PLANNING COMMISSION MEETING
AGENDA

6:00 PM - Thursday, May 15, 2025

Community Meeting Chambers, Los Altos City Hall 1
North San Antonio Road, Los Altos, CA

PARTICIPATION: Members of the public may participate by being present at the Los Altos Community Meeting Chambers at Los Altos City Hall located at 1 N. San Antonio Rd, Los Altos, CA during the meeting. Public comment is accepted in person at the physical meeting location, or via email to **PCPublicComment@losaltosca.gov**.

REMOTE MEETING OBSERVATION: Members of the public may view the meeting via the link below, but will not be permitted to provide public comment via Zoom or telephone. Public comment will be taken in-person, and members of the public may provide written public comment by following the instructions below.

https://tinyurl.com/y56wejx7

Telephone: 1-253-215-8782 / Webinar ID: 972 3295 0016 / Passcode: 242017

SUBMIT WRITTEN COMMENTS: Verbal comments can be made in-person at the public hearing or submitted in writing prior to the meeting. Written comments can be mailed or delivered in person to the Development Services Department or emailed to **PCPublicComment@losaltosca.gov**.

Correspondence must be received by 2:00 p.m. on the day of the meeting to ensure distribution prior to the meeting. Comments provided after 2:00 p.m. will be distributed the following day and included with public comment in the Planning Commission packet.

AGENDA

ESTABLISH QUORUM

PUBLIC COMMENTS ON ITEMS NOT ON THE AGENDA

Members of the audience may bring to the Commission's attention any item that is not on the agenda. The Commission Chair will announce the time speakers will be granted before comments begin. Please be advised that, by law, the Planning Commission is unable to discuss or take action on issues presented during the Public Comment Period. According to State Law (also known as "The Brown Act") items must first be noted on the agenda before any discussion or action.

ITEMS FOR CONSIDERATION/ACTION

CONSENT CALENDAR

These items will be considered by one motion unless any member of the Commission or audience wishes to remove an item for discussion. Any item removed from the Consent Calendar for discussion will be handled at the discretion of the Chair.

1. **Planning Commission Meeting Minutes**
   Approval of the DRAFT minutes of the regular meeting of April 3, 2025.

PUBLIC HEARING

2. **General Plan Amendment: Safety Element and Natural Environment & Hazards Element**
Consideration of a General Plan Amendment to adopt a Safety Element and update the Natural Environment & Hazards Element to maintain the City of Los Altos's General Plan in compliance with State Law. The proposed amendment is exempt from environmental review pursuant to Sections 15060(c)(2) and 15061(b)(3) of the California Environmental Quality Act (CEQA) Guidelines. *Project Manager: Sean Gallegos*

COMMISSIONERS' REPORTS AND COMMENTS

POTENTIAL FUTURE AGENDA ITEMS

ADJOURNMENT

SPECIAL NOTICES TO PUBLIC

In compliance with the Americans with Disabilities Act and California Law, it is the policy of the City of Los Altos to offer its programs, services and meetings in a manner that is readily accessible to everyone, including individuals with disabilities. If you are a person with a disability and require information or materials in an appropriate alternative format; or if you require any other accommodation, please contact department staff. Advance notification within this guideline will enable the City to make reasonable arrangements to ensure accessibility.

Agendas, Staff Reports and some associated documents for the Planning Commission items may be viewed on the Internet at *http://losaltosca.gov/meetings*.

Decisions of the Planning Commission are final unless appealed by filing an appeal with the City Clerk within 14 calendar days of the decision. No building permits shall be issued during this 14-day period.

CITY OF LOS ALTOS
PLANNING COMMISSION MEETING MINUTES
THURSDAY, APRIL 3, 2025
6:00 p.m.
1 N. San Antonio Road, Los Altos, CA

Joe Beninato, Chair
Richard Roche, Vice Chair
Mehruss Jon Ahi, Commissioner
Kate Disney, Commissioner
Susan Mensinger, Commissioner
Eric Steinle, Commissioner

CALL MEETING TO ORDER: Joe Beninato, Chair, called the meeting to order at 6:00 p.m.

ESTABLISH QUORUM: All Planning Commissioners were present and in person during the meeting with the exception of Commissioner Disney who was absent.

PUBLIC COMMENTS ON ITEMS NOT ON THE AGENDA

None.

CONSENT CALENDAR

1. **Planning Commission Meeting Minutes**
   Approval of the DRAFT minutes of the Joint Planning Commission/Historical Commission meeting of February 6, 2025.

2. **Planning Commission Meeting Minutes**
   Approval of the DRAFT minutes of the Special Planning Commission meeting of February 27, 2025.

Motion by Commissioner Mensinger and Second by Commissioner Roche to approve the consent calendar. **Motion carried unanimously by roll call vote.**

PUBLIC HEARING

3. **Consider the draft ordinances and provide recommendation to the Los Altos City Council for the adoption of the proposed ordinances which include**:

   1. An Ordinance of the Los Altos City Council of the City of Los Altos Amending Chapter 14.50 of the Los Altos Municipal Code; and
   2. An Ordinance of the Los Altos City Council of the City of Los Altos Repealing in its Entirety the Sherwood Gateway Specific Plan of the Los Altos Municipal Code; and
   3. An Ordinance of the Los Altos City Council of the City of Los Altos Amending Chapter 14.88 of the Los Altos Municipal Code and Rezoning Certain Parcels Located along San Antonio Road and El Camino Real in the City of Los Altos to Commercial Thoroughfare (CT) Zoning District; and

   Find that the proposed zone change and amendments are exempt from environmental review pursuant to Section 15183 of the California Environmental Quality Act (CEQA) Guidelines since the zone change and amendments are consistent with the adopted General Plan.

Nick Zornes, Assistant City Manager, presented the project.

Commissioners asked staff questions.

Chair Beninato opened the public comment period.

Three residents provided comments.

Chair Beninato closed the public comment period.

The Planning Commission discussed the project.

Motion by Commissioner Steinle and Second by Commissioner Roche to adopt the proposed ordinances which include:1. An Ordinance of the Los Altos City Council of the City of Los Altos Amending Chapter 14.50 of the Los Altos Municipal Code; and 2. An Ordinance of the Los Altos City Council of the City of Los Altos Repealing in its Entirety the Sherwood Gateway Specific Plan of the Los Altos Municipal Code; and 3. An Ordinance of the Los Altos City Council of the City of Los Altos Amending Chapter 14.88 of the Los Altos Municipal Code and Rezoning Certain Parcels Located along San Antonio Road and El Camino Real in the City of Los Altos to Commercial Thoroughfare (CT) Zoning District; and Find that the proposed zone change and amendments are exempt from environmental review pursuant to Section 15183 of the California Environmental Quality Act (CEQA) Guidelines since the zone change and amendments are consistent with the adopted General Plan. **Motion carried unanimously by roll call vote.**

SPECIAL ITEM

4. **Special Presentation** - Presentation on State Housing Laws.

Nick Zornes, Assistant City Manager, and Stephanie Williams, Deputy Director of Development Services, presented.

Commissioners asked staff questions.

Chair Beninato opened the public comment period.

There were no public comments.

Chair Beninato closed the public comment period.

COMMISSIONERS' REPORTS AND COMMENTS – Chair Beninato shared comments.

POTENTIAL FUTURE AGENDA ITEMS – None.

ADJOURNMENT – The meeting adjourned at 7:48 p.m.

_____
Stephanie Williams
Development Services Deputy Director

The Planning Commission Meeting recording may be viewed via the following external website: https://www.youtube.com/@CityofLosAltosCA. The City of Los Altos does not own or operate YouTube. The video referenced on these minutes were live at the time the minutes were published.

PLANNING COMMISSION
AGENDA REPORT

Meeting Date: May 15, 2025

Subject: General Plan Amendment for New Safety Element and Revised Natural Environment & Hazards Element

Prepared by: Sean Gallegos, Senior Planner

Initiated by: City of Los Altos

Attachments:
1. Draft Resolution
2. Draft Safety Element
3. Draft Revised Natural Environment & Hazards Element

Recommendation

Recommend the City Council adopt a Resolution approving a General Plan Amendment for a new Safety Element and revised Natural Environment & Hazards Element; and find the project is exempt from environmental review pursuant to Sections 15060(c)(2) and 15061(b)(3) of the California Environmental Quality Act (CEQA) Guidelines, per the recommended findings in the attached Resolution - Attachment 1 to the report.

Background

The City's Natural Environment and Hazards Element, originally adopted as part of the 2002 General Plan, historically functioned as a combined element covering safety, noise, and air quality. At that time, Los Altos did not maintain a standalone Safety Element. Instead, the required safety topics such as seismic hazards, flooding, wildfire risk, and emergency preparedness were included within the broader Natural Environment and Hazards Element, along with policies addressing noise and air quality.

As part of this General Plan Amendment, the City proposes two (2) necessary actions:

1. Adoption of a new, standalone Safety Element to replace the safety-related content previously located in the Natural Environment & Hazards Element.

2. Adoption of a revised Natural Environment & Hazards Element, which will retain only the existing noise and air quality sections. The text, policies, implementation actions, and overall

format of the remaining Natural Environment & Hazards Element are unchanged, except for the removal of safety-related content now covered in the new Safety Element.

These actions ensure that all required General Plan topics are addressed in full compliance with State law, while also improving clarity and usability by providing a dedicated element for public safety. The Safety Element reflects current State mandates under Government Code §65302(g), including the integration of climate adaptation strategies (SB 379), evacuation route planning (AB 747 and SB 99), and hazard mitigation coordination (AB 2140). It incorporates findings from the Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) and aligns with the City's Climate Action and Adaptation Plan (CAAP) to support a coordinated, forward-looking framework for hazard resilience and emergency preparedness.

State Law Requirements

State Government Code §65302(g) requires every city and county in California adopt a Safety Element as part of its General Plan. The Safety Element includes goals, policies, and actions aimed at protecting the community from unreasonable risks associated with natural and human-made hazards, including (but not limited to) earthquakes, landslides, flooding, wildfires, and climate change. Over the past decade, new laws have expanded these requirements to address emerging threats and improve resiliency.

The last update to the Los Altos Safety Element occurred in 2002, and since that time, significant legislative mandates have occurred, including:

- SB 379 (2015): Requires cities to address climate adaptation and resiliency in the Safety Element by including a climate change vulnerability assessment and related policies (or by incorporating a Local Hazard Mitigation Plan that addresses climate risks).

- SB 1035 (2018): Requires safety elements to be reviewed and updated with each Housing Element revision to ensure new information on fire, flood, and climate hazards is integrated.

- AB 747 (2019): Requires an analysis of evacuation routes in the Safety Element, evaluating their capacity, safety, and viability under a range of emergency scenarios.

- SB 99 (2019): Requires identification of any residential developments in hazard areas that have only one emergency evacuation route (for wildfire or flood) and policies to address evacuation constraints.

- AB 2140 (2006): Allows and encourages the City to adopt its Local Hazard Mitigation Plan (LHMP) into the Safety Element by reference, which can improve eligibility for post-disaster funding. Per Government Code §65302(g)(4), integrating the LHMP satisfies many hazard identification and climate adaptation requirements.

Housing Element Coordination

The City's Housing Element was adopted in January 2023. Per State law (SB 1035) and guidance from the Governor's Office of Land Use and Climate Innovation (LCI), the Safety Element should be updated concurrently or shortly after the Housing Element to reflect current data and policies on safety as they relate to housing within the community. This amendment ensures compliance with State law as it relates to the timing of the required update in relation to the recently adopted Housing Element. The new Safety Element will be integrated into the future comprehensive General Plan update along with the Housing Element.

Process

The City initiated the Safety Element in 2024 to comply with the above mandates and to enhance safety planning. Key steps completed to date:

- Engaged a planning consultant and convened an inter-departmental team (including Development Services Department, Public Works Department, Los Altos Police Department, and the Santa Clara County Fire Department) to develop the draft element.

- Provided community engagement through citywide public workshops, surveys, dedicated website, and public review process for the draft documents. The City of Los Altos prioritized inclusive engagement to ensure the updated policies and actions reflected the needs and concerns of residents, stakeholders, and partner agencies.

- Reviewed existing conditions and hazards using the best available science and mapping (e.g. seismic zones, FEMA flood maps, wildfire risk areas, climate projections).

- Incorporated findings from recent plans: the Climate Action & Adaptation Plan (2022) and the Emergency Operations Plan (2021), which provide relevant strategies for climate resilience and emergency response.

- Coordinated with Santa Clara County and participated in the regional update to the Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP). On August 27, 2024, the City Council adopted Resolution No. 2024-68, formally accepting Volume I and the City of Los Altos Annex within Volume II of the 2023 MJHMP. The MJHMP's data, vulnerability assessments, and strategies have been incorporated by reference into the Safety Element in accordance with the requirements of Assembly Bill 2140 (AB 2140).

Analysis

The proposed General Plan Amendment updates the City's General Plan in accordance with State law. It creates a new standalone Safety Element with updated policies addressing hazard mitigation, climate adaptation, and emergency preparedness. It also revises the Natural Environment and Hazards Element to reflect the relocation of safety-related content. Together, these actions improve organizational clarity, ensure compliance with State law, and support the City's long-term resilience and environmental planning efforts.

Overall, the proposed Amendment ensures internal consistency within the General Plan, reinforces established City policy priorities, and provides a clear, comprehensive basis for guiding future decision-making related to hazard mitigation, resilience, and community safety.

Safety Element

The Safety Element is a component of a City's General Plan that identifies and addresses potential risks and hazards that could affect the community. Its purpose is to incorporate safety considerations into planning and decision-making to protect residents, businesses, and visitors from natural and human-caused hazards. It provides policy direction but does not directly initiate, fund, or implement development projects or environmental changes. Instead, it outlines strategies to reduce risks from natural and human-caused hazards and guides updates to key City plans, regulations, and processes.

The Draft Safety Element (Attachment 2) has been organized to meet applicable State law requirements and to provide a clear, actionable framework for enhancing public safety and hazard mitigation in Los Altos. The document is structured into three (3) primary sections: (1) an Introduction, which outlines the purpose of the Safety Element, applicable legal mandates, and its relationship to other City planning efforts; (2) a Hazard Identification and Risk Assessment, which evaluates natural and human-caused hazards that could affect the community, including seismic risks, flooding, wildfire, climate change, and hazardous materials; and (3) Goals, Policies, and Implementation Programs, which establish the City's strategic approach to risk reduction, climate adaptation, evacuation planning, and regional hazard mitigation coordination.

The Safety Element is structured around seven (7) core goals, each corresponding to a hazard identified in the Hazard Assessment and aligned with applicable State and regional requirements. Each goal is supported by policies and implementation actions that provide a clear framework for enhancing public safety and community resilience. Policies are labeled numerically (e.g., SE-4.1), and implementation actions alphabetically (e.g., SE-1.a, SE-1.b), allowing City staff, decision-makers, and regional partners to easily reference and apply them.

The Draft Safety Element (Attachment 2) fulfills all requirements under California Government Code Section 65302(g), along with recent mandates designed to strengthen local preparedness and climate resilience. It includes a comprehensive climate vulnerability assessment in compliance with SB 379, evaluates evacuation routes and single-access areas per AB 747 and SB 99, and formalizes integration of the MJHMP in accordance with AB 2140. Additionally, it includes a commitment to regular review and revision per SB 1035 to ensure consistency with other planning efforts.

The following is a summary of the key components and how they address state mandates and local needs:

- Hazard Identification & Risk Assessment: The Safety Element provides a comprehensive evaluation of natural and human-caused hazards affecting Los Altos, as required by Government Code §65302(g). It addresses risks including earthquakes, liquefaction, landslides, wildfire, flooding, hazardous materials, and climate-related impacts such as

extreme heat, drought, and sea-level rise. The assessment incorporates current data sources and integrates the 2023–2028 MJHMP, formally adopted by the City on August 27, 2024. In accordance with AB 2140, the MJHMP's vulnerability assessment and mitigation strategies are adopted by reference, ensuring regional consistency and eligibility for future hazard mitigation funding

- Evacuation Routes and Emergency Response: In compliance with SB 99 and AB 747, the Safety Element evaluates the City's evacuation network, focusing on areas with constrained access or single ingress/egress. It identifies neighborhoods with limited evacuation options and emphasizes coordination with neighboring jurisdictions and Santa Clara County to improve route capacity and safety. Policies and actions support enhanced evacuation planning through interagency collaboration, public outreach, and integration of evacuation considerations into development review, as well as maintenance of the Emergency Operations Plan (EOP), mutual aid agreements, and emergency communication systems like AlertSCC and Genasys Protect.

