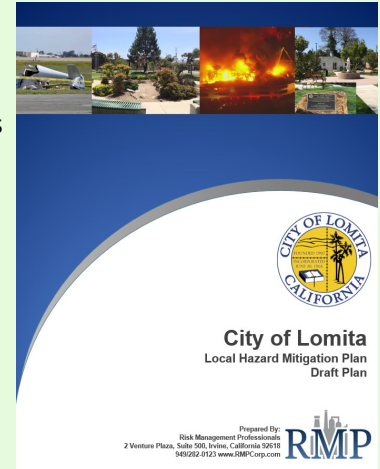
**Why Have an LHMP?** The update of the City's LHMP will not only ensure that the City is eligible to receive FEMA hazard mitigation funds but will also lead the City in developing a safer, more sustainable community. While the City cannot entirely eliminate natural and human-caused risks to the community, the LHMP aims to enhance community safety. By conducting a thorough evaluation of potential threats and crafting a unified approach to address them, the LHMP fosters better coordination and collaboration among the City, public agencies, businesses, service providers, and residents. Together, these efforts strive to minimize the impacts of both natural and human-induced hazards on the community.

**How is the City's LHMP Being Prepared?** The City has established a Hazard Mitigation Planning Committee (HMPC), featuring representatives from numerous City departments, and is aided by essential stakeholders and technical advisors. Together, these contributors constitute the Project Team responsible for steering the overall development of the City's LHMP.

### **What Hazards Will the LHMP Protect Against?**

|            |                |                             |                   |
|------------|----------------|-----------------------------|-------------------|
| Earthquake | Water Shortage | Flood                       | Extreme Heat      |
| Windstorm  | Urban Fire     | Hazardous Materials Release | Aircraft Incident |

**Why Get Involved?** Your engagement in the planning process is vital as it brings diverse perspectives and experiences to the table. As community members, you have unique insights into local hazards and vulnerabilities based on your lived experiences and observations. Your input helps us identify risks more comprehensively and develop targeted strategies that address the specific needs of our community. Together, we can develop a hazard mitigation plan that reflects the collective wisdom and resilience of our community, better preparing us to address future challenges and protect the well-being of all our residents.





## NOTICE OF CITY COUNCIL REORGANIZATION

WHEREAS, at its December 5, 2023, regular meeting, the City Council of Lomita reorganized as follows:

Mayor Pro Tem  
Council Member  
Council Member  
Council Member

Term Expires 2025  
Term Expires 2025  
Term Expires 2025  
Term Expires 2025

City Manager  
Assistant City Manager  
Director of Administrative Services  
Public Works Director  
P.E. Director of Community & Economic Development  
AICP Director of Recreation and Facilities  
MMC City Clerk

7th day of December 2023

Deputy City Clerk

CITY HALL OFFICES • 24300 NARBONNE AVENUE, LOMITA • CALIFORNIA 90717  
(310) 325-7110 • FAX (310) 325-4024 • www.lomitacity.com

## NOTICE UNDER THE AMERICANS WITH DISABILITIES ACT

In accordance with the requirements of Title II of the Americans with Disabilities Act of 1990 ("ADA") and Section 504 of the Rehabilitation Act of 1973, the City of Lomita will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs, or activities.

**Employment:** The City of Lomita does not discriminate on the basis of disability in its hiring or employment practices and complies with all regulations promulgated by the U.S. Equal Employment Opportunity Commission under Title I of the ADA.

**Effective Communication:** The City of Lomita will generally, upon request, provide appropriate aids and services leading to effective communication for qualified persons with disabilities so they can participate equally in City programs, services, and activities, including qualified sign language interpreters, documents in Braille, and other ways of making information and communications accessible to people who have speech, hearing, or vision impairments.

**Modifications to Policies and Procedures:** The City of Lomita will make all reasonable modifications to policies and programs to ensure that people with disabilities have an equal opportunity to enjoy all of its programs, services, and activities. For example, individuals with service animals are welcomed in City offices, even where pets are generally prohibited.

Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a program, service, or activity of the City should contact Deborah Dixon, ADA Coordinator, at the contact information listed below as soon as possible but no later than 48 hours before the scheduled event.

The ADA does not require the City to take any action that would fundamentally alter the nature of its programs or services, or impose an undue financial or administrative burden.

Complaints that a program, service, or activity of the City of Lomita is not accessible to persons with disabilities should be directed to:

Deborah Dixon, ADA Coordinator  
24300 Narbonne Avenue, Lomita, CA 90717  
d.dixon@lomitacity.com (310) 325-7110, x144  
California Relay Service: dial 711

The City of Lomita will not place a surcharge on a particular individual with a disability or any group of individuals with disabilities to cover the cost of providing auxiliary aids/services or reasonable modifications of policy, such as retrieving items from locations that are open to the public but are not accessible to persons who use wheelchairs.

This notice is available in alternate formats from the ADA Coordinator.

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(310) 325-7110 • FAX (310) 325-4024 • www.lomitacity.com

may be used by the City of Lomita for the benefit of the City of Lomita. The City of Lomita related complaints of disability discrimination.

The City of Lomita wants to hear concerns and accessible programs, services, and activities. A grievance can be filed by completing the City's grievance form. It is preferred that the formal grievance be filed with a complaint, concern, or complaint. Alternative methods of filing a grievance include: a personal interview or a tape recording of the personal interview upon request. If additional assistance is needed, the complaint should be filed with the ADA Coordinator. The complaint should be filed as soon as possible but no later than 30 days after the date of the alleged discrimination.

Deborah Dixon, ADA Coordinator  
24300 Narbonne Avenue, Lomita, CA 90717  
d.dixon@lomitacity.com (310) 325-7110, x144  
California Relay Service: dial 711

Within 30 calendar days after receipt of the complaint, the ADA Coordinator will meet with the complainant to discuss the complaint. Within 30 calendar days of the meeting, the ADA Coordinator will respond in writing, and, where appropriate, in a format accessible to the complainant. If the response by the ADA Coordinator or the City Manager or his/her designee, and response to the City for at least three years.



## NOTICE TO THE PUBLIC: In compliance with the requirements of Government Code Sections 54970-54974:

On or before December 31 of each year, each legislative body shall prepare and submit to the City Council a list of all regular and ongoing boards, commissions, committees, and advisory groups, which are appointed by the legislative body of the local agency, known as the Local Appointments List.

## PLANNING COMMISSION - 7 Members - Meets 2nd Monday of each month

Works with the Planning Department for the orderly growth and development of the City. It holds hearings, and submits recommendations to the City Council on amendments to the Zoning Ordinance, tentative tract maps, and other matters relating to the City's general plan, permits, variances and other use permits, all of which decisions are subject to the City Council. Commissioners serve four-year terms and are subject to reappointment.

| NAME             | TERM                |
|------------------|---------------------|
| Bob Steinbach    | Jun 2023 - Jun 2025 |
| Steven Cammarata | Jun 2023 - Jun 2025 |
| Joaquin Santos   | Jun 2023 - Jun 2025 |
| Michael Graf     | Jun 2023 - Jun 2025 |
| Monica Dever     | Jun 2023 - Jun 2025 |
| Jay Martingly    | Jun 2023 - Jun 2025 |
| Brenda Stephens  | Jun 2023 - Jun 2025 |

## PARKS AND RECREATION COMMISSION - 5 Members - Meets 1st Monday of each month at 6:00 p.m. in the City Hall Commission Conference Room

Advises the City Council in all matters pertaining to public recreation and leisure facilities. Commissioners serve four-year terms.

| NAME             | TERM                |
|------------------|---------------------|
| Katy Tamm        | Jun 2023 - Jun 2025 |
| Lindsay Colbert  | Jun 2023 - Jun 2025 |
| Cecilia Torrente | Jun 2023 - Jun 2025 |
| Carol Graf       | Jun 2023 - Jun 2025 |
| Terry Winn       | Jun 2023 - Jun 2025 |

## PUBLIC SAFETY AND TRAFFIC COMMISSION 5 Members - Meets 3rd Monday of each month at 6:00 p.m. in the City Hall Commission Conference Room

Reviews and advises the City Council on traffic issues, including signs, no parking zones, street sweeping, pedestrian safety, enforcement, striping changes, and other related items. Reviews issues of concern to public safety, such as police and fire preparedness, earthquake safety and other related items. Protects the safety and welfare of all Lomita residents and promotes the City's safety and welfare. Commissioners serve four-year terms and are subject to reappointment.

| NAME           | TERM                |
|----------------|---------------------|
| Mike Cozzolino | Jun 2023 - Jun 2025 |
| Irene Kurata   | Jun 2023 - Jun 2025 |
| John Ballard   | Jun 2023 - Jun 2025 |
| Jessica Pace   | Jun 2023 - Jun 2025 |
| John Carmody   | Jun 2023 - Jun 2025 |

## How You Can Get INVOLVED:

Join us during public meetings and workshops! Share your experiences and insights with us through the online survey located here: [www.surveymonkey.com/r/78WQLT8](http://www.surveymonkey.com/r/78WQLT8) Help us reach more people! Encourage your friends, family, and neighbors to get involved in the planning process.

To learn more about upcoming events, access resources, or get involved, refer to the City's website for the latest information and updates.



## Local Hazard Mitigation Plan Update

### WHAT IS A LOCAL HAZARD MITIGATION PLAN (LHMP)?

An LHMP is a plan that seeks to enhance the resilience of communities, reducing their vulnerability to damage, loss, or disruption from natural or human-caused hazards. The planning process includes assessing the risk of hazards that pose a risk to the community, identifying vulnerabilities within the community, documenting the resources for risk reduction, and identifying and developing mitigation strategies that will improve the City's resiliency.

### WHY IS LOMITA UPDATING THE LHMP?

The update of the LHMP not only leads the City in developing a safer, more sustainable community for its residents and businesses, but also ensures that the City is eligible to receive FEMA Hazard Mitigation Funds to improve community resiliency!

### CITY COUNCIL

BILL UPHOFF  
MARK A. WARONEK  
JAMES GAZLEY  
CINDY KILAWA  
BARRY WAITE



CITY OF LOMITA

### ADMINISTRATION

CITY MANAGER  
ANDREW VIALPANDO

July 12, 2024

Public Notice

Re: Street Reconstruction - Zone G, Phase I; Notice of Extending Bid Due Date

To whom it may concern,

The purpose of this letter is to provide notice that the City of Lomita is extending the bid opening date for the Street Reconstruction - Zone G, Phase I project from July 25, 2024, to August 8, 2024 at 1:00 pm.

All other terms of the Notice to Bid documents remain the same.

If you have any questions, please contact the undersigned at 310-304 4968.

Regards,

F. J. Janda

Frederic Aboujaoude, P.E.  
Principal Engineer

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(310) 325-7110 • FAX (310) 325-4024 • www.lomitacity.com

Updated June 18, 2024



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**FW: Lomita's LHMP Update - Planning Team Needed**

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**From** Lina Hernandez <lina.hernandez@lomitacity.com>

**Date** Thu 1/25/2024 4:12 PM

**To** Shireen Kulkarni <Shireen.Kulkarni@rmppcorp.com>; Juan Ibarra <j.ibarra@lomitacity.com>

For your reference/records, these were the emails BCC'd. Juan, if I missed anyone, please feel free to forward.

As I receive confirmations, I will add them to the HMPC list. Shireen do you have a cloud service we can upload this information to so it's accessible to you and us? Thanks.

Brianna Rindge <b.rindge@lomitacity.com>;  
Laura MacMorran <l.macmorran@lomitacity.com>;  
Carla Dillon <c.dillon@lomitacity.com>;  
[jmkellog@lasd.org](mailto:jmkellog@lasd.org);  
Okamoto, Daniel J. <djokamot@lasd.org>;  
Rosemary Vivero <Rosemary.Vivero@fire.lacounty.gov>;  
Bennett, Brian <Brian.Bennett@fire.lacounty.gov>;  
Lesley Uribe <Lesley.Uribe@HumanGood.org>;  
Heidi Butzine <heidi@lomitachamber.org>;  
Brandy Villanueva <bvillanueva@areag-laco.org>;  
Maurice Wright <MWright@hermosabeach.gov>;  
Jessica Slawson <jessicas@rollinghillsestates.gov>;  
sharnell.blevins@lausd.net; Lezhanskyy,  
Luka <luka.lezhanskyy@redcross.org>;  
[lindsey.michele@sbcglobal.net](mailto:lindsey.michele@sbcglobal.net);  
[cegraf@att.net](mailto:cegraf@att.net);  
[katy\\_tamer@yahoo.com](mailto:katy_tamer@yahoo.com);  
[terrywinn1@hotmail.com](mailto:terrywinn1@hotmail.com);  
[cecileandmightyshow@gmail.com](mailto:cecileandmightyshow@gmail.com);  
[jccarmody2002@yahoo.com](mailto:jccarmody2002@yahoo.com);  
[I\\_Kurata@yahoo.com](mailto:I_Kurata@yahoo.com);  
[johnballard1@ca.rr.com](mailto:johnballard1@ca.rr.com);  
[michaelcozzolino@ymail.com](mailto:michaelcozzolino@ymail.com);  
[jessiqapacerealtor@gmail.com](mailto:jessiqapacerealtor@gmail.com);  
[monicamdever@yahoo.com](mailto:monicamdever@yahoo.com);  
[m\\_graf@att.net](mailto:m_graf@att.net);  
[joaquinsantos1215@gmail.com](mailto:joaquinsantos1215@gmail.com);  
[JayMattingly1@gmail.com](mailto:JayMattingly1@gmail.com);  
[cammarata24@gmail.com](mailto:cammarata24@gmail.com);  
[bsteinbach427@yahoo.com](mailto:bsteinbach427@yahoo.com);  
[brenda90717@gmail.com](mailto:brenda90717@gmail.com);  
Mike Sansbury <m.sansbury@lomitacity.com>

**LINA HERNANDEZ** | City of Lomita | Senior Management Analyst

24300 Narbonne Avenue | Lomita, CA 90717

**Tel:** (310) 325-7110 x 151 | **Email:** [lina.hernandez@lomitacity.com](mailto:lina.hernandez@lomitacity.com)

**Website:** [www.lomitacity.com](http://www.lomitacity.com)

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**From:** Lina Hernandez

**Sent:** Thursday, January 25, 2024 4:08 PM

**Cc:** Shireen Kulkarni <Shireen.Kulkarni@rmppcorp.com>; Juan Ibarra <j.ibarra@lomitacity.com>

**Subject:** Lomita's LHMP Update - Planning Team Needed

Dear Staff and Community Partners,

The City of Lomita is embarking on an update to its Local Hazard Mitigation Plan (LHMP). The LHMP assesses hazard vulnerabilities and identifies mitigation actions that jurisdictions will pursue in order to reduce the level of injury, property damage, and community. Having an LHMP which has been approved by the Federal Emergency Management Agency (FEMA) grants eligibility to the city for Hazard Mitigation Grant Program (HMGP) and Building Resilient Infrastructure and Communities (BRIC) grant funding.

We are assembling a planning team as part of the process, with members drawn from numerous departments. The City of Lomita would like to invite you (or a member of your team) to participate in the Hazard Mitigation Planning Committee (HMPC) meetings to guide the update process. During the HMPC meetings, you will have the opportunity to provide background knowledge and experience relevant to the department. We are planning on meeting once a month at City Hall and will be sending out our first meeting invitation shortly.

Team Meeting #1: Project Overview/Hazard Identification and Profiling

Team Meeting #2: Goals and Objectives

Team Meeting #3: Vulnerability Assessment

Team Meeting #4: Mitigation Strategy Development

Team Meeting #5: Benefit-Cost Review

Please confirm your interest in participating in this important community project by Wednesday, January 31. If you cannot participate but know someone from our community who may be interested, please pass along the invitation. Thank you in advance for your consideration.

Best,  
Lina

**LINA HERNANDEZ** | City of Lomita | Senior Management Analyst

24300 Narbonne Avenue | Lomita, CA 90717

**Tel:** (310) 325-7110 x 151 | **Email:** [lina.hernandez@lomitacity.com](mailto:lina.hernandez@lomitacity.com)

**Website:** [www.lomitacity.com](http://www.lomitacity.com)

**City of Lomita**  
**HAZARD MITIGATION PLAN-**  
**Steering Committee Meeting #1**

March 4, 2024

| Name              | Company                         | Position               | Email Address                 | Phone #                                  |
|-------------------|---------------------------------|------------------------|-------------------------------|------------------------------------------|
| OKAMOTO           | LASD                            | DEPUTY                 | djolcamot@lasd.org            | (213) 420-2887                           |
| MCCOY             | LASD                            | SERGEANT               | TMMCCOY@LASD.org              | (310) 891-3227                           |
| KELLOGG           | LASD                            | DEPUTY                 | JMKELLOGG@LASD.org            | (310) 539-1661                           |
| Lesley Uribe      | LOM                             | Admin.                 | lesley.uribe@humango.org      | 310-325-7055                             |
| Juan Ibarra       | City of Lomita                  | Administrative Analyst | j.ibarra@lomita-city.com      | 310-325-7110 x107                        |
| JOHN BALCARA      | SBHIS                           | INSURANCE AGENT        | JBALLARD@SBHIS.NET            | 310, 713, 9560                           |
| Brandy Villanueva | Area G Disaster Management Area | Area G DMAC            | brillanueva@areag-laco.org    | 310-425-7995 cell<br>310-316-0055 office |
| Lina Hernandez    | City of Lomita                  | Gr. Mgmt Analyst       | lina.hernandez@lomitacity.com | 310-325-7110 x151                        |

[illegible]





# **CITY OF LOMITA**

## **HAZARD MITIGATION PLAN UPDATE**

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**Shireen Kulkarni**  
**Ryan Bray**

Risk Management Professionals, Inc.  
(949) 282-0123  
[www.RMPCorp.com](http://www.RMPCorp.com)

# MEETING AGENDA

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- Project Overview and Background
- Steering Committee Goals
- Risk Assessment Background
- Hazard Identification and Ranking



# PROJECT OVERVIEW

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# DISASTER MITIGATION ACTION OF 2000

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- Revitalized Federal Planning Requirements
  - State and Local Hazard Mitigation Plans
  - Plans must be updated every five years
- Federal Grant Funding Eligibility
  - Hazard Mitigation Grant Program (HMGP)
  - Building Resilient Infrastructure Communities (BRIC)
- Disaster Mitigation Act of 2000 is intended to facilitate cooperation between state and local authorities on risk reduction measures and to expedite funding allocation



# PUBLIC PROCESS

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## DMA 2000 Stresses Public Participation:

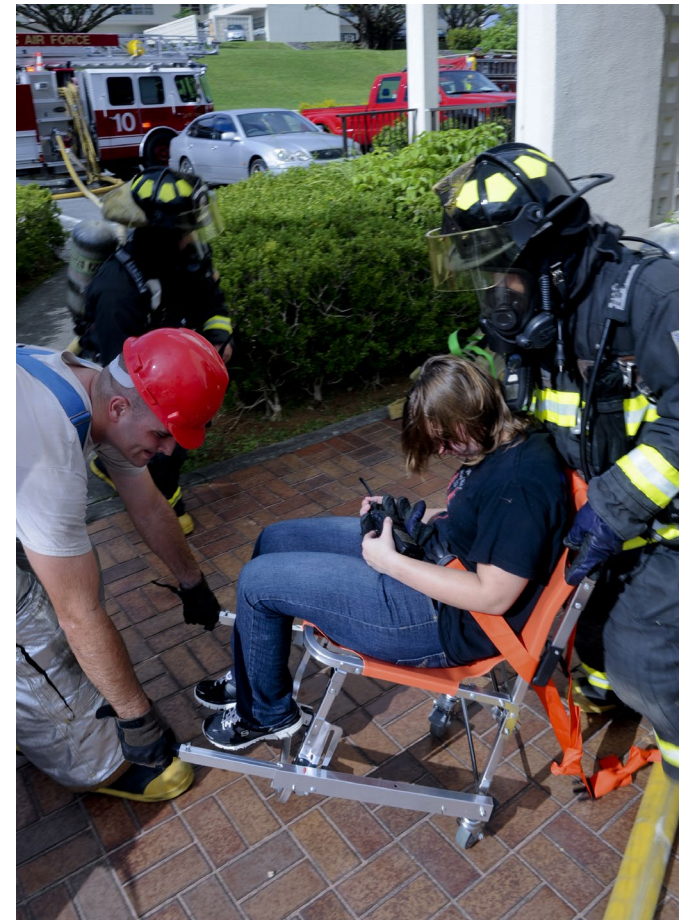
- An open public involvement process that is comprehensive, continuous and starts early
- Coordination with neighboring communities and various interest groups in Plan development