- Climate Adaptation and Resilience: The Safety Element incorporates climate change adaptation throughout, as required by SB 379, supported by a Climate Change Vulnerability Assessment identifying local impacts such as extreme heat, drought, and wildfire. It aligns with the City's CAAP and includes strategies such as heat emergency response protocols, identification of cooling centers, and regional coordination to enhance infrastructure resilience, particularly in areas vulnerable to sea-level rise.

- Wildfire Risk and Evacuation Planning: Although Los Altos is not subject to SB 1241 due to its location outside Cal Fire–designated Very High Fire Hazard Severity Zones, the Safety Element addresses wildfire risk consistent with the intent of the law. It includes policies for fire-safe development, defensible space, fire-resistant construction, vegetation management, and emergency access, as well as coordination with the Santa Clara County Fire Department and mapping for areas with limited evacuation access. Additionally, should changes to made in State law in the coming year due to the recent Wildfires in Los Angeles, those will be integrated during the Comprehensive General Plan Update which will begin in Fall 2025.

Natural Environment & Hazards Element

The proposed revisions to the Natural Environment and Hazards Element (Attachment 3) remove the safety-related content while retaining the existing noise and air quality sections with no substantive changes and remains consistent with the overall General Plan. The revisions preserve the City's environmental quality goals and ensure internal consistency across all elements of the General Plan.

The Natural Environment and Hazards Element continue to address key environmental quality topics, specifically noise and air quality. The noise section fulfills the City's statutory obligation under Government Code Section 65302(f) by identifying major community noise sources, such as traffic from major roadways, and establishing policies to promote noise-compatible land uses and effective mitigation. The Air Quality section, while not required by State law, is retained to support regional air quality goals and local strategies for reducing pollution exposure. Policies in both

sections remain unchanged from the previous version but will be evaluated during the upcoming Comprehensive General Plan Update.

The revised Natural Environment and Hazards Element remains consistent with the broader General Plan. The noise section supports land use compatibility and community health, consistent with Land Use Element Goal 2 (Promote a High Quality of Life) and Housing Element Policy H-2.6 (Ensure Housing Quality and Neighborhood Compatibility). The air quality section advances environmental protection goals outlined in the Open Space, Conservation & Community Facilities Element Goal 4 (Preserve and Protect Natural Resources) and complements the Climate Action and Adaptation Plan (CAAP) by promoting strategies to reduce vehicle emissions and encourage sustainable transportation alternatives.

Overall, the Natural Environment and Hazards Element retains its original structure and focus, ensuring Los Altos remains aligned with State planning requirements and its long-term vision for sustainability, health, and resilience.

Community Engagement

Community participation played a vital role in the development of the Safety Element. The City prioritized inclusive engagement to ensure the updated policies and actions reflected the needs and concerns of residents, stakeholders, and partner agencies, consistent with California Government Code Section 65302(g). Key outreach activities included:

- Community Workshops: The City hosted two (2) community meetings during the drafting stage:
    - *August 7, 2024:* Introduced the Safety Element process, reviewed the City's hazard profile, and gathered input on residents' concerns, such as earthquake preparedness, wildfire evacuation, and flood-prone intersections.
    - *November 13, 2024:* Presented the draft goals, policies, and actions. Public feedback supported stronger emergency communications and fire fuel management, many of which were incorporated into the revised draft.
- Online Community Survey: An online survey (Summer 2024) collected over 82 responses, identifying priorities like improved disaster notifications, emergency training, and climate resilience measures. Survey input informed new action items, such as expanded neighborhood CERT (Community Emergency Response Team) programs.
- Agency Consultation: The City coordinated with internal departments, including Development Services Department, Public Works Department, Police Department, and the Santa Clara County Fire Department, to ensure the Safety Element addresses wildfire risk, evacuation, and emergency response. Their input helped align the Safety Element with local and regional safety goals. As Los Altos is not located in a State Responsibility Area or a Cal Fire Very High Fire Hazard Severity Zone, consultation with Cal OES was not required under Government Code Section 65302(g).

- Public Review Draft: The Draft Safety Element was released for a formal 10-day public review period from April 10 to April 20, 2025. The document was posted on the City website and noticed via e-mail to interested parties. During this period, stakeholders were invited to comment. No public comments have been received to date.

- Public Notification: Public notification for all community engagement activities, including the community workshops, online survey, release of the Public Review Draft, and Planning Commission hearing — were published in the *Palo Alto Daily Post* and posted on the City's Safety Element webpage.

Environmental Review

Adoption of the General Plan Amendment for a new Safety Element and revised Natural Environment & Hazards Element is exempt from environmental review under the California Environmental Quality Act (CEQA). This action qualifies for the commonsense exemption pursuant to CEQA Guidelines Sections 15060(c)(2) and 15061(b)(3), which applies when it can be seen with certainty that there is no possibility the activity may have a significant effect on the environment. These General Plan policy updates do not authorize new development or physical improvements, but instead provide guidance for future hazard mitigation and planning efforts. They strengthen existing policy direction and ensure compliance with State law, without relaxing any environmental protection standards or enabling new impacts. As such, no further CEQA review is required. This determination is consistent with CEQA provisions governing the adoption of policy documents that do not result in direct or reasonably foreseeable indirect environmental effects.

Next Steps

The Planning Commission's consideration and recommendation on the General Plan Amendment will be forwarded to Council for consideration and decision at a future meeting which will be noticed separately.

RESOLUTION NO. 2025-XX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LOS ALTOS ADOPTING A GENERAL PLAN AMENDMENT FOR A NEW SAFETY ELEMENT AND REVISED NATURAL ENVIRONMENT & HAZARDS ELEMENT

WHEREAS, the City of Los Altos has undertaken a General Plan Amendment to ensure consistency with state law and to provide a clear, actionable framework for enhancing public safety and hazard mitigation in Los Altos; and

WHEREAS, the Safety-related sections previously contained within the Natural Environment & Hazards Element have been removed and updated through the adoption of a new, standalone Safety Element, in accordance with California Government Code Section 65302(g); and

WHEREAS, the revised Natural Environment and Hazards Element now includes only the Noise and Air Quality sections. The format, language, and content of these sections remain unchanged, aside from the removal of safety-related content, which is now addressed in a standalone Safety Element; and

WHEREAS, the City Council has determined that the revised Natural Environment & Hazards Element is in the public interest and aligns with the goals and policies of the City's General Plan; and

WHEREAS, the City of Los Altos last updated its Safety Element in 2002, and subsequent State legislation—including SB 379, SB 99, AB 747, SB 1241, SB 1035, and AB 2140—necessitated an update to address new requirements for climate adaptation, wildfire risk reduction, evacuation planning, and hazard mitigation plan integration; and

WHEREAS, the Safety Element has been prepared in accordance with Government Code Section 65302(g), ensuring coverage of hazards such as seismic activity, flooding, wildfire, hazardous materials, climate change, and emergency preparedness; and

WHEREAS, the Safety Element incorporates the City's adopted Climate Action and Adaptation Plan (CAAP) and references the Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), formally adopted by the City on August 27, 2024 (Resolution No. 2024-68); and

WHEREAS, although Los Altos is not located within a Cal Fire–designated Very High Fire Hazard Severity Zone (VHFHSZ) and therefore not subject to consultation with the Board of Forestry or Cal OES, the City consulted with the Santa Clara County Fire Department to ensure the Safety Element aligns with regional wildfire and emergency response protocols; and

WHEREAS, the City of Los Altos conducted public engagement to inform the Safety Element Update, including the establishment of a Safety Element webpage on the City's website; the publication of public notices in the Palo Alto Daily Post; distribution of informational flyers at

City Hall, the Library, the Community Center, the Senior Center, and the Grant Park Community Center; hosting two public workshops; conducting an online community survey; releasing the public review draft for community comment; and ongoing consultation with public safety stakeholders such as the Santa Clara County Fire Department and Los Altos Police Department; and

WHEREAS, adoption of the General Plan Amendment for a new Safety Element and revised Natural Environment & Hazards Element is exempt from environmental review under the California Environmental Quality Act (CEQA). This action qualifies for the commonsense exemption pursuant to CEQA Guidelines Sections 15060(c)(2) and 15061(b)(3), which applies when it can be seen with certainty that there is no possibility the activity may have a significant effect on the environment, as the update is a policy document that does not directly authorize development or other physical changes, and any future projects will be subject to separate environmental review as required; and

WHEREAS, the Planning Commission held a duly noticed public hearing on May 15, 2025, to consider the General Plan Amendment for the Safety Element and the revised Natural Environment & Hazards Element, received public testimony, and made a formal recommendation to the City Council; and

WHEREAS, the Planning Commission considered all evidence presented during its review of the Safety Element and the revised Natural Environment & Hazards Element, including: (a) written and graphical materials for the public review draft and staff presentations; (b) public comments from meetings, surveys, and the review period; (c) oral testimony from staff, stakeholders, and the public; (d) the May 15, 2025 staff report and its attachments; and (e) additional information received during the public hearing and deliberations; and

WHEREAS, the City Council held a duly noticed public hearing on XXXXX 2025, received public testimony and materials, and carefully considered the Planning Commission's recommendation, staff reports, and community input; and

WHEREAS, the finding and conclusions made by the City Council in the Resolution are based upon the oral and written evidence presented as well as the entirety of the administrative record for the proposed project, which is incorporated herein by this reference. The findings are not based on the information provided in this Resolution.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Los Altos does hereby approve a General Plan Amendment adopting the Safety Element and revised Natural Environment & Hazards Element.

I HEREBY CERTIFY that the foregoing is a true and correct copy of a Resolution passed and adopted by the City Council of the City of Los Altos at a meeting thereof on XXXX day of XXXX 2025 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Pete Dailey, MAYOR

Attest:

Melissa Thurman, MMC, CITY CLERK

City of Los Altos

SAFETY ELEMENT

City of Los Altos, April 2025

Table of Contents

1.0 Introduction

1.0 INTRODUCTION

A community's safety and well-being can be influenced by many natural and man-made hazards. The Safety Element is a mandatory chapter of a jurisdiction's General Plan, as required by State law, and addresses the need to protect citizens from risks associated with natural and man-made hazards. The Safety Element contains goals, policies, and actions to reduce the risk associated with these hazards.

1.1. Related Laws, Plans, and Programs

There are several existing plans and programs that directly relate to the goals of the Safety Element. Enacted through state and local action, these plans and programs are administered by agencies with responsibility for their enforcement.

1.1.1. California Environmental Quality Act

The California Environmental Quality Act (CEQA) was adopted by the state legislature in response to a public mandate for a thorough environmental analysis of projects that might adversely affect the environment. The provisions of the law, review procedures, and any subsequent analysis are described in the CEQA Statutes and Guidelines as amended in 1998. Safety hazards, as well as noise and air quality impacts, are recognized as environmental impacts under CEQA.

1.1.2. Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act requires the State Geologist to identify earthquake fault zones along traces of both recently and potentially active major faults. Cities and counties that contain such zones must inform the public regarding zone location.

1.1.3. Seismic Hazards Mapping Act

Pursuant to the Seismic Hazards Mapping Act, the State Geologist compiles maps identifying seismic hazard zones. Development in seismic hazard areas is subject to policies and criteria established by the State Mining and Geology Board. Additionally, approval of development on a site within a seismic hazard area mandates the preparation of a geotechnical report and local agency consideration of compliance with applicable state requirements.

1.1.4. Landslide Hazard Identification Program

The Landslide Hazard Identification Program requires the State Geologist to prepare maps of landslide hazards within urbanizing areas.

1.1.5. Colbey-Alquist Floodplain Management Act

The Colbey-Alquist Floodplain Management Act encourages local governments to plan, adopt, and enforce land use regulations for floodplain management in order to protect people and property from flooding hazards. This act also identifies requirements that jurisdictions must meet to receive state financial assistance for flood control.

1.1.6. Santa Clara County General Plan Safety Element

The Santa Clara County General Plan Safety Element identifies geologic and other natural hazards. A key strategy of the element for reducing the potential risks to life and property from natural hazards is to minimize the number

of people who permanently reside in high hazard areas.

1.1.7. Los Altos Flood Hazard Area Regulations Ordinance

The City's Flood Hazard Area Regulations (adopted as part of the Municipal Code) establish regulations of use, structures, grading and streambed alteration within designated flood, flood-related erosion, and mudslide hazard areas. These provisions apply to property identified in the Flood Insurance Study for the City of Los Altos (dated July 16, 1980) and the Flood Insurance Rate Map generated by the Federal Emergency Management Agency (FEMA).

1.1.8. Hazardous Waste Management Plan

The Santa Clara County Hazardous Waste Management Plan provides basic policy direction to address current and future hazardous waste management issues. All facilities and personnel of the County and affected cities are organized in the plan to effectively respond to hazardous materials emergencies.

1.1.9. Emergency Operations Plan

The City of Los Altos Emergency Operations Plan outlines authorities, organizational structures, and procedures used to coordinate activities related to local and regional emergencies or disasters. Taken with the Safety Element, the Emergency Operations Plan is a critical planning document that ensures the City is adequately prepared to respond to extreme hazard events.

The plan was developed in 2015 as part of the North Santa Clara County common-format Emergency Operations Plan for the Cities of Los Altos, Palo Alto, Mountain View, and Sunnyvale. The plan was reviewed and revised by the City of Los Altos in January 2021.

1.1.10. County's Multi-Jurisdictional Hazard Mitigation Plan

The City of Los Altos is a jurisdictional partner in the Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP). The MJHMP for Santa Clara County was developed in accordance with the Disaster Mitigation Act of 2000 and followed FEMA's 2023 Local Hazard Mitigation Plan guidance. The MJHMP was locally adopted by the City on August 27, 2024.

The MJHMP incorporates a process where hazards are identified and profiled, the people and facilities at risk are analyzed, and mitigation actions are developed to reduce or eliminate hazard risk. The implementation of these mitigation actions, which include both short-term and long-term strategies, involve planning, policy changes, programs, projects, and other activities.

Assembly Bill (AB) 2140 authorizes local governments to adopt the Local Hazard Mitigation Plan (LHMP) with the General Plan Safety Element, through integration or incorporation by reference. The MJHMP is fully integrated into the Safety Element in accordance with AB 2140, Government Code 65302 (g)(4)(D)(ii), and is located at https://emergencymanagement.sccgov.org/partners/hazard-mitigation-program.

The vulnerability assessment conducted as part of the MJHMP satisfies the requirement to address climate resiliency and adaptation in the Safety Element (per Senate Bill [SB] 379).

1.1.11. Climate Action & Adaptation Plan

The 2022 Climate Action and Adaptation Plan (CAAP) assesses the impacts of Los Altos on the climate, how Los Altos can reduce its impact on

the climate, and how Los Altos can adapt to the changing climate.[1] The CAAP includes a qualitative and quantitative assessment of the impacts of City of Los Altos on climate change. An updated greenhouse gas (GHG) emissions inventory was conducted as part of this update. The CAAP also includes an assessment of climate impacts on the City as well as mitigation strategies, priority actions, and implementation measures to address climate change. The CAAP Climate Hazards Ranking is fully integrated into the Safety Element.

[1] City of Los Altos, *Los Altos Climate Action and Adaptation Plan*, 2022,

2.0 Natural & Human-Made Hazards Analysis

2.0 NATURAL & HUMAN-MADE HAZARDS ANALYSIS

As in all communities, natural conditions and human activities occur in Los Altos that have an effect on the quality of life of its residents. Reducing the risks associated with such hazards and being prepared for emergency situations is essential for creating an attractive and healthy environment for all residents and businesses within the City. This section of the Safety Element identifies the City's approach for reducing potential hazards from natural conditions and human activities, along with the City's emergency planning and response.

2.1. Planning Area

The Safety Element relates to the entire City of Los Altos, which is an incorporated city in Santa Clara County. Santa Clara County is located in the southeastern region of the San Francisco Bay Area. The City is located in the northwestern portion of Santa Clara County within the San Francisco Peninsula, between the southern reaches of the San Francisco Bay and the Santa Cruz Mountains.