# FOCUS ON SENSITIVE POPULATIONS

- New guidance requires a targeted effort to address portions of the population which may be at greater risk to the impacts of a hazard event.
- Identifying Factors
  - Age – Maturity & Youth
    - Persons under 5 Years – 5.6%
    - Persons over 65 Years – 17.0%
  - Economic Standing
    - Persons in poverty – 12.1%
  - Limited English Proficiency
    - Spanish, Asian/Pacific Island Languages, Other Indo-European languages– 8.4%
  - Disabilities(Mobility/Cognitive)
    - With a disability– 9.4%

Source: U.S. Census Bureau (2022 American Community Survey 5-Year Estimates)



# FEMA'S NEW GUIDANCE ON STAKEHOLDERS

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Local/Regional agencies  
involved in Hazard  
Mitigation activities  
(Public works, emergency  
management)

Agencies that have the  
authority to regulate  
development (Zoning,  
planning, community, and  
economic development  
departments)

Neighboring Communities  
(Adjacent local  
governments)

Representatives of  
Businesses, Academia,  
and other Private  
Organizations (Private  
utilities)

Representatives of  
Nonprofit Organizations  
(Housing, healthcare, or  
social service agencies)



# CLIMATE CHANGE

---

- California Adaptation Planning Guide (APG) released Spring 2020
- APG released in response to several Executive Orders encouraging research of and response to climate change
- The City of Lomita is in the South-Western portion of Los Angeles County. The City should consider some of the following hazards
  - Increased Temperatures
  - Reduced Precipitation
  - Sea Level Rise
  - Wildfire Risk
  - Public Health (heat and air quality)



# STEERING COMMITTEE GOALS

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- Review existing Plan for implementation
- Review the list of potential hazards and add additional hazards for the revision
- Determine the hazard impacts throughout the City
- Interface with partner agencies to determine existing mitigation measures
- Develop possible approaches to projects which will reduce the impacts
- Prioritize mitigation projects for implementation



# **RISK ASSESSMENT METHODOLOGY**

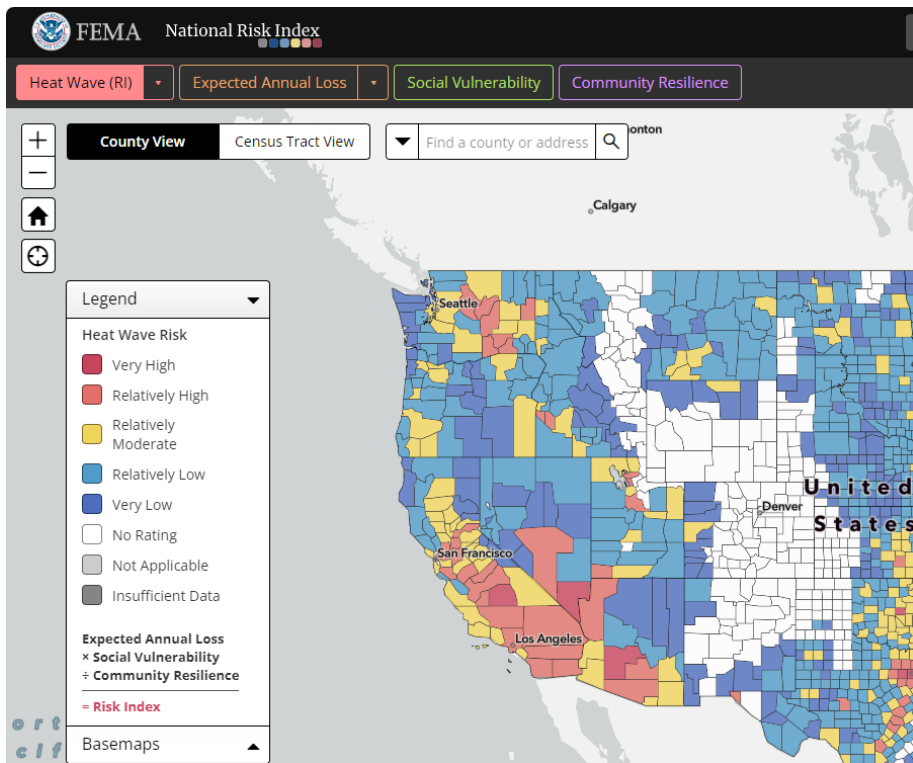
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# RISK ASSESSMENT METHODOLOGY

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- Risk Assessment provides the foundation for the mitigation planning process, which is focused on identifying and prioritizing actions to reduce risk to hazards
- FEMA recommended steps for conducting a risk assessment
  - Describe Hazards
  - Identify Community Assets
  - Analyze Risks
  - Summarize Vulnerability
- Risk Management Professionals incorporates each of these steps into the Plan update process and has acquired CalOES and FEMA approval using this methodology many times.

# FEMA'S NATIONAL RISK INDEX



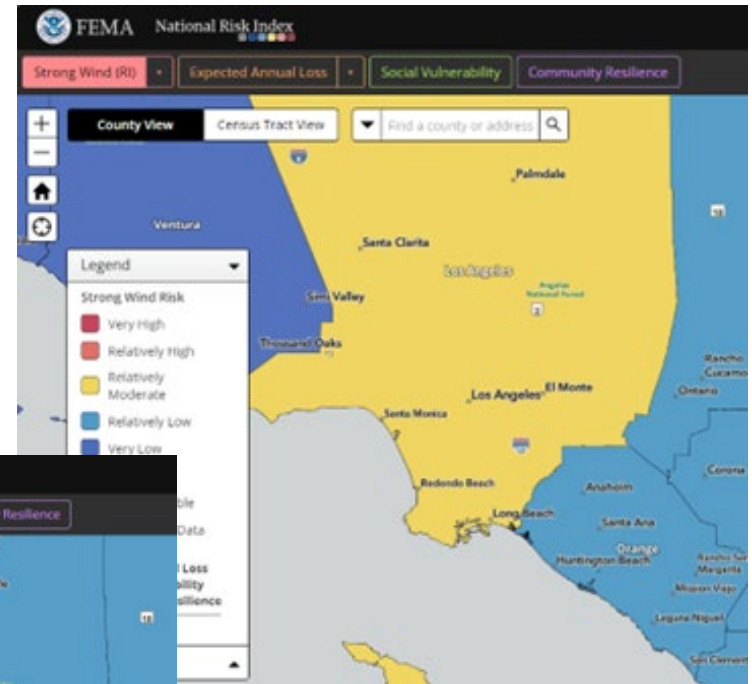
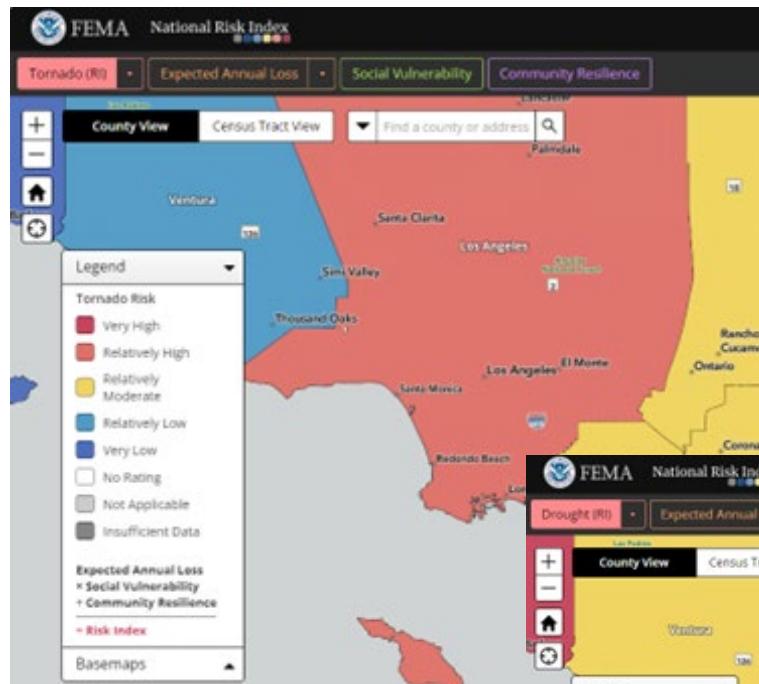
- The National Risk Index is a dataset and online tool to help illustrate the United States communities most at risk for 18 natural hazards. It was designed and built by FEMA in close collaboration with various stakeholders and partners in academia, local, state and federal government, and private industry.
- The Risk Index leverages available source data for natural hazard and community risk factors to develop a baseline risk measurement for each United States county and Census tract.