Los Altos is bordered by the City of Palo Alto and the City of Mountain View to the north; the City of Sunnyvale to the east; the City of Cupertino and the unincorporated areas of Santa Clara County to the south; and the Town of Los Altos Hills to the west. Los Altos also abuts the Santa Cruz Mountains, which run southeast from the San Francisco Peninsula along the western border of Santa Clara County.

The analysis of existing conditions and potential hazards for this Safety Element applies to the entirety of the City of Los Altos. Certain hazards and disaster events are regional and/or interrelated, such as earthquake and tsunami, and may transcend geographic boundaries. Thus, this Safety Element also considers potential hazards outside of the planning area that may occur or originate in other jurisdictions when the potential impact of those hazards might impact the City.

2.2. Geologic Hazards

Santa Clara County has a geologically diverse composition of bayside alluvial plains, hills, valleys, and mountains and is located in the Coast Ranges Geomorphic Province, which extends roughly 400 miles from Oregon to Southern California. To the west is the Pacific Ocean, where the coastline is uplifted, terraced, and wave-cut. To the east is the Central Valley of California. Major geological and hydrogeological features of Santa Clara County include the San Francisco Bay to the north and Santa Clara Valley, the geologic trough that extends roughly 90 miles from the San Francisco Bay to the City of Hollister. The Coast Ranges are subparallel to the Holocene-Active San Andreas fault, and Santa Clara County intersects with various faults that run parallel to the San Andreas fault. The proximity of the many faults in the area may exacerbate geologic and seismic hazards.

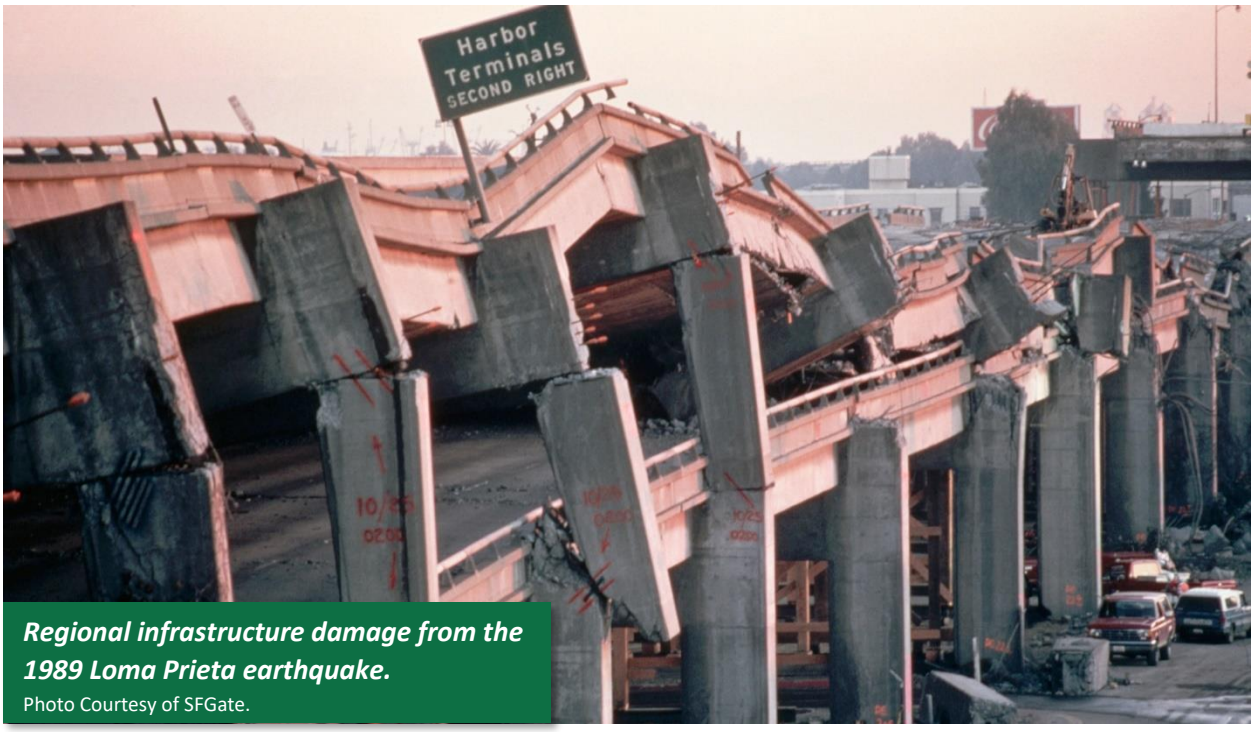
The City is primarily underlain by marine and continental sedimentary rocks and soil types that range from unconsolidated to semi- or loosely consolidated. Unconsolidated soil types may be more susceptible to geologic hazards. **Figure 1** and **Table 1** show the geologic makeup of the City of Los Altos.

Topographically, Los Altos is relatively flat and is located where the foothills of the Santa Cruz Mountains meet the Santa Clara Valley. Various creeks and riparian areas, including Adobe Creek, Hale Creek, Permanente Creek, and Stevens Creek, run down the foothills into the City. The foothills that abut the City to the south are prone to geologic hazards. The primary geologic concerns within Los Altos include landslides and seismic impacts related to earthquakes. Seismic hazards can lead to fault rupture, ground shaking, and liquefaction. They can also be one of the causes of landslides, subsidence, tsunamis, and seiches. Other geologic hazards include subsidence, expansive soils, tsunamis, and seiches.

Table 1: Geology

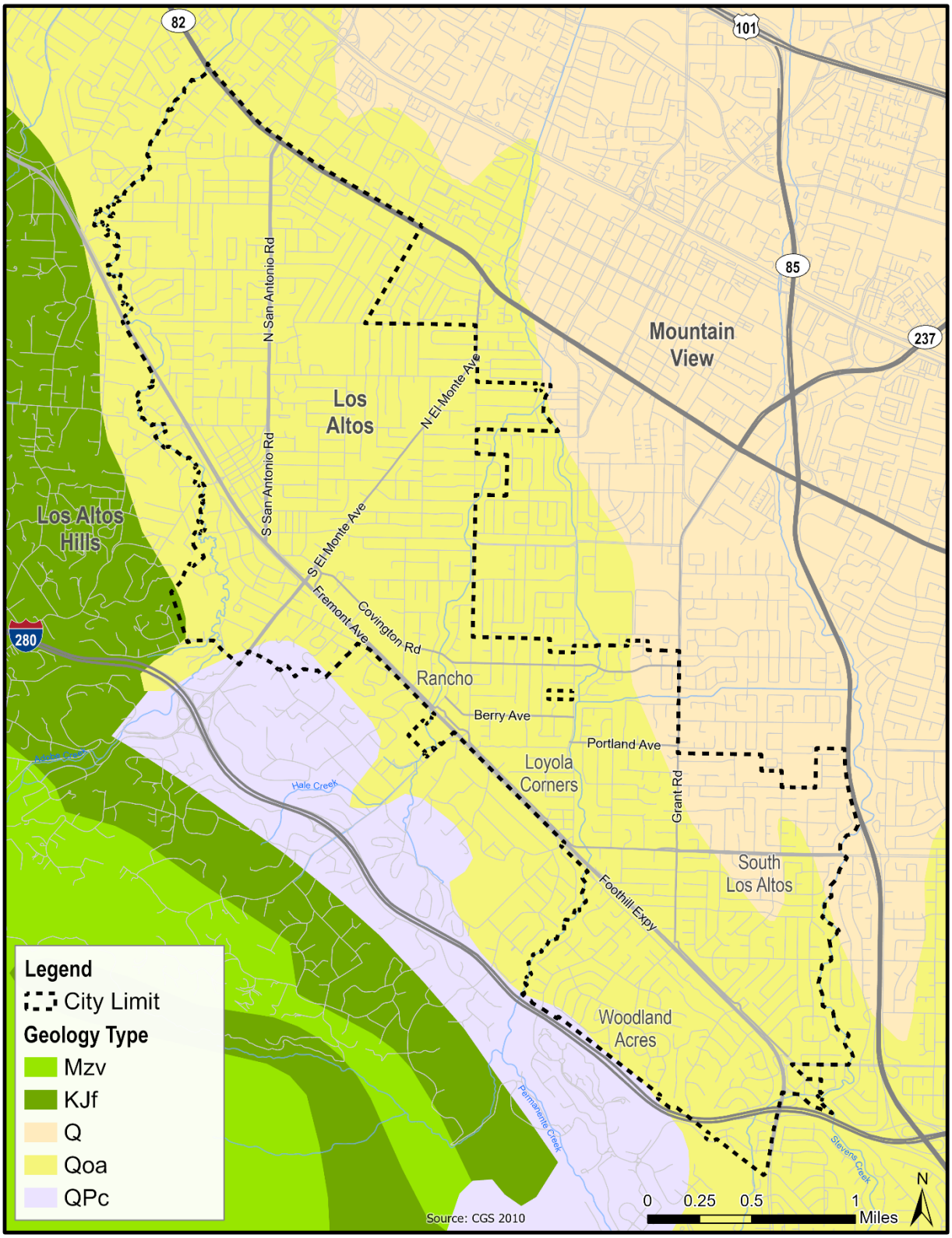
Rock Types	General Lithology	Age	Description
Q	Marine and nonmarine (continental) sedimentary rocks	Pleistocene-Holocene	Alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated. Mostly nonmarine but includes marine deposits near the coast.
QPc	Nonmarine (continental) sedimentary rocks	Pliocene	Sandstone, shale, and gravel deposits; are mostly loosely consolidated.
Qoa	Marine and nonmarine (continental) sedimentary rocks	Pleistocene	Older alluvium, lake, playa, and terrace deposits.
KJf	Marine sedimentary and metasedimentary rocks	Cretaceous-Jurassic	Cretaceous and Jurassic sandstone with smaller amounts of shale, chert, limestone, and conglomerate. Includes Franciscan melange, except where separated.
Mzv	Metavolcanic rocks	Mesozoic	Undivided Mesozoic volcanic and metavolcanic rocks. Andesite and rhyolite flow rocks, greenstone, volcanic breccia and other pyroclastic rocks; in part strongly metamorphosed. Includes volcanic rocks of Franciscan Complex: basaltic pillow lava, diabase, greenstone, and minor pyroclastic rocks.

Source: California Geological Survey, https://maps.conservation.ca.gov/cgs/gmc/App/.



Regional infrastructure damage from the 1989 Loma Prieta earthquake.
Photo Courtesy of SFGate.

Figure 1: Geology



Source: California Department of Geology and Mines; Esri; City of Los Altos.

2.2.1. Seismic Hazards

The City of Los Altos is located in a region with active seismic faults and is therefore subject to risk of hazards associated with earthquakes. Seismic activity poses two types of hazards: primary and secondary. Primary hazards include ground rupture, ground shaking, ground displacement, and subsidence and uplift from earth movement. Primary hazards can induce secondary hazards, such as ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (tsunamis and seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires.

2.2.1.1. Fault Rupture

The City of Los Altos is situated in the central area of the Coast Ranges Geomorphic Province, a region with characteristic northwest-trending landforms and geologic structures. The Coast Range Geomorphic Province is an area of moderate-to-high seismic activity. Earthquake severity is typically categorized according to magnitude (a measure of the amount of energy released when a fault ruptures) and seismic intensity (a qualitative estimate of the damage caused by an earthquake at a given location). Because the amount of destruction generally decreases with distance from the epicenter (the point at the earth's surface directly above where the earthquake originated), earthquakes are assigned several intensities. The most commonly used seismic intensity scale is the Modified Mercalli Intensity scale, which has 12 levels of damage. The higher the number, the greater the damage.

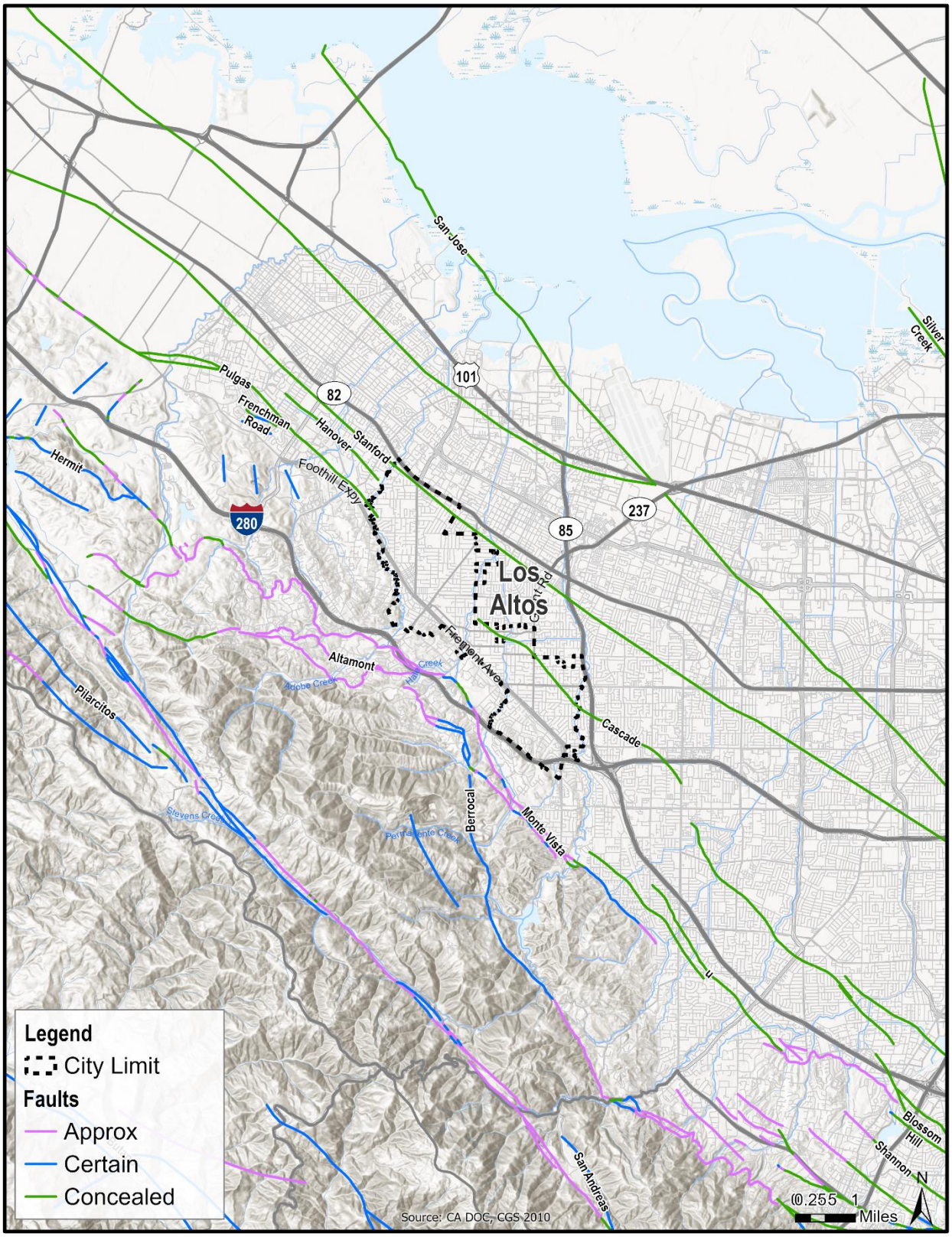
The largest earthquake likely to occur on a fault or fault segment is called the maximum credible or characteristic earthquake. A maximum probable earthquake (MPE) is the earthquake most likely to occur in a specified period of time, such as 30 to 500 years. In general, the longer the period between earthquakes on a specific fault segment (recurrence interval), the larger the earthquake. The State of California, under the guidelines of the Alquist-Priolo Earthquake Fault Zoning Act of 1972, regulates development near active faults so as to mitigate the hazard of surface fault rupture. The California Department of Conservation classifies faults according to the following criteria:

- ***Holocene-Active Fault:*** A fault that has had surface displacement within Holocene time (the last 11,700 years)
- ***Pre-Holocene Fault:*** A fault whose recency of past movement is older than 11,700 years and thus does not meet the criteria of Holocene-active fault as defined in the State Mining and Geology Board regulations

An earthquake or rupture along one of the faults in the vicinity could result in casualties and extensive property damage. The effects of such a quake may result from aftershocks and secondary effects such as fires, landslides, dam failure, liquefaction, and other threats to public health and safety. California is a seismically active area with numerous faults throughout the region. The City of Los Altos is listed within a state-designated Alquist-Priolo Earthquake Fault Zone.[2] The Alquist-Priolo Earthquake Fault Zone Act prevents the construction of human-occupied buildings on the surface trace of Holocene-Active faults. The San Andreas fault is the closest Holocene-Active fault in the region, bordering the City to the west. Several faults are located within and near the City, including the Monte Vista fault and various pre-Holocene faults.

[2] State of California Department of Conservation, *Alquist-Priolo Earthquake Fault Zones*, accessed May 17, 2024, https://www.conservation.ca.gov/cgs/alquist-priolo.

Figure 2: Regional Fault Locations



Source: California Department of Conservation; California Geological Survey; Esri; City of Los Altos.

San Andreas Fault. The San Andreas fault is a continental, right lateral transform fault that forms the tectonic boundary between the Pacific Plate and the North American Plate. The fault runs roughly 810 miles from Cape Mendocino in the north to the Salton Sea in Southern California. The largest historical earthquakes along the San Andreas fault include the 1857 Fort Tejon earthquake and the 1906 San Francisco earthquake. The 1857 Fort Tejon earthquake occurred in January 1857 with an estimated magnitude of 7.9, which resulted in two deaths and significant damage throughout the area. The length of the surface rupture is estimated at 225 miles. The 1906 San Francisco earthquake occurred on April 18, 1906, with a magnitude of 7.9. The fault slipped over a segment of 270 miles, caused significant damage, and resulted in an estimated 3,000 deaths. The earthquake also caused the 1906 San Francisco fire, which burned for three days. Between the earthquake and fire, 28,000 buildings were destroyed with a total property value loss estimated at $350 million. The 1906 earthquake is considered the most devastating earthquake in the state to date.

Monte Vista Fault. The Monte Vista fault runs approximately 29 miles from branching off of the San Andreas fault and traversing southeast through the neighboring Town of Los Altos Hills to Cupertino. The fault is thought to be Holocene-aged with fault displacement in the last 11,700 years; however, there is no historical record of fault rupture along this fault.

Pre-Holocene faults. Various Pre-Holocene faults are located in proximity to the City. The Cascade and Stanford faults are Quaternary faults that run northwest and underlie portions of the City of Los Altos. The Berrocal Fault is a late Quaternary fault to the southwest of the City. These faults are part of a complex system of pre-Holocene faults located throughout the area that roots southwestward into the San Andreas fault zone. Other nearby faults include the Hanover fault and San Jose fault. These faults are understood to be inactive faults that pose little threat to the City.[3]

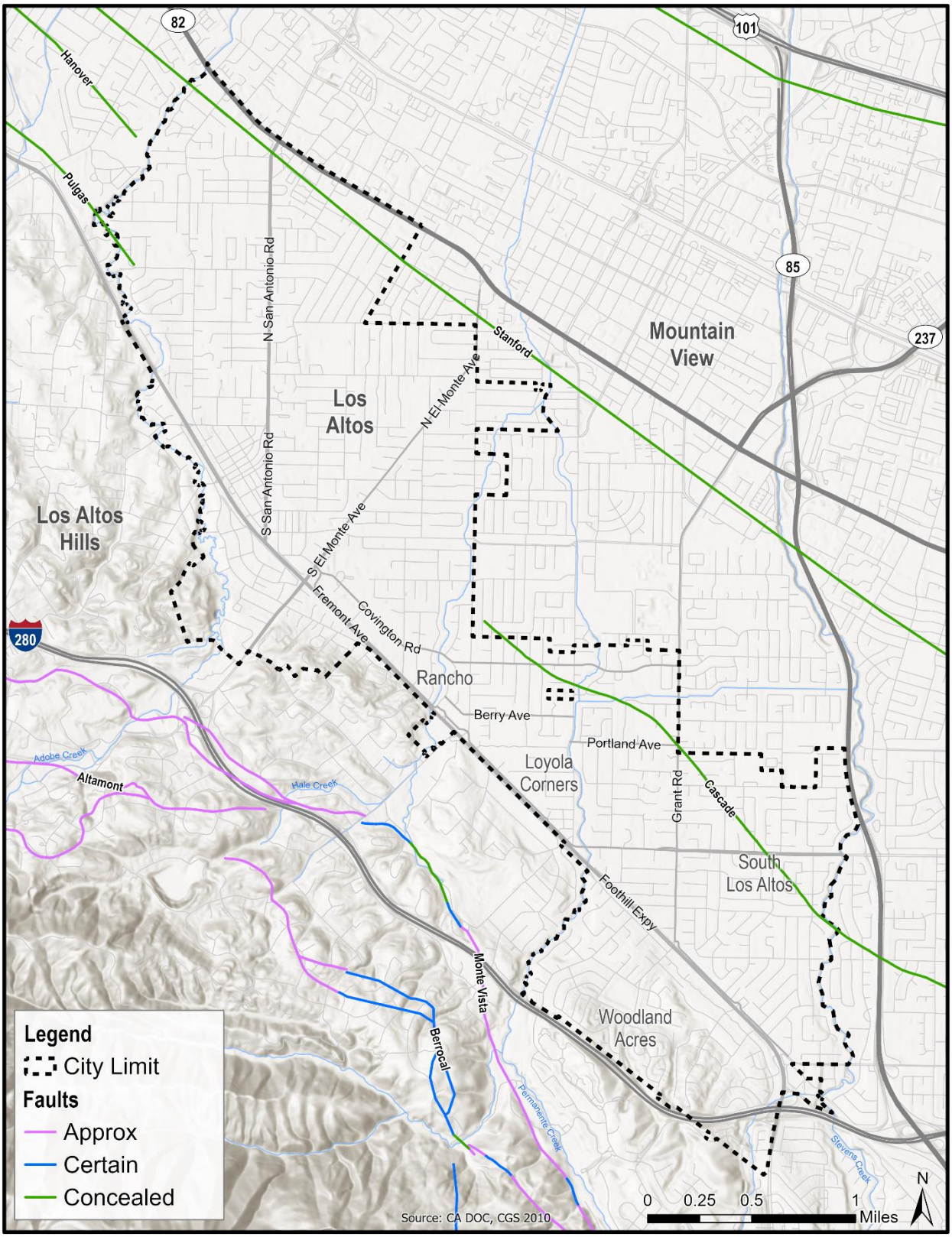
2.2.1.2. Ground Shaking

Ground shaking is characterized by the physical movement of the land surface during earthquakes. Given the City's proximity to active faults in the region, seismic ground shaking could damage buildings and cause objects to fall, creating hazards to life and property. Because Los Altos is in an earthquake-prone area of Northern California, and due to the close proximity to the San Andreas fault, seismic shaking would most likely be felt throughout the City. The effects of significant ground shaking would be most severe in areas with steep slopes, weak soils, and vulnerable structures. In a probable earthquake scenario, the majority of one- and two-story wood structures in the planning area would not sustain serious damage. Older, unreinforced masonry buildings in the downtown area that were built prior to improved building codes may be subject to severe damage or collapse in the event of an earthquake.

Figure 4 shows the shake potential in the City of Los Altos. It shows the relative intensity of ground shaking from anticipated future earthquakes. Percentage of gravity (% g) is a method for expressing acceleration, measured relative to gravity (g). Shaking potential at 50 percent would be 0.50 g, perceived as severe ground shaking with moderate to heavy potential damage on the Modified Mercalli Intensity scale.

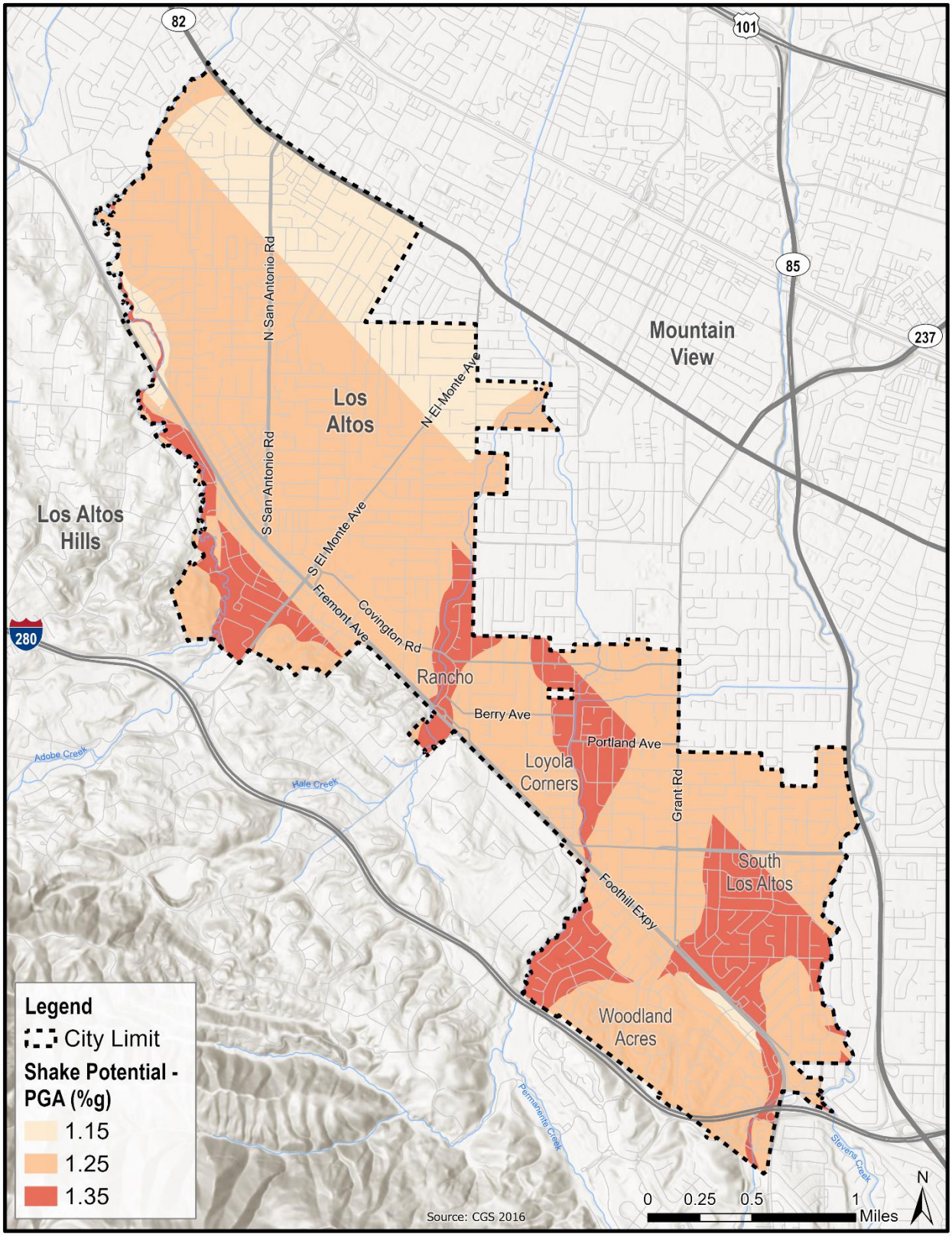
[3] USGS, *Quaternary Fault and Fold Database of the United States*, accessed October 16, 2024, https://www.usgs.gov/programs/earthquake-hazards/faults.

Figure 3: Local Fault Locations



Source: California Department of Conservation; California Geological Survey; Esri; City of Los Altos.

Figure 4: Shake Potential Map



Source: California Geological Survey; Esri; City of Los Altos.

Based on the shake potential map, the strongest ground shaking that could occur in Los Altos would be 1.15 to 1.35 g. For comparison purposes, the peak ground acceleration in a single direction measured during the 1994 Northridge earthquake was 1.82 g, moment magnitude of 6.7; this was the highest ever instrumentally recorded in urban North America. The shake potential map shows the projected maximum capacity for ground shaking in the specific geography based on conditions such as topography, soil types, and groundwater location. The entirety of the City is vulnerable to the same levels of ground shaking.

2.2.1.3. Liquefaction

Seismic ground shaking of relatively loose, granular soils that are saturated or submerged can cause the soils to liquefy and temporarily behave as dense fluid. Liquefaction occurs primarily in areas of recently deposited sands and silts with poorly consolidated sediment and in areas of high groundwater levels. Los Altos sits on the very deep alluvial soils of the Santa Clara Valley floor. These soils, consisting of silt, clay, sand, and gravel deposits, can extend to a depth of 4,000 to 5,000 feet throughout most of the City.

Figure 5 shows areas of liquefaction hazards throughout the City. Mapped liquefaction zones exist near the creeks that run through Los Altos. Namely, the areas surrounding Adobe Creek, Hale Creek, Permanente Creek, and Stevens Creek are areas of potential liquefaction. Although severe ground motion resulting from an earthquake would be apparent in Los Altos because of the depth of the loosely consolidated soils, damage generally would not be serious to the predominant one- or two-story wood frame structures that are prevalent in the City of Los Altos.

2.2.2. Subsidence

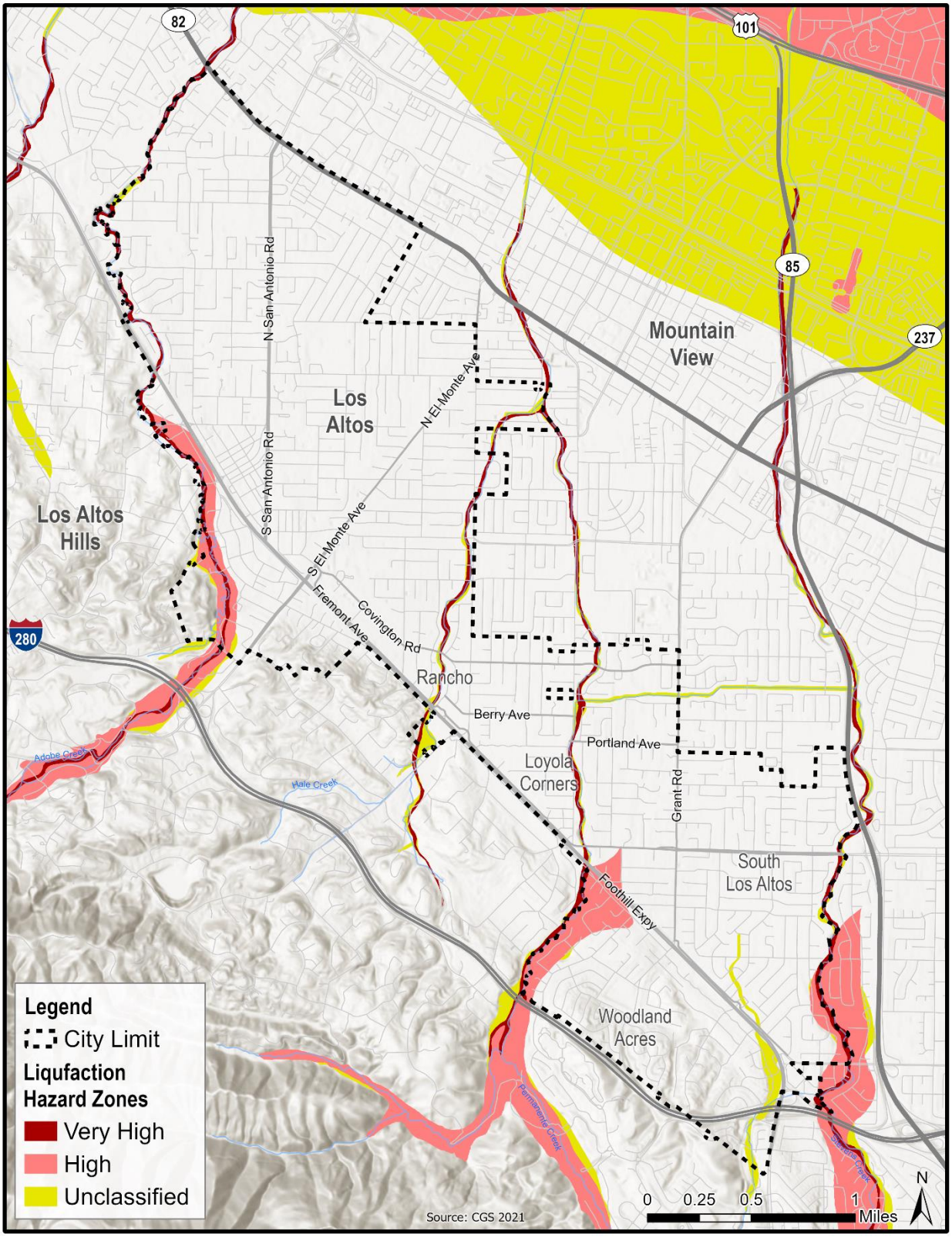
Ground subsidence is the gradual settling or sinking of the ground surface with little or no horizontal movement. Most ground subsidence is anthropogenic (created or influenced by humans) and is usually associated with the extraction of oil, gas, or groundwater from below the ground surface in valleys filled with recent alluvium. Land subsidence can also occur during an earthquake because of offset along fault lines and as a result of the settling and compacting of unconsolidated sediment from the shaking of an earthquake.