# FEMA'S NATIONAL RISK INDEX- IDENTIFIED HAZARDS

---

- Drought: **Relatively Low**
- Earthquake: **Very High**
- Heat Wave: **Relatively High**
- Landslide: **Relatively High**
- Lightning: **Relatively High**
- Riverine Flooding: **Relatively Moderate**
- Strong Wind: **Relatively Moderate**
- Tornado: **Relatively High**
- Tsunami: **Relatively Moderate**
- Wildfire: **Very High**

# FEMA'S NATIONAL RISK INDEX





# RISK ASSESSMENT – HAZARDS FROM THE PREVIOUS PLAN

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- Earthquake
- Localized Flooding
- Windstorm
- Drought

# RISK ASSESSMENT – POTENTIAL HAZARDS

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## HAZARDS RESULTING FROM CLIMATE CHANGE

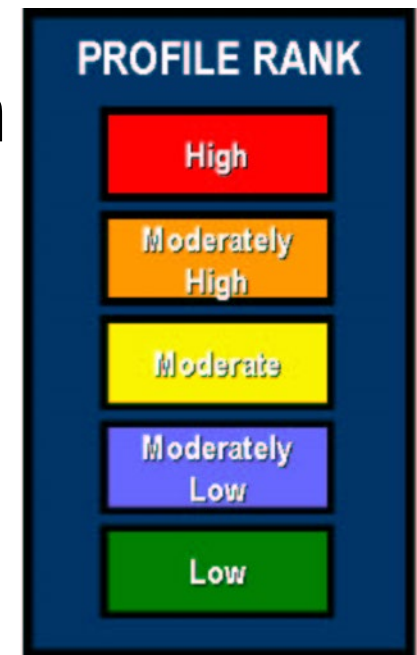
- Increased Temperatures
- Reduced Precipitation
- Sea Level Rise
- Reduced Tourism
- Reduced Water Supply
- Wildfire Risk
- Public Health (heat and air quality)



# RISK RANK METHODOLOGY

---

- The risk ranking is facilitated using an automated interactive spreadsheet program that asks specific questions on potential hazards and then assigns a relative value to each potential hazard accordingly.
- The result of the workshop will be a ranked list of hazards to be studied in detail in the Hazard Mitigation Plan.



|                          |                                               |                            |                                                                              |
|--------------------------|-----------------------------------------------|----------------------------|------------------------------------------------------------------------------|
| Type a question for help |                                               |                            |                                                                              |
| C3                       |                                               |                            |                                                                              |
|                          | A                                             | B                          | C                                                                            |
| 1                        | <b>HAZARD IDENTIFICATION AND RISK RANKING</b> |                            |                                                                              |
| 2                        | <b>Earthquake</b>                             | <b>Hazard Rank Factors</b> | <b>Hazard Factor Description</b>                                             |
| 3                        |                                               | Probability/Frequency      |                                                                              |
| 4                        |                                               | Consequence/Severity       |                                                                              |
| 5                        |                                               | Vulnerability              | Probability/Frequency                                                        |
| 6                        |                                               | Risk Rank                  | Infeasible event - not applicable due to geographic location characteristics |
| 7                        |                                               | Comments                   | Rare event - occurs less than once every 50 years                            |
| 8                        |                                               |                            |                                                                              |
| 9                        | <b>Wildfire</b>                               | <b>Hazard Rank Factors</b> | <b>Hazard Factor Description</b>                                             |
| 10                       |                                               | Probability                |                                                                              |
| 11                       |                                               | Vulnerability              |                                                                              |
| 12                       |                                               | Consequence                |                                                                              |
| 13                       |                                               | Risk Rank                  | Not a Hazard                                                                 |
| 14                       |                                               | Comments                   |                                                                              |
| 15                       |                                               |                            |                                                                              |
| 16                       | <b>Flood</b>                                  | <b>Hazard Rank Factors</b> | <b>Hazard Factor Description</b>                                             |
| 17                       |                                               | Probability                |                                                                              |
| 18                       |                                               | Vulnerability              |                                                                              |
| 19                       |                                               | Consequence                |                                                                              |
| 20                       |                                               | Risk Rank                  | Not a Hazard                                                                 |
|                          |                                               | Comments                   |                                                                              |

# RISK RANKING – PROBABILITY/FREQUENCY

---

- **Recurrence Interval** – Prediction of how often a hazard will occur in the future, including projected return intervals

| Probability/Frequency Rank Descriptors                                                   | Rank |
|------------------------------------------------------------------------------------------|------|
| Infeasible event - not applicable due to geographic location characteristics             | 0    |
| Rare event - occurs less than once every 50 years                                        | 1    |
| Infrequent event - occurs between once every 8 years and once every 50 years (inclusive) | 2    |
| Regular event - occurs between once a year and once every 7 years                        | 3    |
| Frequent event - occurs more than once a year                                            | 4    |

# RISK RANKING – CONSEQUENCE/SEVERITY

---

**Physical Damage** – Structures and lifelines

**Economic Impact** – Loss of power, water, sanitation, roads, etc....

| Probability/Frequency Rank Descriptors                                                                             | Rank |
|--------------------------------------------------------------------------------------------------------------------|------|
| No damage                                                                                                          | 1    |
| Minor/slight damage to buildings and structures, no loss of lifelines, first aid injury and no disability          | 2    |
| Moderate building damage, minor loss of lifelines (less than 12 hours), lost time injury but no disability         | 3    |
| Moderate building damage, lifeline loss (less than 24 hours), severe injury or disability                          | 4    |
| Extensive building damage, widespread loss of lifelines (water, gas, electricity, sanitation, roads), loss of life | 5    |

# RISK RANKING - VULNERABILITY

---

- **Impact Area** – Area impacted by a hazard event  
**Secondary Impacts** – Capability of triggering additional hazards  
**Onset** - Period between initial recognition of an approaching hazard and when the hazard begins to impact the community

| Vulnerability Rank Descriptors                                          | Rank |
|-------------------------------------------------------------------------|------|
| No physical damage, no secondary impacts                                | 1    |
| Localized damage area                                                   | 2    |
| Localized damage area, minor secondary impacts, delayed hazard onset    | 3    |
| Moderate damage area, moderate secondary impacts, moderate warning time | 4    |
| Widespread damage area, significant secondary impacts, no warning time  | 5    |



# RISK RANKING - MATRIX

| Probability/Frequency Description                                                             | Risk Ranking Matrix   |   |                      |    |    |    |     |  |  |  |
|-----------------------------------------------------------------------------------------------|-----------------------|---|----------------------|----|----|----|-----|--|--|--|
| Rare Event:<br>Occurs less than once every 50 years                                           | Probability/Frequency |   | Consequence/Severity |    |    |    |     |  |  |  |
|                                                                                               | Value                 | 1 | 1                    | 2  | 3  | 4  | 5   |  |  |  |
|                                                                                               | Vulnerability         | 1 | 1                    | 2  | 3  | 4  | 5   |  |  |  |
|                                                                                               |                       | 2 | 2                    | 4  | 6  | 8  | 10  |  |  |  |
|                                                                                               |                       | 3 | 3                    | 6  | 9  | 12 | 15  |  |  |  |
|                                                                                               |                       | 4 | 4                    | 8  | 12 | 16 | 20  |  |  |  |
|                                                                                               |                       | 5 | 5                    | 10 | 15 | 20 | 25  |  |  |  |
| Infrequent Event:<br>Occurs between once every 8 years and<br>once every 50 years (inclusive) | Probability/Frequency |   | Consequence/Severity |    |    |    |     |  |  |  |
|                                                                                               | Value                 | 2 | 1                    | 2  | 3  | 4  | 5   |  |  |  |
|                                                                                               | Vulnerability         | 1 | 2                    | 4  | 6  | 8  | 10  |  |  |  |
|                                                                                               |                       | 2 | 4                    | 8  | 12 | 16 | 20  |  |  |  |
|                                                                                               |                       | 3 | 6                    | 12 | 18 | 24 | 30  |  |  |  |
|                                                                                               |                       | 4 | 8                    | 16 | 24 | 32 | 40  |  |  |  |
|                                                                                               |                       | 5 | 10                   | 20 | 30 | 40 | 50  |  |  |  |
| Regular Event:<br>Occurs between once a year and once<br>every 7 years                        | Probability/Frequency |   | Consequence/Severity |    |    |    |     |  |  |  |
|                                                                                               | Value                 | 3 | 1                    | 2  | 3  | 4  | 5   |  |  |  |
|                                                                                               | Vulnerability         | 1 | 3                    | 6  | 9  | 12 | 15  |  |  |  |
|                                                                                               |                       | 2 | 6                    | 12 | 18 | 24 | 30  |  |  |  |
|                                                                                               |                       | 3 | 9                    | 18 | 27 | 36 | 45  |  |  |  |
|                                                                                               |                       | 4 | 12                   | 24 | 36 | 48 | 60  |  |  |  |
|                                                                                               |                       | 5 | 15                   | 30 | 45 | 60 | 75  |  |  |  |
| Frequent Event:<br>Occurs more than once a year                                               | Probability/Frequency |   | Consequence/Severity |    |    |    |     |  |  |  |
|                                                                                               | Value                 | 4 | 1                    | 2  | 3  | 4  | 5   |  |  |  |
|                                                                                               | Vulnerability         | 1 | 4                    | 8  | 12 | 16 | 20  |  |  |  |
|                                                                                               |                       | 2 | 8                    | 16 | 24 | 32 | 40  |  |  |  |
|                                                                                               |                       | 3 | 12                   | 24 | 36 | 48 | 60  |  |  |  |
|                                                                                               |                       | 4 | 16                   | 32 | 48 | 64 | 80  |  |  |  |
|                                                                                               |                       | 5 | 20                   | 40 | 60 | 80 | 100 |  |  |  |

# RISK RANK CATEGORIZATION

---

## Risk Rank Equation

$\text{Risk} = \text{Probability} \times \text{Consequence} \times \text{Vulnerability}$

| Risk Rank Categorization |           |
|--------------------------|-----------|
| High Hazard              | 50 to 100 |
| Moderately High Hazard   | 25 to 49  |
| Moderate Hazard          | 15 to 24  |
| Moderately Low Hazard    | 5 to 14   |
| Low Hazard               | 1 to 4    |

# QUESTIONS?

---

Shireen Kulkarni  
Ryan Bray

[Shireen.Kulkarni@RMPCorp.com](mailto:Shireen.Kulkarni@RMPCorp.com)

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**City of Lomita**  
**HAZARD MITIGATION PLAN-**  
**Steering Committee Meeting #2**

April 15th, 2024

| Name               | Company                       | Position                        | Email Address                 | Phone #                                      |
|--------------------|-------------------------------|---------------------------------|-------------------------------|----------------------------------------------|
| John Campos        | City of Lomita                | Parking Enforcement Supervisor  | j.campos@lomitacity.com       | 310-325-7110<br>ext. 217                     |
| Brandy Villanueva  | Area G DMAE                   | Disaster Management Coordinator | bvillanueva@area-g-laco.org   | 310-625-7995                                 |
| Sanprier Adamzadeh | City of Lomita                | Management Assistant            | j.adamzadeh@lomitacity.com    | (424) 263-7569                               |
| Lina Hernandez     | City of Lomita                | Sr. Mgmt Analyst                | lina.hernandez@lomitacity.com | <del>310-325-7110</del><br>310-325-7110 x151 |
| Erika Barbero      | City of Lomita                | Asst. Planner                   | e.barbero@lomitacity.com      | (310) 325-7110 x103                          |
| Carla Dillon       | City of Lomita                | Dir of Public Works             | c.dillon@lomitacity.com       | (310) 304-4949                               |
| Shireen Kulkarni   | Risk Management Professionals | Technical Consultant            | shireen.kulkarni@rmppcorp.com | (949) 385-6004                               |
| Ryan Bray          | Risk Management Professionals | Senior Technical Consultant     | Ryan.Bray@rmppcorp.com        | 949.282.023                                  |



# **CITY OF LOMITA**

## **HAZARD MITIGATION PLAN UPDATE**

### **HMPC MEETING #2**

---

**Shireen Kulkarni and Ryan Bray**

Risk Management Professionals, Inc.  
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# MEETING AGENDA

---

- **Complete Hazard Ranking**
- **Review Previous HMP Mitigation Goals and Objectives**
- **Engage in discussions to review and develop Goals and Objectives specific to the needs of the City**
- **Align Goals and Objectives with State and County Goals**

# RISK ASSESSMENT – HAZARDS FROM THE PREVIOUS PLAN

---

Earthquake

Localized Flooding

Windstorm

Drought



# FEMA'S NATIONAL RISK INDEX- IDENTIFIED HAZARDS

---

- Drought: **Relatively Low**
- Earthquake: **Very High**
- Heat Wave: **Relatively High**
- Landslide: **Relatively High**
- Lightning: **Relatively High**
- Riverine Flooding: **Relatively Moderate**
- Strong Wind: **Relatively Moderate**
- Tornado: **Relatively High**
- Tsunami: **Relatively Moderate**
- Wildfire: **Very High**

# HAZARD IDENTIFICATION AND RISK RANKING

File Edit View Insert Format Tools Data FlashPaper Window Help PDF Create! Type a question for help

C3

|    | A                                             | B                          | C                                                                                                                  | D           |
|----|-----------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------|-------------|
| 1  | <b>HAZARD IDENTIFICATION AND RISK RANKING</b> |                            |                                                                                                                    |             |
| 2  | <b>Earthquake</b>                             | <b>Hazard Rank Factors</b> | <b>Hazard Factor Description</b>                                                                                   | <b>Rank</b> |
| 3  |                                               | Probability/Frequency      |                                                                                                                    | 0           |
| 4  |                                               | Consequence/Severity       |                                                                                                                    | 0           |
| 5  |                                               | Vulnerability              | Probability/Frequency                                                                                              | 0           |
| 6  |                                               | Risk Rank                  | Infrequent event - occurs between once every 8 years and once every 50 years (inclusive)                           | 0           |
| 7  |                                               | Comments                   | Regular event - occurs between once a year and once every 7 years<br>Frequent event - occurs more than once a year |             |
| 8  |                                               |                            |                                                                                                                    |             |
| 9  | <b>Wildfire</b>                               | <b>Hazard Rank Factors</b> | <b>Hazard Factor Description</b>                                                                                   | <b>Rank</b> |
| 10 |                                               | Probability                |                                                                                                                    | 0           |
| 11 |                                               | Vulnerability              |                                                                                                                    | 0           |
| 12 |                                               | Consequence                |                                                                                                                    | 0           |
| 13 |                                               | Risk Rank                  | Not a Hazard                                                                                                       | 0           |
| 14 |                                               | Comments                   |                                                                                                                    |             |
| 15 |                                               |                            |                                                                                                                    |             |
| 16 | <b>Flood</b>                                  | <b>Hazard Rank Factors</b> | <b>Hazard Factor Description</b>                                                                                   | <b>Rank</b> |
| 17 |                                               | Probability                |                                                                                                                    | 0           |
| 18 |                                               | Vulnerability              |                                                                                                                    | 0           |
| 19 |                                               | Consequence                |                                                                                                                    | 0           |
| 20 |                                               | Risk Rank                  | Not a Hazard                                                                                                       | 0           |
|    |                                               | Comments                   |                                                                                                                    |             |

Risk Ranking Matrix Risk Ranking Worksheet/

Ready

# RISK RANK CATEGORIZATION

---

## Risk Rank Equation

$\text{Risk} = \text{Probability} \times \text{Consequence} \times \text{Vulnerability}$

| Risk Rank Categorization |           |
|--------------------------|-----------|
| High Hazard              | 50 to 100 |
| Moderately High Hazard   | 25 to 49  |
| Moderate Hazard          | 15 to 24  |
| Moderately Low Hazard    | 5 to 14   |
| Low Hazard               | 1 to 4    |



## MITIGATION GOALS AND OBJECTIVES

---

# PREVIOUS PLAN GOALS (2018)

---

1. Protect Life and Property
2. Enhance Public Awareness
3. Preserve Natural Systems
4. Encourage Partnerships and Implementation
5. Strengthen Emergency Services



**NEXT STEPS...**

---

# MITIGATION ACTIONS

## Develop Mitigation Actions

- Summarize mitigation project specifications
- Identify project goal categories
- Capital Improvements

## Action Categories

- Prevention
- Property Protection
- Public Awareness
- Natural Resource Protection
- Emergency Services
- Structural Projects



# QUESTIONS?

---

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**City of Lomita**  
**HAZARD MITIGATION PLAN-**  
**Steering Committee Meeting #3**

June 3rd, 2024

| Name                | Company                       | Position                 | Email Address                 | Phone #              |
|---------------------|-------------------------------|--------------------------|-------------------------------|----------------------|
| Irene Kurata        |                               | resident                 | i_kurata@yahoo.com            | 424-250-3625         |
| Montserrat Gastelum | city of lomita                | Admin Analyst            |                               | 424-219-1306         |
| Lina Hernandez      | City of Lomita                | Sr. Admin Analyst        | lina.hernandez@lomitacity.com | 310-325-7110<br>x151 |
| Sanjiv Adamzadeh    | City of Lomita                | Mgmt. Assistant          | S.adamzadeh@lomitacity.com    | 424-263-7569         |
| Erika Barbero       | " "                           | Asst Planner             | e.barbero@lomitacity.com      | x103                 |
| Ryan Bray           | RMP                           | Sr. Technical Consultant | Ryan.Bray@RMPCorp.com         | 949.282.0123<br>x238 |
| Shireen Kulkarni    | Risk management professionals | Technical consultant.    | shireen.kulkarni@rmppcorp.com | 949-282-0123<br>x242 |
|                     |                               |                          |                               |                      |



## **CITY OF LOMITA**

# **HAZARD MITIGATION PLAN UPDATE HAZARD MITIGATION PLANNING COMMITTEE MEETING #3**

---

**Shireen Kulkarni  
Ryan Bray**

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---

# MEETING AGENDA

- Review Hazard Ranking
- Review Previous HMP Mitigation Goals and Objectives
- Engage in discussions to review and develop Goals and Objectives specific to the needs of the City
- Align Goals and Objectives with State and County Goals
- Discuss Vulnerable Populations at Risk from Identified Hazard Events



## HAZARD RANKING REVIEW

---

# HAZARD RANKING SUMMARY

| Rank                        | Score |
|-----------------------------|-------|
| High                        |       |
| Moderately High             |       |
| Earthquake                  | 40    |
| Windstorm                   | 36    |
| Water Shortage              | 36    |
| Moderate                    |       |
| Urban Fire                  | 24    |
| Flood                       | 24    |
| Hazardous Materials Release | 20    |
| Extreme Heat                | 16    |
| Aircraft Incident           | 16    |
| Moderately Low              | 14.1  |
| Low                         |       |



## MITIGATION GOALS AND OBJECTIVES

---



# PREVIOUS PLAN GOALS (2018)

---

- Protect Life and Property
- Enhance Public Awareness
- Preserve Natural Systems
- Encourage Partnerships and Implementation
- Strengthen Emergency Services

# QUESTIONS?

---

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**City of Lomita**  
**HAZARD MITIGATION PLAN-**  
**Steering Committee Meeting #4**

July 10th, 2024

| Name              | Company                                            | Position                    | Email Address                 | Phone #           |
|-------------------|----------------------------------------------------|-----------------------------|-------------------------------|-------------------|
| Brandy Villanueva | Area G DMAE                                        | Area G DMA                  | willanueva@areag-laco.org     | 310-625-7995      |
| Lina Hernandez    | Sr. Mgmt Analyst/<br>Interim Public Works Dir.     | City of Lomita              | lina.hernandez@lomitacity.com | 310-325-7110 x151 |
| Sanpser Adamzadeh | Management Assistant                               | City of Lomita              | s-adamzadeh@lomitacity.com    | 424-263-7569      |
| Shireen Kulkarni  | <del>Technical</del> Risk Management Professionals | Technical Consultant        | shireen.kulkarni@rmppcorp.com | 949-385-6004      |
| Ryan Bray         | Risk Management Professionals                      | Senior technical Consultant | Ryan.Bray@RMPPcorp.com        | 949.282.0123      |
|                   |                                                    |                             |                               |                   |
|                   |                                                    |                             |                               |                   |
|                   |                                                    |                             |                               |                   |



# **CITY OF LOMITA**

## **HAZARD MITIGATION PLAN UPDATE**

### **COMMITTEE MEETING #4**

---

**Shireen Kulkarni**  
**Ryan Bray**

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# MEETING AGENDA

- Develop Asset Inventory List
- Validate Vulnerability Assessment with Loss Estimate Calculations
- Discuss Survey Responses
- Discuss Sensitive Populations at Risk from Identified Hazard Events



# **ASSET INVENTORY & LOSS ESTIMATES**

---





# ASSET INVENTORY

- Asset Inventory
  - Types and number of existing and future buildings
  - Infrastructure
  - Critical facilities