The United States Geological Survey (USGS) documents areas of land subsidence throughout California, including historical and current subsidence. The USGS has identified significant areas of regional subsidence as a result of groundwater pumping throughout Santa Clara County.

The majority of Santa Clara Valley, including the City of Los Altos, has been identified as an area of land subsidence. Generally, eastern areas of the City are identified as areas of land subsidence. **Figure 6** shows California's Groundwater Update land subsidence data which maps 0.25-foot intervals of land subsidence. The data shows that eastern areas of the City have experienced up to 0.25 feet of land subsidence.

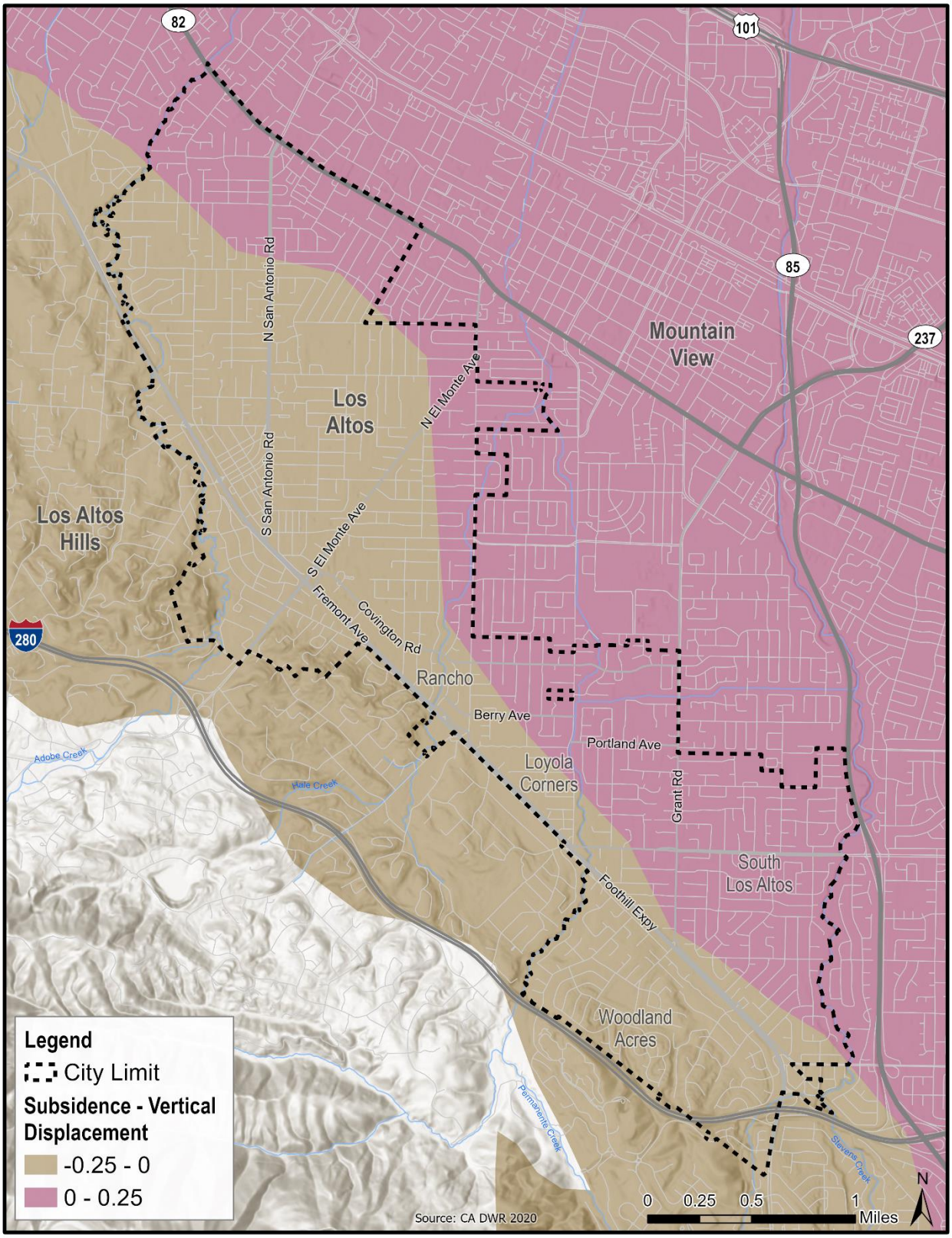
Due to the geology of the City and the potential for seismicity, land subsidence may impact significant eastern portions of Los Altos. Continued groundwater withdrawal may worsen land subsidence throughout the planning area.

Figure 5: Liquefaction Zones



Source: US Geological Survey; Esri; City of Los Altos.

Figure 6: Land Subsidence



Source: California's Groundwater Update 2020 (Bulletin 118), Land Subsidence Vertical Displacement Polygon dataset.

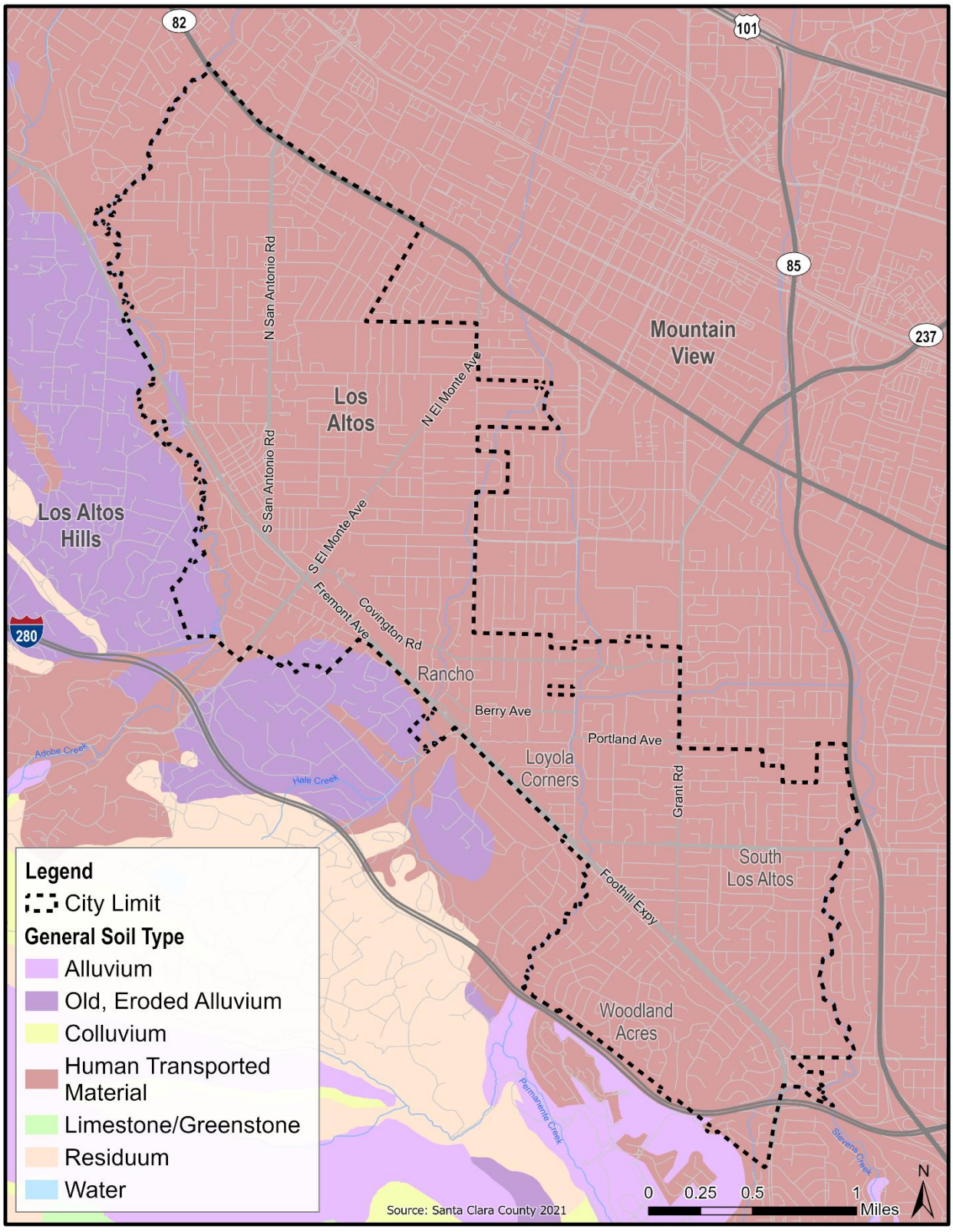
2.2.3. Expansive Soils

Expansive soils are those that have the ability to expand or contract, changing in volume based on their moisture content. They are typically composed of a form of expansive clay mineral that readily absorbs water and swells, leading to an increase in volume when wet and shrinkage when dry. This shrink-swell process can cause fatigue and cracks in infrastructure or foundations placed directly on or within expansive soils. Structural damage may result over a long period of time, making it difficult to estimate the severity of long-term impacts.

The geology of Los Altos may be susceptible to expansive soils due to groundwater. The City is within the Santa Clara Valley which is characterized by high groundwater levels and potentially soils with high clay content. **Figure 7** shows that the majority of soil throughout the City is human-transported material. There may be swelling potential within these soils. Expansive soils have not been well documented throughout the City, but the potential for expansive soils exists throughout the area where the Santa Clara Valley contains groundwater and soil conditions that are conducive.

Resilient Los Altos and Community Emergency Response Team (CERT) provide volunteer support to the City.
Photos Courtesy of Los Altos CERT and Resilient Los Altos

Figure 7: Soils



Source: Santa Clara County Planning Office GIS; Esri; City of Los Altos.

2.2.4. Landslides

A landslide is defined as the movement of a mass of rock, debris, or earth down a slope. Landslides are subdivided by the type of geologic material (bedrock, debris, or earth). Debris flows (commonly referred to as mudflows or mudslides) and rock falls are examples of common landslide types.[4] Landslides can be initiated in slopes already on the verge of movement by rainfall, snowmelt, changes in water level, stream erosion, changes in groundwater, earthquakes, volcanic activity, disturbance by human activities, or any combination of these factors. When a hillside or other slope becomes unstable, downslope movement of rock and soil occurs under the direct influence of gravity. Landslides can include events such as rock falls, topples, slides, spreads, and flows.

Landslides are often sudden, although some occur very slowly over a long period of time. Loose and fractured materials are more likely to slide than compact materials or solid rock, and steep slopes are at greater risk than gentle rises. Areas that have been recently burned by wildfires are more susceptible to sliding because the fire destroys the plant cover that helps stabilize slopes. Areas underlain by shale and siltstone are more prone to landslides when compared to other bedrock geology, which is more prone to slow-developing, slump-type failure.

Landslides are usually induced by either earthquakes or moisture. The shaking of an earthquake can decrease slope stability or, in a more severe instance, can fracture the earth's material enough to slide. Moisture-induced landslides can occur when the ground soaks up enough water that it becomes loose and unstable. This is often the result of intense or long-lasting rainfall but can also result from a pipeline burst or overwatering landscapes. In some cases, hillside erosion from rainfall can cause instability and result in landslides. If the slide is wet enough to become mud, the event is known as a mudslide or a mudflow.

Figure 8 shows the relative likelihood of deep-seated landsliding based on regional estimates of rock strength and steepness of slopes.[5] On the most basic level, weak rocks and steep slopes are most likely to generate landslides. The map uses detailed information on the location of past landslides, the location and relative strength of rock units, and the steepness of the slope to estimate susceptibility to deep-seated landsliding, shown through classes of landslide susceptibility ranging from 0 (low) to 10 (high).

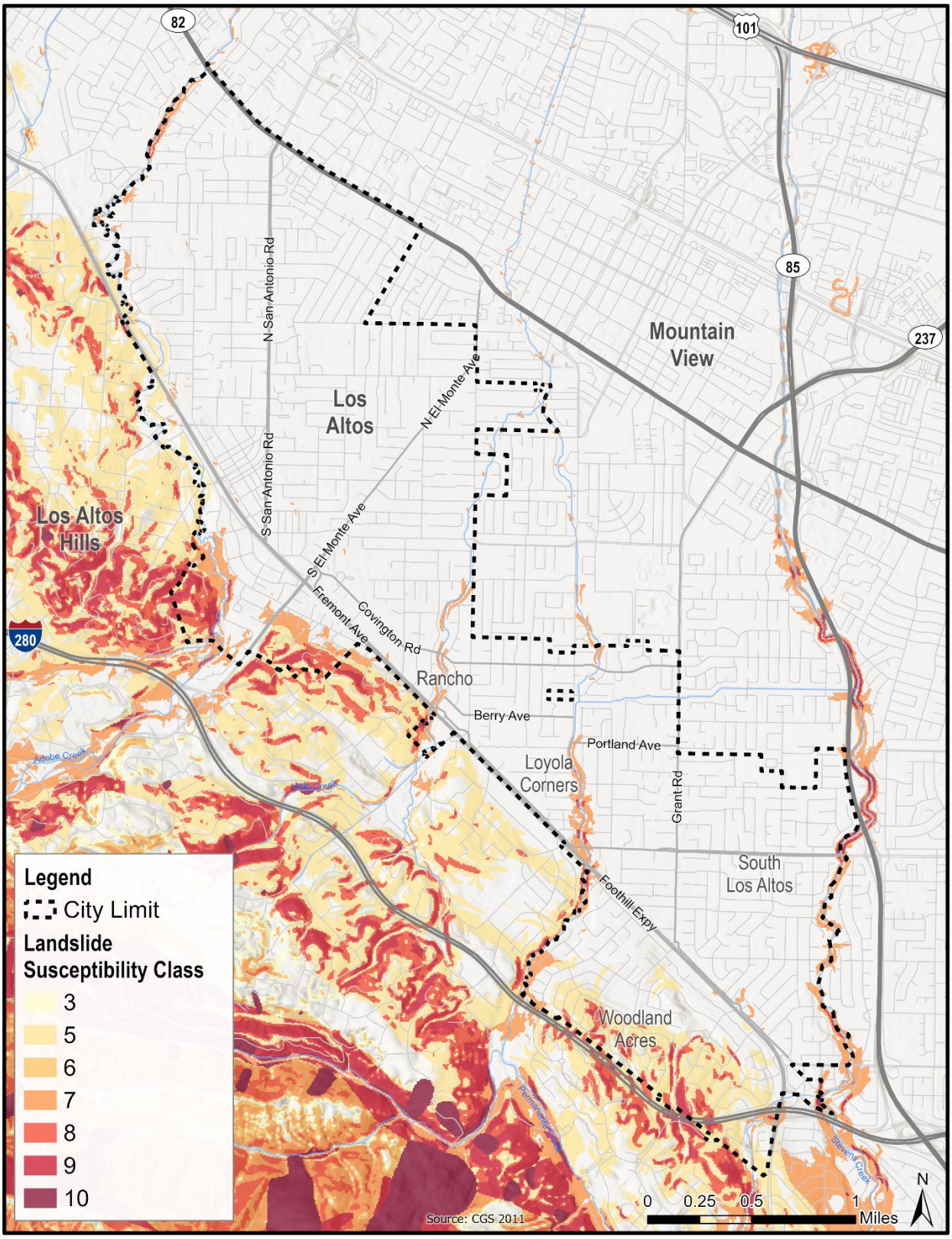
These classes generalize that on very low slopes, landslide susceptibility is low even in weak materials, but it increases with slope and in weak rocks. Landslide susceptibility is based on rock strength and slope steepness. Areas with steep or unstable slopes have the highest landslide risk in Los Altos. Landslides are also likely on hillsides where rock strata parallel surface slopes, high clay content absorbs excess water, displacement fractures a fault zone, or erosion or human activity removes a slope's base. Landslides are unlikely on slopes under 15 percent. In Los Altos, slopes of 15 percent or more are isolated to the City's southwest. While no recent landslides have occurred in the planning area, development on such slopes should be carefully reviewed to mitigate risks.