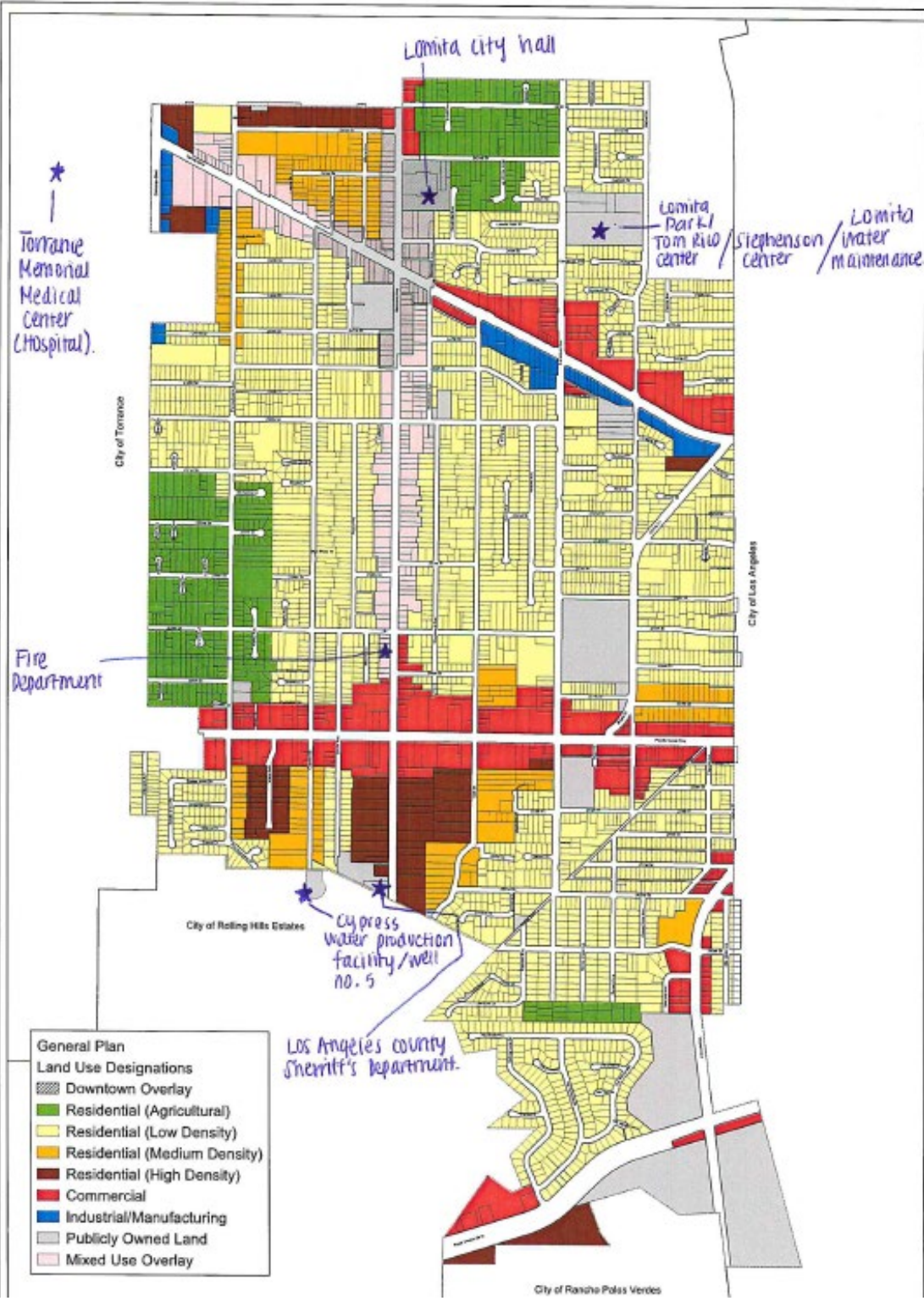
| Asset Inventory Summary – City of Lomita |                                                        |                          |                |
|------------------------------------------|--------------------------------------------------------|--------------------------|----------------|
| Type                                     | Name                                                   | Address                  | Square Footage |
| Public Facility                          | CITY HALL & COUNCIL CHAMBERS                           | 24300 NARBONNE AVENUE    |                |
| Public Facility                          | HOSPITAL-TORRANCE MEMORIAL MEDICAL CENTER              | 3330 LOMITA BOULEVARD    |                |
| Police                                   | LOS ANGELES COUNTY SHERIFF DEPARTMENT- LOMITA STATION  | 26123 NARBONNE AVENUE    |                |
| Fire                                     | LOS ANGELES COUNTY FIRE DEPARTMENT- FIRE STATION NO. 6 |                          |                |
| Parks                                    | LOMITA PARK- TOM RICO CETNER                           | 24428 ESHELMAN AVENUE    |                |
| Parks                                    | LOMITA PARK- STEPHENSON CENTER                         | 24428 ESHELMAN AVENUE    |                |
| Water Facility                           | CYPRESS WATER PRODUCTION FACILITY                      | 26112 CYPRESS STREET     |                |
| Water Facility                           | HARBOR HILLS ELEVATED RESERVOIR                        | PALOS VERDES DRIVE NORTH |                |
| Water Facility                           | WELL NO. 5                                             | 26112 CYPRESS STREET     |                |
| Water Facility                           | WATER MAINTENANCE                                      | 24373 WALNUT AVENUE      |                |
| Water Facility                           | WATER PUMP STATION                                     | 26255 ASPIAN WAY         |                |



# VULNERABILITY ASSESSMENT ESTIMATES

Review each asset and assign potential percentage of damage expected due to each identified hazard

| City of Lomita<br>Vulnerability Assessment Calculations |                                                        |                       |             | Earthquake |               | Windstorm |               | Water Shortage |               | Urban Fire |               |
|---------------------------------------------------------|--------------------------------------------------------|-----------------------|-------------|------------|---------------|-----------|---------------|----------------|---------------|------------|---------------|
| Type                                                    | Name                                                   | TOTAL                 |             | % Damage   | Loss Estimate | %         | Loss Estimate | %              | Loss Estimate | % Damage   | Loss Estimate |
| Public Facility                                         | CITY HALL & COUNCIL CHAMBERS                           | 24300 NARBONNE AVENUE | \$8,333,000 |            | \$0           | 2%        | \$166,660     | 0%             | \$0           | 35%        | \$2,916,550   |
| Public Facility                                         | HOSPITAL-TORRANCE MEMORIAL MEDICAL CENTER              | 3330 LOMITA BOULEVARD | \$0         |            | \$0           | 3%        | \$0           | 0%             | \$0           |            | \$0           |
| Police                                                  | LOS ANGELES COUNTY SHERRIFF DEPARTMENT- LOMITA STATION | 26123 NARBONNE AVENUE | \$0         |            | \$0           | 3%        | \$0           | 0%             | \$0           |            | \$0           |
| Fire                                                    | LOS ANGELES COUNTY FIRE DEPARTMENT- FIRE STATION NO. 6 | 25517 NARBONNE AVENUE | \$0         |            | \$0           | 3%        | \$0           | 0%             | \$0           |            | \$0           |
| Parks                                                   | LOMITA PARK- TOM RICO CETNER                           | 24428 ESHELMAN AVENUE | \$4,295,000 |            | \$0           | 2%        | \$85,900      | 0%             | \$0           | 10%        | \$429,500     |
| Parks                                                   | LOMITA PARK- STEPHENSON CENTER                         | 24428 ESHELMAN AVENUE | \$1,203,000 |            | \$0           | 2%        | \$24,060      | 0%             | \$0           | 10%        | \$120,300     |
| Water Facility                                          | CYPRESS WATER PRODUCTION FACILITY                      | 26112 CYPRESS STREET  | \$5,286,000 |            | \$0           | 2%        | \$105,720     | 0%             | \$0           | 10%        | \$528,600     |
| Water Facility                                          | WELL NO. 5                                             | 26112 CYPRESS STREET  | \$1,937,000 |            | \$0           | 2%        | \$38,740      | 0%             | \$0           | 10%        | \$193,700     |
| Water Facility                                          | WATER MAINTENANCE                                      | 24373 WALNUT AVENUE   | \$1,606,000 |            | \$0           | 2%        | \$32,120      | 0%             | \$0           | 10%        | \$160,600     |
| Water Facility                                          | WATER PUMP STATION                                     | 26255 ASPIAN WAY      | \$1,065,000 |            | \$0           | 2%        | \$21,300      | 0%             | \$0           | 10%        | \$106,500     |