Source: Washington Geological Survey, accessed May 20, 2024, https://www.dnr.wa.gov/publications/ger_fs_landslide_processes.pdf.

[4] United States Geological Survey, "What is a landslide and what causes one?", accessed May 20, 2024, https://www.usgs.gov/faqs/what-landslide-and-what-causes-one.

[5] "Deep-seated landslide" is typically defined as a landslide that is slow moving, rooted in bedrock, and covering larger areas.

Figure 8: Landslide Areas



Source: California Department of Conservation; California Geological Survey; Esri; City of Los Altos.

2.2.5. Tsunamis and Seiches

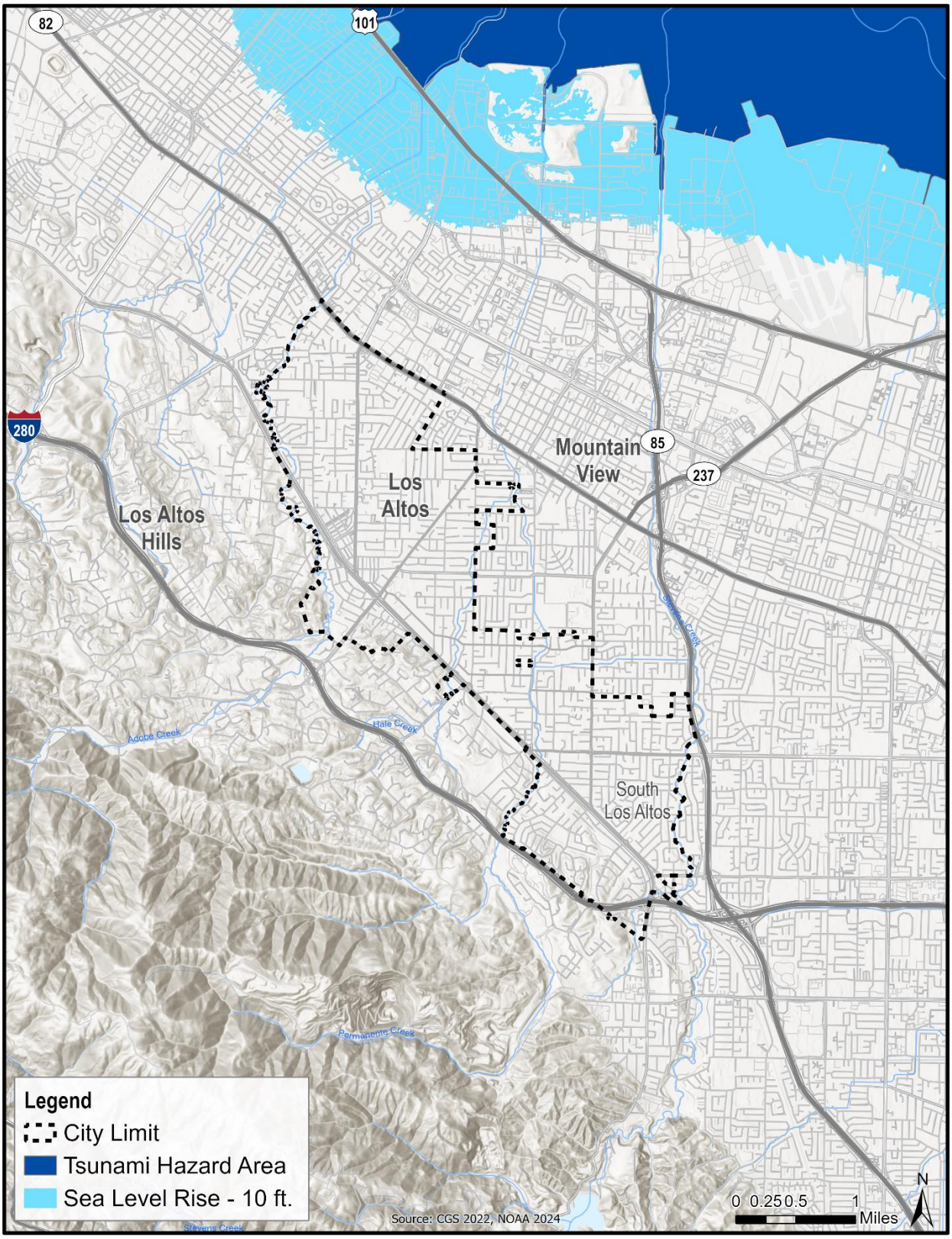
A tsunami is a wave or series of waves generated by a large and sudden upward movement of the ocean floor, usually the result of an earthquake below or near the ocean floor. This sudden displacement and force create waves that radiate outward in all directions away from their source, sometimes crossing entire ocean basins. Los Altos is located five to six miles from the San Francisco Bay with an elevation of 150 feet or more above sea level. Consequently, potential hazards associated with water waves are not likely to impact populations and facilities within the City. Furthermore, based on the Tsunami Hazard simulations by the California Department of Conservation, a tsunami event will not impact the City of Los Altos (refer to **Figure 9**).

However, regional infrastructure and facilities in nearby areas that serve the City, such as the Palo Alto Regional Water Quality Control Plant, may be impacted by tsunamis. Inundation due to tsunami could cause regional impacts that disrupt water and utility services by damaging infrastructure such as pipelines, power lines, and sewage systems. Secondary impacts to the City of Los Altos might include contamination of water supplies, loss of power, and interruptions to communication and transportation networks. These disruptions can lead to broader public health and safety issues, affecting emergency response and overall community resilience.

A seiche is defined as a standing wave oscillation in an enclosed or semi-enclosed, shallow to moderately shallow water body to the basin, such as a lake, reservoir, bay, or harbor, due to ground shaking, usually following an earthquake. Seiches continue in a pendulum fashion after the cessation of the originating force, which can be tidal action, wind action, or a seismic event. Seiches are often described by the period of the waves (how quickly the waves repeat themselves) since the period will often determine whether adjoining structures will be damaged. The period of a seiche varies depending on the dimensions of the basin. Whether the earthquake will create seiches depends upon a number of earthquake-specific parameters, including the earthquake location (a distant earthquake is more likely to generate a seiche than a local earthquake), the style of fault rupture (e.g., dip-slip or strike-slip), and the configuration (length, width, and depth) of the basin.

The nearest body of water to the City is the San Francisco Bay; however, seiches within the Bay would not impact the City. Similarly to tsunami, although populations and facilities within the City may not be directly impacted, regional infrastructure may be impacted by seiches. The Palo Alto Regional Water Quality Control Plant is of particular concern because it serves the City of Los Altos but is located within the tsunami and sea level rise hazard area in Palo Alto. Seiches that impact surrounding areas may damage infrastructure such as pipelines, power lines, and sewage systems and cause secondary impacts to the City including contamination of water supplies, loss of power, and interruptions to communication and transportation networks.

Figure 9: Tsunami and Sea Level Rise Map



Source: California Geologic Survey, National Oceanic and Atmospheric Administration; Esri; City of Los Altos.

2.3. Fire Hazards

2.3.1. Wildland Fires

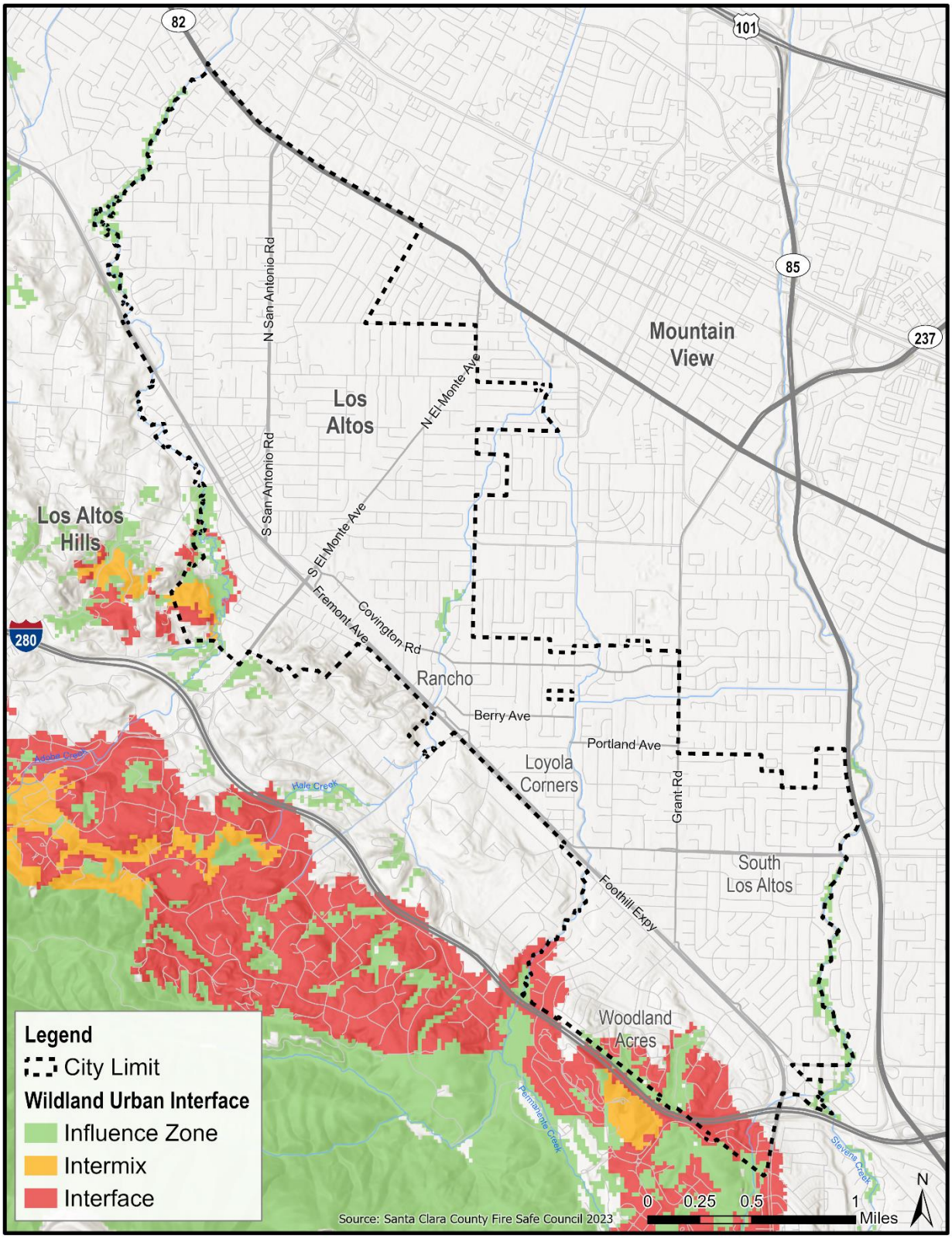
A wildfire is defined as an unplanned and unwanted wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the object is to extinguish the fire. Wildfire is a natural part of the California ecosystem, helping to clear brush and debris, and is a necessary part of various species' life cycles. Wildfires can be sparked by lightning, accidents, or arson.

Human activity has changed the buffer zone between urbanized and undeveloped areas, known as the wildland-urban interface, where naturally fire-prone landscapes abut developed neighborhoods. The natural setting of a wildland-urban interface can make these areas highly desirable places to live, and many of these areas in California are now developed. This development has brought more people into wildfire-prone areas. The availability of fuel and increasing encroachment into the wildland-urban interface have made wildfires a common and dangerous hazard in California. Structural conditions that may affect fire control include the type and use of a structure, roof covering, surrounding landscaping, and exposure to the building.

The Santa Clara County Community Wildfire Protection Plan (CWPP) identifies wildland urban interface areas within the City of Los Altos; refer to **Figure 10**. The CWPP Wildland Urban Interface dataset identifies a wildland urban influence zone (lowest risk), wildland urban intermix, and wildland urban interface (highest risk). The majority of the City is not a designated wildland urban interface area. The City is mostly developed which has a low risk for wildfire; however, development intermingles with undeveloped, open space, and natural areas that are prone to wildfire. The wildland-urban interface within the City primarily exists where development blends into the foothills of Rancho San Antonio County Park and the Santa Cruz Mountains to the southwest. Wildland urban interface areas primarily include residential areas in Woodland Acres and areas north of South El Monte Ave and west of Foothill Expressway. Additionally, wildland-urban interface areas include riparian zones along Adobe Creek, Stevens Creek, Hale Creek and Permanente Creek which run throughout the City. Regional wildfires and large wildfires outside of the City, particularly wildfires in undeveloped areas of unincorporated Santa Clara County, may cross wildland-urban interface areas and threaten the City. Urban fire hazards in Los Altos are concentrated primarily in dense nonresidential areas with limited landscape and separation between structures.

The City will reduce the potential for dangerous fires by coordinating with the Santa Clara County Fire Department to implement fire hazard education and fire protection programs. The City will also ensure that construction is consistent with the current California Fire Code including water flow and pressure requirements for firefighting purposes, requirements for turnarounds at dead end roads, road widths, and distances between fire hydrants.

Figure 10: Wildland Urban Interface



Source: Santa Clara County CWPP GIS Data Portal; Esri; City of Los Altos.

2.3.2. Fire Hazard Severity Zones

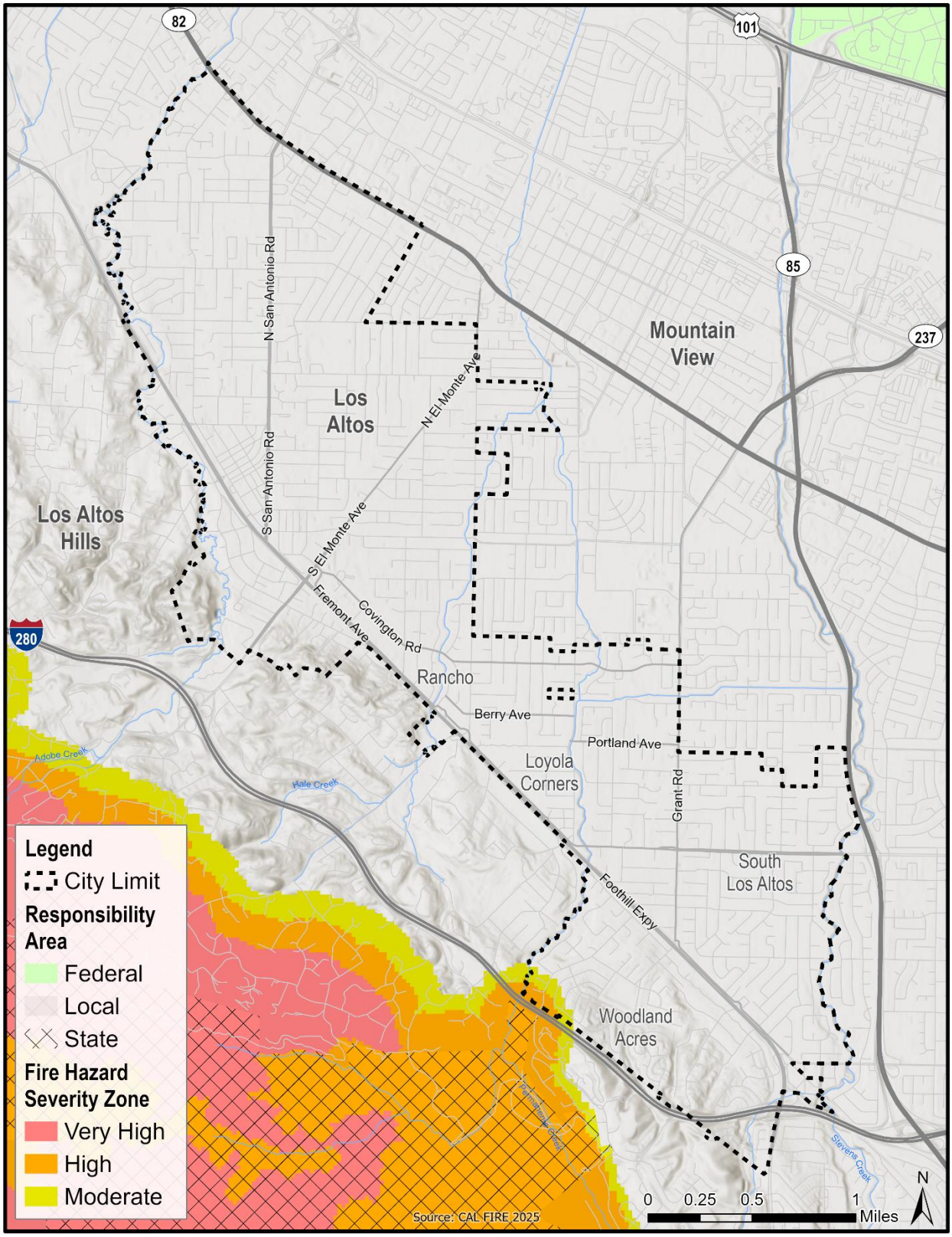
The California Department of Forestry and Fire Protection (Cal Fire) prepares wildfire hazard severity maps, including mapping areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as fire hazard severity zones (FHSZ), define the application of various mitigation strategies and influence how people construct buildings and protect property to reduce the risk associated with wildland fires. While a designation of FHSZ does not predict when or where wildfire will occur, it does identify areas where wildfire hazards could be more severe and therefore is of greater concern. Zones are designated in varying degrees, from moderate to high and very high.

An FHSZ may fall under one of three types of responsibility areas: Local Responsibility Area (LRA), State Responsibility Area (SRA), or Federal Responsibility Area (FRA). LRAs are incorporated into cities, urban regions, and agricultural lands where the local government is responsible for wildfire protection. SRAs are those for which the State of California is financially responsible for the prevention and suppression of wildfires. FRAs are land for which neither the state nor the local government has legal responsibility for providing fire protection. For LRAs, only very high fire hazard severity zones are mapped.

The entirety of Los Altos is categorized as an LRA, where the local government is responsible for wildfire protection. There are no areas identified as a very high fire hazard severity zone within the City. However, the unincorporated areas of Santa Clara County to the southwest, which include Rancho San Antonio County Park and the Santa Cruz Mountains, are identified as SRAs with areas of high and very high fire hazard severity zones **(Figure 11)**. Therefore, the southwestern area of the City, which abuts these severity zones under state responsibility, is at risk for wildfires. Additionally, wildfires do not only occur in areas identified as fire hazard severity zones, and regional wildfires have the potential to have wide impacts across jurisdictions. Wildfires in the unincorporated areas to the southwest of the City would potentially impact the developed neighborhoods within Los Altos.

"The California Department of Forestry and Fire Protection (Cal Fire) prepares wildfire hazard severity maps, including mapping areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors."

Figure 11: Fire Hazard Severity Zone



Source: California Department of Forestry and Fire Protection; Esri; City of Los Altos.

2.4. Flooding

2.4.1. Major Sources of Flooding

Flood hazards fall into three categories: natural flooding, dam inundation, and mud and debris flows. Flooding occurs when a waterway (either natural or artificial drainage channel) receives more water than it is capable of conveying, causing the water level in the waterway to rise. Depending on how long these conditions last and the amount of runoff the waterway receives in proportion to its capacity, the rising water level may eventually overtop the waterway's banks or any other boundaries to the drainage area, resulting in flooding.

Floods often occur during heavy precipitation events, when the amount of rainwater exceeds the capacity of storm drains or flood control channels. Floods can also happen when infrastructure such as levees, dams, reservoirs, or culverts fail or when a section of drainage infrastructure fails, and water cannot be drained from an area quickly enough. These failures can be linked to precipitation events (e.g., when water erodes a levee, allowing water to escape and flood nearby areas) or can be a consequence of other emergency situations (e.g., a dam collapsing due to an earthquake).

FEMA maintains flood maps throughout the United States. FEMA defines flood or flooding as a general and temporary condition of partial or complete inundation of normally dry land areas from:

- The overflow of inland or tidal waters;
- The unusual and rapid accumulation or runoff of surface waters from any source; or,
- Mudslides (i.e., mudflows) caused by flooding, akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth material is carried by a current of water and deposited along the path of the current.

Floods can be caused and/or exacerbated by a number of factors, including the following:

- Weather and climate patterns.
- Hydrologic features such as reservoirs, ponds, lakes, rivers, etc.
- The ground's absorption capacity, which depends on the soil's composition and the area's bedrock. Less absorbent soil conditions, in addition to a lack of proper storm infrastructure, can result in flooding.
- The type and density of vegetation, which affect the flow of water.
- Patterns of land use/urbanization relate to the pervious and impervious ground.
- The level, age, and condition of flood management infrastructure.
- Large-scale wildfires dramatically alter the terrain and ground conditions. Vegetation absorbs rainfall, reducing runoff. However, wildfires leave the ground charred, barren, and unable to absorb water properly, creating conditions ripe for flash flooding and mudflow until vegetation is restored—up to five years after a wildfire.[6]

Los Altos is subject to periodic flood hazards associated with creek overflow, dam inundation, and potential mud and debris flows during rainstorms of a few hillsides within the planning area. The Los Altos planning area

[6] Federal Emergency Management Agency, *Flood Risk Increases After Fires Are Out – Buy Flood Insurance Now*, accessed May 20, 2024, https://www.fema.gov/fact-sheet/4562/flood-risk-increases-after-fires-are-out-buy-flood-insurance-now.

contains both 100- and 500-year floodplain areas as shown in **Figure 12**.

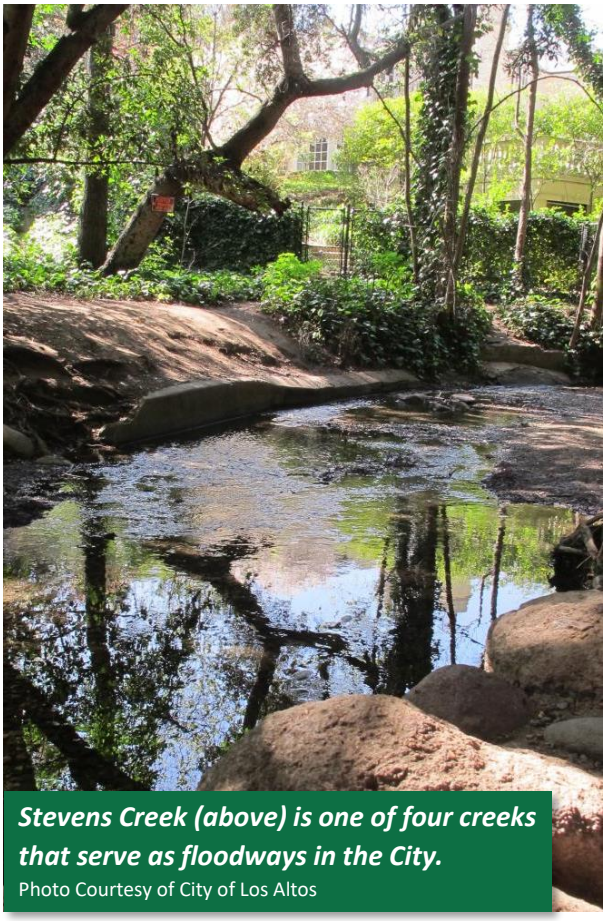
Flood hazard areas identified on the Flood Insurance Rate Map (FIRM) are identified as Special Flood Hazard Areas (SFHA). SFHAs are defined as the area that will be inundated by the flood event having a 1 percent chance of being equaled or exceeded in any given year. The 1 percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. Moderate flood hazard areas, labeled Zone B or Zone X (shaded), are also shown on the FIRM and are the areas between the limits of the base flood and the 0.2 percent annual chance (or 500-year) flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2 percent annual chance of flood, are labeled Zone C or Zone X (unshaded). There are Zone A, AO, AH, and AE flood risk areas along the creeks of the City.

A Zone (A): These are areas with a 1% annual chance of flooding (also known as the 100-year flood) and a 26% chance of flooding over the life of a 30-year mortgage. These are characterized as having highest risk for flooding, but no detailed hydraulic analysis has been performed. Flood insurance is mandatory for properties with federally-backed mortgages.

AO Zone (AO): These are areas with a 1% annual chance of shallow flooding, usually in the form of sheet flow, with an average depth of 1 to 3 feet. Flood depths and velocities are determined for these areas, and they can result from ponding or local drainage issues. Flood insurance is mandatory for properties with federally-backed mortgages.

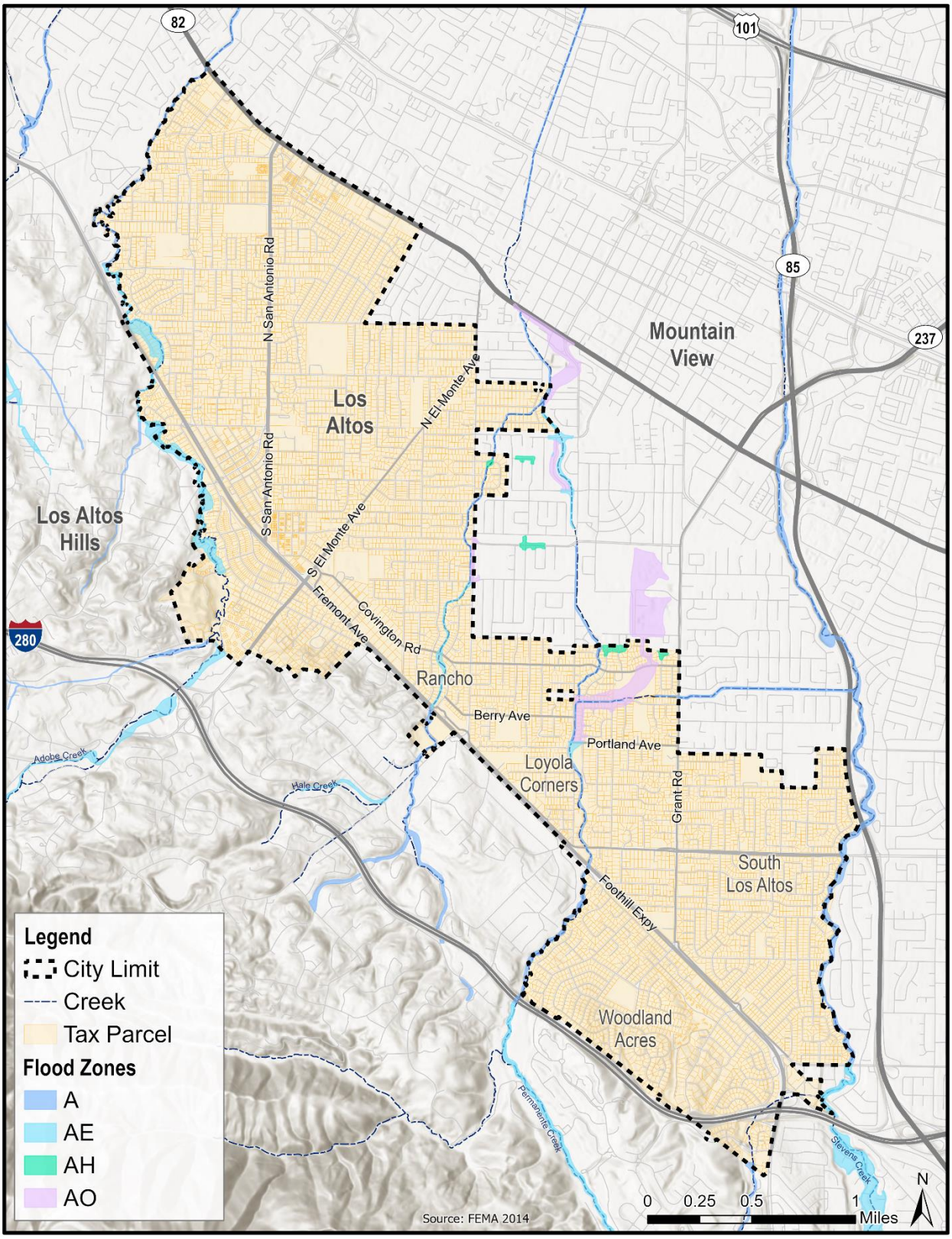
AE Zone (AE): These are areas with a 1% annual chance of flooding where Base Flood Elevations (BFEs) are determined. Detailed hydraulic analysis has been performed. The floodplain has been mapped with more precision, and BFEs are provided. Flood insurance is mandatory for properties with federally-backed mortgages.

AH Zone (AH): Areas with a 1% annual chance of shallow flooding, usually in the form of ponding, with average depths between 1 and 3 feet. Like Zone AO, this zone experiences shallow flooding, but the primary cause is ponding rather than sheet flow. Detailed hydraulic analyses have determined flood depths. BEEs are provided for these areas, indicating the expected water surface elevation during a base flood event. Flood insurance is mandatory for properties with federally-backed mortgages



Stevens Creek (above) is one of four creeks that serve as floodways in the City.
Photo Courtesy of City of Los Altos

Figure 12: FEMA Flood Zones



Source: Federal Emergency Management Agency; Esri; City of Los Altos.

2.4.2. Natural Flooding

Natural flooding occurs when major rainstorms cause stream overflows. Surface waters within Los Altos are primarily creeks that originate in the foothills and meander toward the low-lying areas in the northeast. Creeks in the area include Adobe Creek, Hale Creek, Permanente Creek, and Stevens Creek; flooding would potentially occur in these areas in the event of significant storm events. Portions of these four creeks have been channelized to increase the capacity of the creeks to reduce flooding and to permit development of the floodplain. The majority of mapped flood zones within the City are confined to these flood channels. Further channelization is not recommended for any of the creeks in Los Altos because of the conflict with preservation of natural resources.

According to the FEMA flood maps, Adobe Creek and Permanente Creek are the most flood-prone of Los Altos' creeks. The flood zones in the area are categorized as a FEMA 100-year flood hazard zone with only a 1 percent annual chance of flooding.

2.4.3. Dam Inundation

Dam failure is the uncontrolled release of impounded water from behind a dam. Flooding, earthquakes, blockages, landslides, lack of maintenance, improper operation, poor construction, vandalism, and terrorism can all cause dam infrastructure to fail. Dam failure causes downstream flooding of varying velocities that can result in loss of life and property.