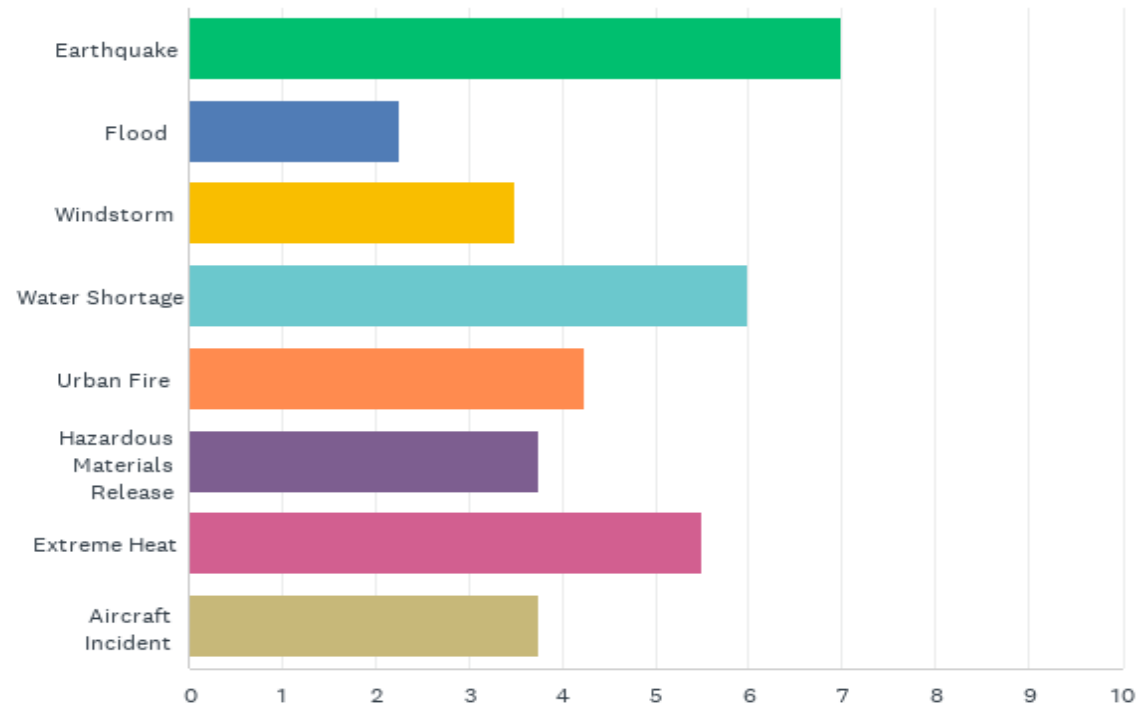




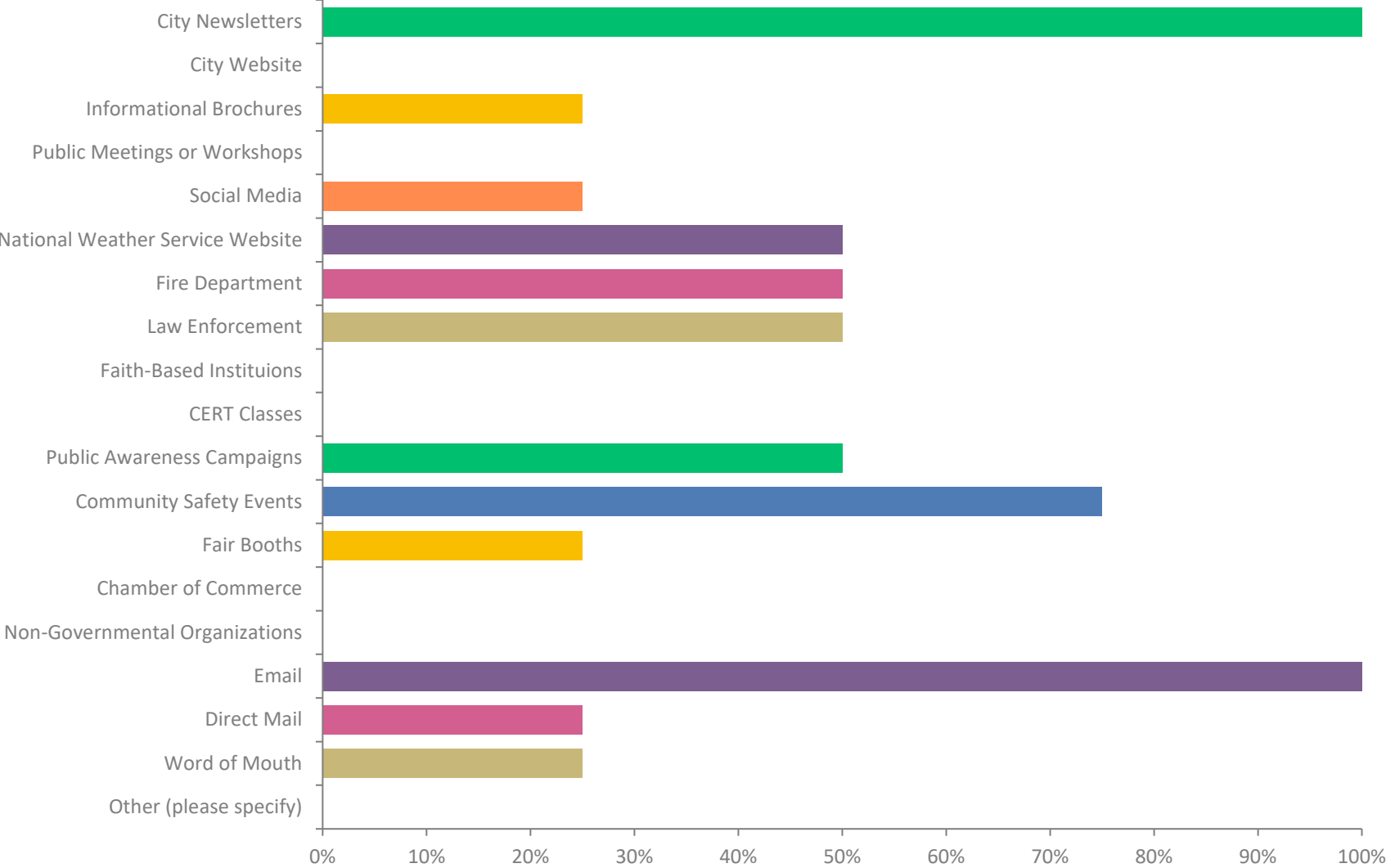
# SURVEY RESPONSES

---

## Rank the hazards based on the likelihood of potential threat to Lomita



**What are the best ways for you or members of your household to receive information about how to make your home and neighborhood more resistant to hazards? (Check all that apply)**





# COMMUNITY IMPACTS

---

# COMMUNITY IMPACTS

---

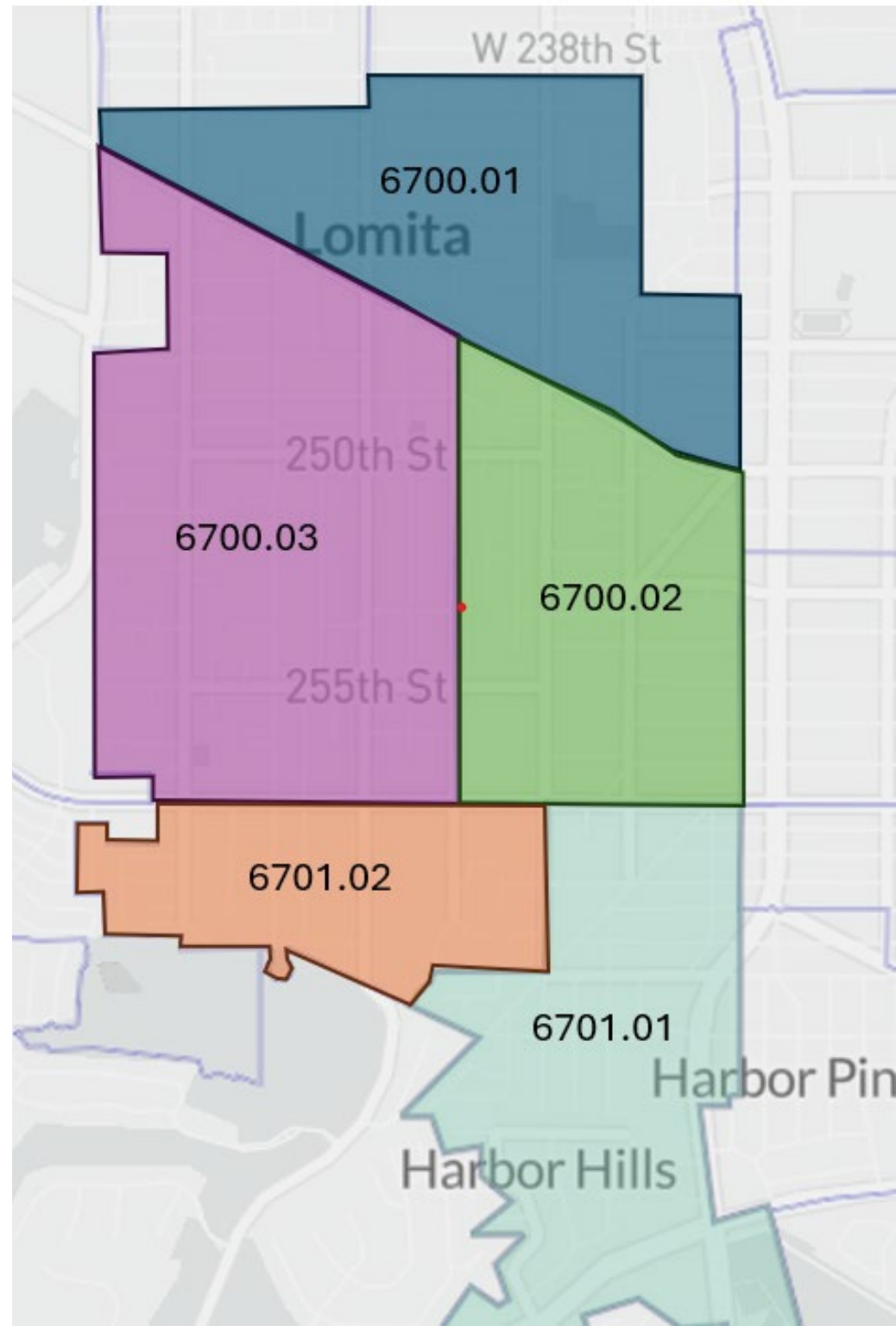
- Current FEMA guidance places high importance on the evaluation of people at risk to hazards
- Special attention must be provided to identified vulnerable groups.
- Vulnerable Populations for Lomita include:
  - Elderly (+65 years)
  - Youth (Under 17 but particularly under 10)
  - Economically Disadvantaged
  - English Language Proficiency



# LOMITA BY THE NUMBERS

## Census Information (2020)

- Population 19,782
- Under 5yrs 6.6%
- Over 65yrs 18.3
- Foreign Born 27.3%
- Poverty 12.1%



# LOMITA BY THE NUMBERS

---

|                        | 6700.01 | 6700.02 | 6700.03 | 6701.01 | 6701.02 |
|------------------------|---------|---------|---------|---------|---------|
| Population             | 3698    | 3581    | 5984    | 3240    | 4159    |
| Pop/ Mile <sup>2</sup> | 10198.5 | 10698.4 | 10359.3 | 7621.6  | 19602.8 |
| Median Age             | 44.4    | 40.3    | 41.9    | 38.4    | 37.2    |
| Under 10years          | 9%      | 11%     | 11%     | 13%     | 14%     |
| Over 60 years          | 30%     | 25%     | 26%     | 27%     | 19%     |
| Poverty -18            | 1%      | 8%      | 7%      | 65%     | 12%     |
| Poverty +65            | 7%      | 14%     | 7%      | 24%     | 12%     |
| Foreign Born           | 28.1%   | 33.3%   | 24.1%   | 20.7%   | 31.1%   |



# NEXT STEPS...

---

# MITIGATION ACTIONS

## Develop Mitigation Actions

- Summarize mitigation project specifications
- Identify project goal categories
- Capital Improvements

## Action Categories

- Prevention
- Property Protection
- Public Awareness
- Natural Resource Protection
- Emergency Services
- Structural Projects



**QUESTIONS?**

Ryan Bray  
Shireen Kulkarni

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**City of Lomita  
HAZARD MITIGATION PLAN-  
Steering Committee Meeting #5**

**August 8th, 2024**

| Name             | Company        | Position                                            | Email Address                     | Phone #               |
|------------------|----------------|-----------------------------------------------------|-----------------------------------|-----------------------|
| Montse Gastelum  | city of Lomita | admin<br>analyst                                    | m.gastelum@<br>lomitacity.com     | 424-219-1306          |
| JOHN BALLARD     | SBHIS          | INSURANCE BROKER                                    | JBALLARD@SBHIS.NET                | 310.713.9560          |
| Lina Hernandez   | City of Lomita | Interim Public Works<br>Director / Gr. Mgmt Analyst | lina.hernandez@<br>lomitacity.com | 310-325-7110 x151     |
| Emma Kelley      | City of Lomita | Rec & Parks<br>Director                             | e.kelley@lomitacity.<br>com       | 310-326-0140          |
| Irene Kurata     | resident       |                                                     | i.kurata@yahoo.<br>com            | 424-250-3625          |
| Shireen Kulkarni | RMP            | Technical<br>Consultant.                            | shireen.kulkarni@<br>RMPcorp.com  | 949-385-6004.         |
| Ryan Bray        | RMP            | Senior Technical<br>Consultant                      | Ryan.Bray@RMPCorp.<br>com         | 949-282-0123<br>x+238 |
|                  |                |                                                     |                                   |                       |



# **CITY OF LOMITA**

## **HAZARD MITIGATION PLAN UPDATE**

### **COMMITTEE MEETING #5**

---

**Ryan Bray**

**Shireen Kulkarni**

Risk Management Professionals, Inc.  
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# MEETING AGENDA

- Review Mitigation Goals and Objectives
- Develop Potential Mitigation Projects
- Plan for Benefit-Cost Review

# MITIGATION ACTION FRAMEWORK

---

# HAZARD RANKING SUMMARY

| Rank                        |  | Score |
|-----------------------------|--|-------|
| High                        |  |       |
| Moderately High             |  |       |
| Earthquake                  |  | 40    |
| Windstorm                   |  | 36    |
| Water Shortage              |  | 36    |
| Moderate                    |  |       |
| Urban Fire                  |  | 24    |
| Flood                       |  | 24    |
| Hazardous Materials Release |  | 20    |
| Extreme Heat                |  | 16    |
| Aircraft Incident           |  | 16    |
| Moderately Low              |  | 14.1  |
| Low                         |  |       |

# MITIGATION GOALS AND OBJECTIVES REVIEW

---

- Protect Life and Property
- Enhance Public Awareness
- Protect the Environment
- Encourage Strategic Partnerships and Implementation
- Improve Emergency Capabilities

# IDENTIFY POTENTIAL MITIGATION ACTIONS

---

# MITIGATION ACTION CATEGORIES

---

- Prevention
- Property Protection
- Public Education and Awareness
- Natural Resource Protection
- Emergency Services
- Structural Projects



# EARTHQUAKE EXAMPLE MITIGATION PROJECTS



- Building Retrofits
- Anchor Electrical Transformers
- Install Expansion Joints
- Reinforce Well Shaft or Install Submersible Pump
- Restrain Pipes
- Improve Pipe Materials
- Install Tank Anchors
- Install Friction Dampers on Elevated Tanks



# WINDSTORM EXAMPLE MITIGATION PROJECTS



- Implement Tree Trimming
- Retrofits
- Anchoring
- Traffic Light Upgrades

# WATER SHORTAGE EXAMPLE MITIGATION PROJECTS



- Water Use Ordinances
- Contingency Plans
- Emergency Water Distribution and Storage Systems
- Water Conservation Education
- System Retrofits
- Leak Detection Programs

# URBAN FIRE EXAMPLE MITIGATION PROJECTS



- Community Awareness
- Fire-safe Practices for Structures and Landscaping
- Enhancement of Fire-Suppression Capabilities
- Fire Risk Mapping

# FLOOD EXAMPLE MITIGATION PROJECTS



- Acquisition, Relocation, & Elevation Projects
- Dry-Floodproofing (e.g., plastic sheeting)
- Wet-Floodproofing (e.g., water resistant materials)
- Stormwater Management Ordinances or Amendments
- Floodplain Ordinances or Amendments
- Storm Drainage System Improvements
- Structural Flood Control Measures (e.g., levees, dams, floodwalls)  
Inundation Zone Mapping
- Preparedness and Response Plans
- Notification Systems
- Structural Storage Tank Reservoir Improvements



# HAZARDOUS MATERIALS RELEASE EXAMPLE MITIGATION PROJECTS



- Emergency Plans
- Transportation
- Disposal
- Emergency Response Teams
- Industrial Site Buffering
- Pipeline Location and Design
- Digging Hotlines
- Contingency Planning
- Improvements to Maps and Records

# EXTREME HEAT EXAMPLE MITIGATION PROJECTS



- Reduce Urban Heat Island Effect- Tree Plantings, Installation of Green Roofs, Cool Roofing Product Use
- Increase Awareness of Extreme Temperature Risk and Safety
- Requiring Minimum Temperatures in Housing/Landlord codes

# AIRCRAFT INCIDENT EXAMPLE MITIGATION PROJECTS



- Enhancement of Emergency Response Teams
- Airport/Freeway/Rail Site Buffering
- Contingency and Emergency Planning



# NEXT HMPC MEETING

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The Next Committee meeting will consist of a Benefit-Cost Review of the identified Mitigation Actions



**QUESTIONS?**

Ryan Bray  
Shireen Kulkarni

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John Ballard, Chair  
Irene Kurata, Vice-Chair  
John Carmody, Commissioner  
Mike Cozzolino, Commissioner  
Jessiqa Pace, Commissioner



Lomita City Hall  
Commission Conference Room  
24300 Narbonne Avenue  
Lomita, CA 90717  
Phone: (310) 325-7110  
Fax: (310) 325-4024

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**AGENDA  
REGULAR MEETING  
PUBLIC SAFETY AND TRAFFIC COMMISSION  
WEDNESDAY, NOVEMBER 20, 2024  
6:00 P.M.**

**1. OPENING CEREMONIES**

- a. Call Meeting to Order
- b. Flag Salute
- c. Roll Call

**2. ORAL COMMUNICATIONS**

Persons wishing to speak on items or subjects other than those scheduled are requested to do so at this time. Please state your name and address for the record. In order to conduct a timely meeting, a 3-minute time limit per person has been established. Government Code Section 54954.2 prohibits the Commission from discussing or taking action on a specific item unless it appears on a posted agenda.

**3. CONSENT AGENDA**

- a. **APPROVAL OF MINUTES** – September 18, 2024

**RECOMMENDED ACTION:** Approve the minutes.

**4. SCHEDULED MATTERS**

- a. **LOCAL HAZARD MITIGATION PLAN UPDATE** - informational only, no staff report

*Presented by Linda Hernandez, Deputy City Manager/Public Works Director*

**RECOMMENDED ACTION:** Receive and file the report.

- b. **SHERIFF DEPARTMENT UPDATES** - informational only, no staff report

- c. **STAFF UPDATES** - informational only, no staff report

**5. OTHER MATTERS**

**a. COMMISSIONER ITEMS**

**b. COMMISSIONERS TO ATTEND CITY COUNCIL MEETINGS**

Tuesday, December 3, 2024, and Tuesday, December 17, 2024

**6. ADJOURNMENT**

*Written materials distributed to the Public Safety & Traffic Commission within 72 hours of the meeting are available for public inspection immediately upon distribution in the City Clerk's office at 24300 Narbonne Avenue, Lomita, California 90717. In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, you should contact the office of the City Clerk at (310) 325-7110 (Voice) or the California Relay Service at 711. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to assure accessibility to this meeting.*

*I hereby certify under penalty of perjury under the laws of the State of California that the foregoing agenda was posted not less than 72 hours prior to the meeting at the following locations: Lomita City Hall, Lomita Park, and uploaded to the City of Lomita website at <https://lomitacity.com/agendas-minutes/>.*

Date Posted: November 15, 2024

A handwritten signature in blue ink, appearing to read 'L. Abbott', is written over a horizontal line.

Linda E. Abbott, CMC, Deputy City Clerk



City of Lomita  
Notice of Public Hearing

**NOTICE IS HEREBY GIVEN** that the Lomita City Council will hold a public hearing at 6:00 p.m. or shortly thereafter on Tuesday, September 16, 2025, in the Council Chambers at Lomita City Hall, 24300 Narbonne Avenue, Lomita, CA 90717, pursuant to Sec. 3-2.08 of the Lomita, California Municipal Code (LMC) to consider the Hazard Mitigation Plan (HMP), which helps identify risks in our community, such as flooding, wildfires, and earthquakes, and outlines actions to reduce the impact of these disasters.

As part of a required five-year update to this plan, the City of Lomita is holding a public hearing to invite residents and stakeholders to share any concerns about local hazards, suggest ways to reduce risks, or provide ideas for improving disaster preparedness. The City Council invites the public to participate in shaping a plan that protects the community, reduces the impact on people, property, and infrastructure, and ensures the City of Lomita can access federal funding for mitigation and response efforts.

For more information, please contact the City Manager's Department at (310) 325-7110, ext. 151.

Posting date: September 5, 2025