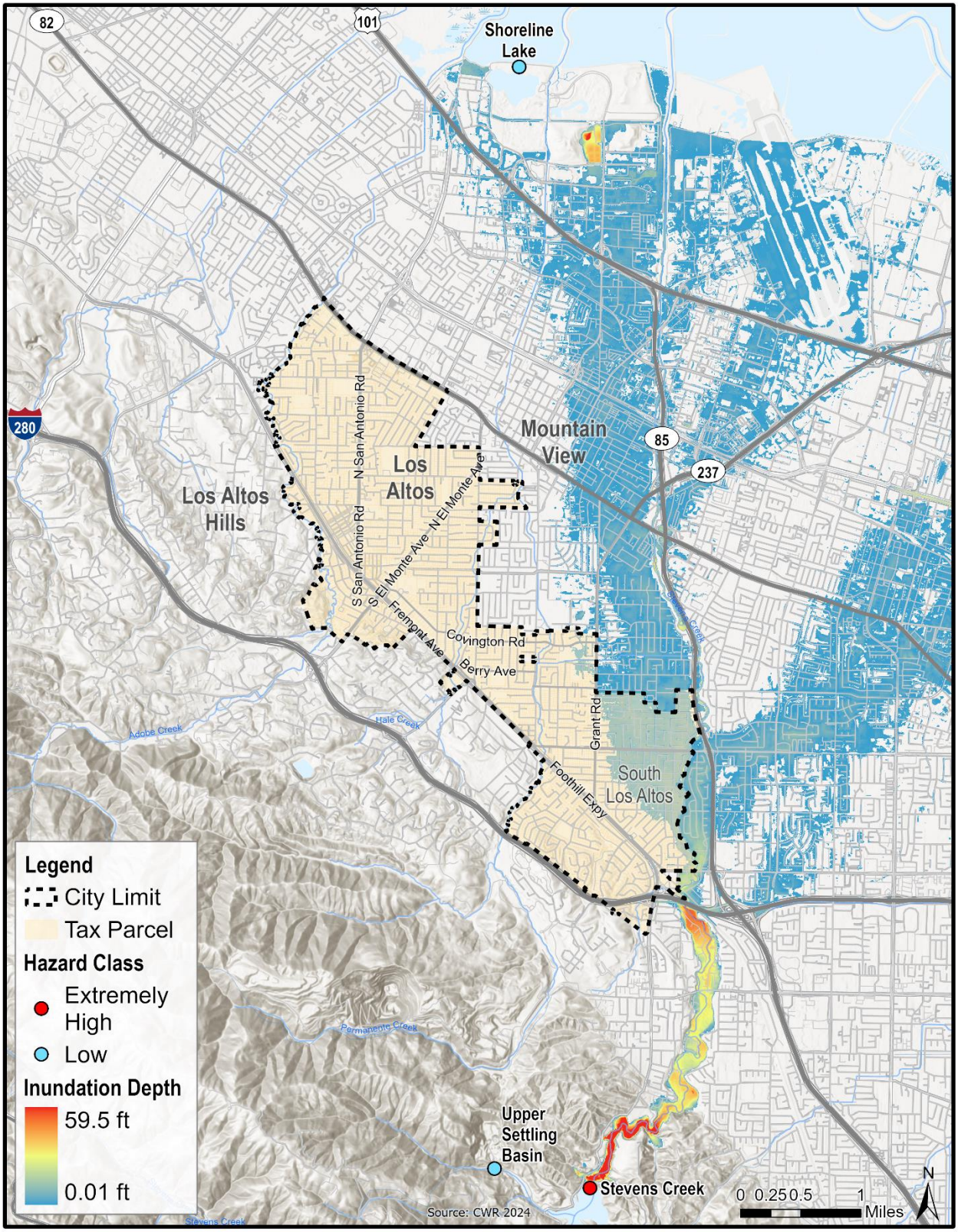
Dam inundation could occur with the failure of the Stevens Creek Dam. According to the California Department of Water Resources, Division of Safety of Dams (DSOD), the downstream hazard from Stevens Creek Dam is classified as extremely high.[7] The downstream hazard is based solely on potential downstream impacts to life and property should a dam fail when operating with a full reservoir, and is expected to cause considerable loss of human life or result in an inundation area with a population of 1,000 or more. Built in 1935, the dam is owned and operated by Santa Clara Valley Water District and is in fair condition based on the DSOD report from September 2022.

Figure 13 depicts areas subject to flood inundation in the event of failure of the Stevens Creek Dam. Dams typically fail due to overtopping by reservoir water during heavy rainfall episodes, structural damage, and earthquake-related hazards such as landsliding, ground shaking, and seiches. A dam failure event at Stevens Creek Dam would cause flooding along Stevens Creek at the southeastern border of the City. Depending on the severity of the event, portions of south Los Altos could be inundated by water released from the dam.

California Government Code Section 8589.5 requires the City to have emergency procedures in place for the evacuation and control of populated areas within the limits of inundation below dams. In addition, real estate disclosure upon sale or transfer of property in the inundation area is required under Assembly Bill 1195 Chapter 65 passed in June 1998. Los Altos participates in the National Flood Insurance Program which provides federal flood insurance and federally financed loans for property owners in flood-prone areas.

[7] California Department of Water Resources, *Dams Within Jurisdiction of the State of California Listed*, accessed June 1, 2024, https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Division-of-Safety-of-Dams/Files/Publications/Dams-Within-Jurisdiction-of-the-State-of-California-Listed-Alphabetically-by-Name-September-2022.pdf.

Figure 13: Reservoir Inundation



Source: California Department of Water Resources-Division of Safety of Dams; Esri; City of Los Altos.

2.4.4. Mud and Debris Flows

Mud and debris flows are defined as a river of rock, earth, mud, and other debris, including saturated vegetation. While landslides can occur without the presence of soil (such as a rock landslide), debris flows consist of material that contains at least 50 percent sand, silt, and clay-sized particles. The high percentage of water gives the debris flow a rapid rate of movement down a slope, posing extremely dangerous conditions to people and property. Flows triggered by earthquakes or heavy rainfall can occur on gentle slopes and can move rapidly for large distances.

Mud and debris flows originate in hillside areas having deep topsoil with poor drainage. The majority of the Los Altos planning area is relatively flat terrain that is not subject to mud and debris flows. The rolling terrain in the southwest portion of the planning area contains deep soils consisting of silt, clay, sand, and gravel deposits. While there are no recent examples of mud or debris flows in the planning area, development in the southwest slopes should be carefully reviewed for mitigation of mud and debris flow risks. The City will reduce the potential for flood hazards by implementing the adopted flood hazard area regulations for designated floodways, mudflow-prone areas, and flood-related erosion prone areas.

2.4.5. Drainage System

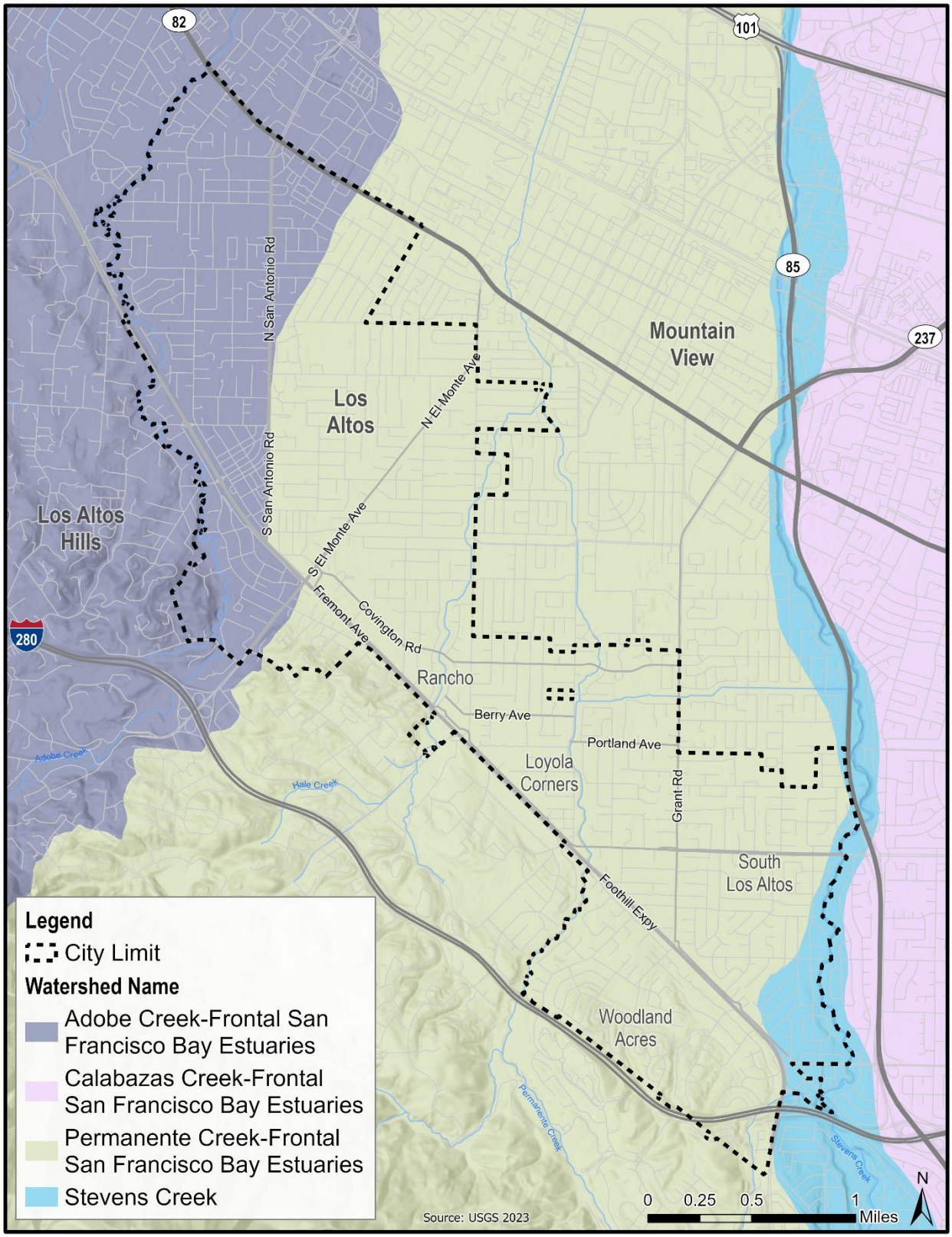
A watershed, also known as a drainage basin or catchment area, is an area of land where all the water, including rainfall and runoff, drains into a common outlet, such as a river, lake, or ocean. There are various watersheds within Los Altos that originate in the mountains and drain toward the low-lying areas of the Santa Clara Valley and San Francisco Bay in the northeast. Watersheds in the area include Adobe Creek-Frontal San Francisco Bay Estuaries, Permanente Creek-Frontal San Francisco Bay Estuaries, and Stevens Creek. These watersheds are essential for managing stormwater and maintaining water quality in the City of Los Altos. To further support flood control efforts, portions of these creeks within Los Altos have been channelized to increase capacity and reduce flooding.

Land development can have a significant impact on flooding as impervious surfaces increase the amount of overland flow and decrease the amount of water that is absorbed by the natural landscape. To preserve the natural quality of riparian zones, it is important to prevent development that increases runoff that would exceed the capacity of local creeks. To reduce pollutants in urban runoff, the City requires new development projects and substantial rehabilitation projects to incorporate best management practices pursuant to the National Pollutant Discharge Elimination System Permit and Santa Clara County Drainage Manual 2007.[8]

Additionally, the City of Los Altos served on the Santa Clara Valley Water Resources Protection Collaborative (Water Collaborative), established in 2002. In 2006, the Water Collaborative developed and adopted the *Guidelines and Standards for Land Use Near Streams: A Manual of Tools, Standards, and Procedures to Protect Streams and Streamside Resources in Santa Clara County*. The City adopted these guidelines in 2007 as Resolution No. 07-03 and implements the policies and standards for development to the extent feasible and appropriate. The City also protects watersheds and drainages through storm drain maintenance and erosion control.

[8] Santa Clara County, *Drainage Manual*, 2007, https://stgenpln.blob.core.windows.net/document/DrainageManual_Final.pdf.

Figure 14: Watersheds



Source: US Geological Survey-National Hydrography Dataset; Esri; City of Los Altos.

2.5. Climate Change and Resilience

2.5.1. Climate Change

Climate change is generally defined as the long-term shift in global or regional temperature and weather patterns. Climate change may be a natural global phenomenon to some extent, but typically the observed change in global and regional climate patterns is attributed to increased levels of carbon dioxide in the atmosphere caused by the burning of fossil fuels.

Climate change can have widespread effects on temperature and weather patterns, creating conditions that may make storms more frequent or more intense, resulting in more intense rainfall and flooding. In many areas, climate change may increase the frequency and duration of droughts and create conditions that intensify wildfire vulnerability. Climate change has the potential to exacerbate most natural and environmental hazards, except seismic hazards, which are not linked to climate patterns. Additionally, climate change is not linked to human-caused hazards such as hazardous materials release.

The Cal-Adapt tool provides local climate projections for temperature, precipitation, and wildfire snapshots for cities and counties in California.

Table 2 shows the changes specific to Los Altos. As shown, the number of extreme heat days, increase in annual maximum temperatures, and decrease in annual precipitation may be a cause of concern.

Table 2: Local Climate Change Snapshot

Climate Change Factors Impacting the City	Observed (1961-1990)	Mid-Century (2035-2064)	
		Medium Emissions [A]	High Emissions [A]
Annual Average Maximum Temperature (°F)	68.9–69.4	70.8–73.6	71.3–74.7
Extreme Heat Days (days)[B]	3–6	7–17	8–20
Annual Average Precipitation (inches)[C]	1.3–1.6	1.3–2.0	1.3–1.75
Annual Average Area Burned (acres)[D]	56.2–63.6	37.1–46.8	42.6–51.4

A. The Medium Emissions Scenario represents a mitigation scenario where global carbon dioxide (CO_2) emissions peak by 2040 and then decline. Statewide, the temperature is projected to increase by 2°C–4°C for this scenario by the end of this century. The High Emissions Scenario represents a scenario where CO_2 emissions continue to rise throughout the twenty-first century. Statewide, the temperature is projected to increase by 4°C–7°C by the end of this century.
B. Number of days in a year when the daily maximum temperature is above a threshold temperature of 103.9°F (98th percentile).
C. Summary statistics are calculated using values between 1961 and 1990 from Modeled Historical data (CanESM2, CNRM-CM5, HadGEM2-ES, MIROC5 models).
D. While Los Altos doesn't have any history of areas that were burned, the data presented here are aggregated over all Localized Constructed Analogs (LOCA) grid cells that intersect Los Altos boundary and hence can contain areas outside the jurisdictional boundary. LOCA grid cells are downscaled to a 1/16 degree latitude/longitude grid using the LOCA statistical downscaling methodology.[9]

Source: Cal-Adapt, Local Climate Change Snapshot, cal-adapt.org.

[9] Pierce, D. W., D. R. Cayan, and B. L. Thrasher, 2014, "Statistical Downscaling Using Localized Constructed Analogs (LOCA)," *Journal of Hydrometeorology*, 15, 2558-2585.

2.5.2. Extreme Heat

An extreme heat event occurs between April and October when the temperature is at or above the 98th percentile for historical daily maximum temperatures in Los Altos. An increase in extreme heat waves can increase the risk of heat stroke or dehydration. Extreme heat may strain water, power, and transportation systems, as well as have negative effects on infrastructure such as roadways and sidewalks, leading to deterioration and buckling. Additionally, the increased use of air conditioners can put strain on electrical systems and lead to GHG emissions, which affect lung function over time. According to the California Access and Functional Needs map, the closest cooling and warming centers for the residents of Los Altos are the Los Altos Library, Woodland Library and Los Altos Community Center.[10]

2.5.3. Sea Level Rise

According to the National Oceanic and Atmospheric Administration, sea level rise at the regional level can deviate significantly from the global average rate.[11] Thus, effects are unique to specific coastal jurisdictions due to variations in topography and geography. Sea level rise projections and modeling are depicted in **Figure 15** and rely on the best available science as evaluated by the California Coastal Commission's 2018 Sea Level Rise Policy Guidance and are supplemented by National Oceanic and Atmospheric Administration's 2022 Sea Level Rise Technical Report. As shown in **Figure 15**, projected sea level rise would not directly impact the City of Los Altos. However, sea level rise has the potential to impact regional infrastructure that services the City of Los Altos. For example, the Regional Water Quality Control Plant is located in the sea level rise hazard zone within the City of Palo Alto. The Regional Water Quality Control Plant treats wastewater for the City of Los Altos and would be impacted by sea level rise. Other infrastructure systems outside of the City may be impacted by sea level rise which would have secondary impacts to Los Altos. Inundation of pipelines, power lines, sewage systems and transportation infrastructure would potentially cause secondary impacts to the City of Los Altos including contamination of water supplies, loss of power, and interruptions to communication and transportation networks. Sea level rise in surrounding communities may result in public health and safety issues, affecting emergency response and overall community resilience throughout the area.

2.5.4. Resilience

Resilience in the face of climate change refers to the actions that can be taken to reduce the drivers of climate change and actions to mitigate the effects of climate change. Strategies such as reducing greenhouse gas emissions, sustainable land uses, and policy change can mitigate the drivers of climate change. However, these strategies alone will not prevent the climate impacts already set in motion by current greenhouse gas levels. Climate change impacts will play out over an extended period. Because climate change is a long-term phenomenon, it is important to adequately plan for the impacts of climate change.

Climate change is anticipated to cause more frequent and/or more severe storms. To increase resilience to climate change, communities can strengthen infrastructure to withstand extreme weather and storms. Bolstering drainage capacities and flood control

[10] AFN Web Map, accessed May 20, 2024, https://www.caloes.ca.gov/office-of-the-director/policy-administration/access-functional-needs/oafn-web-map/.

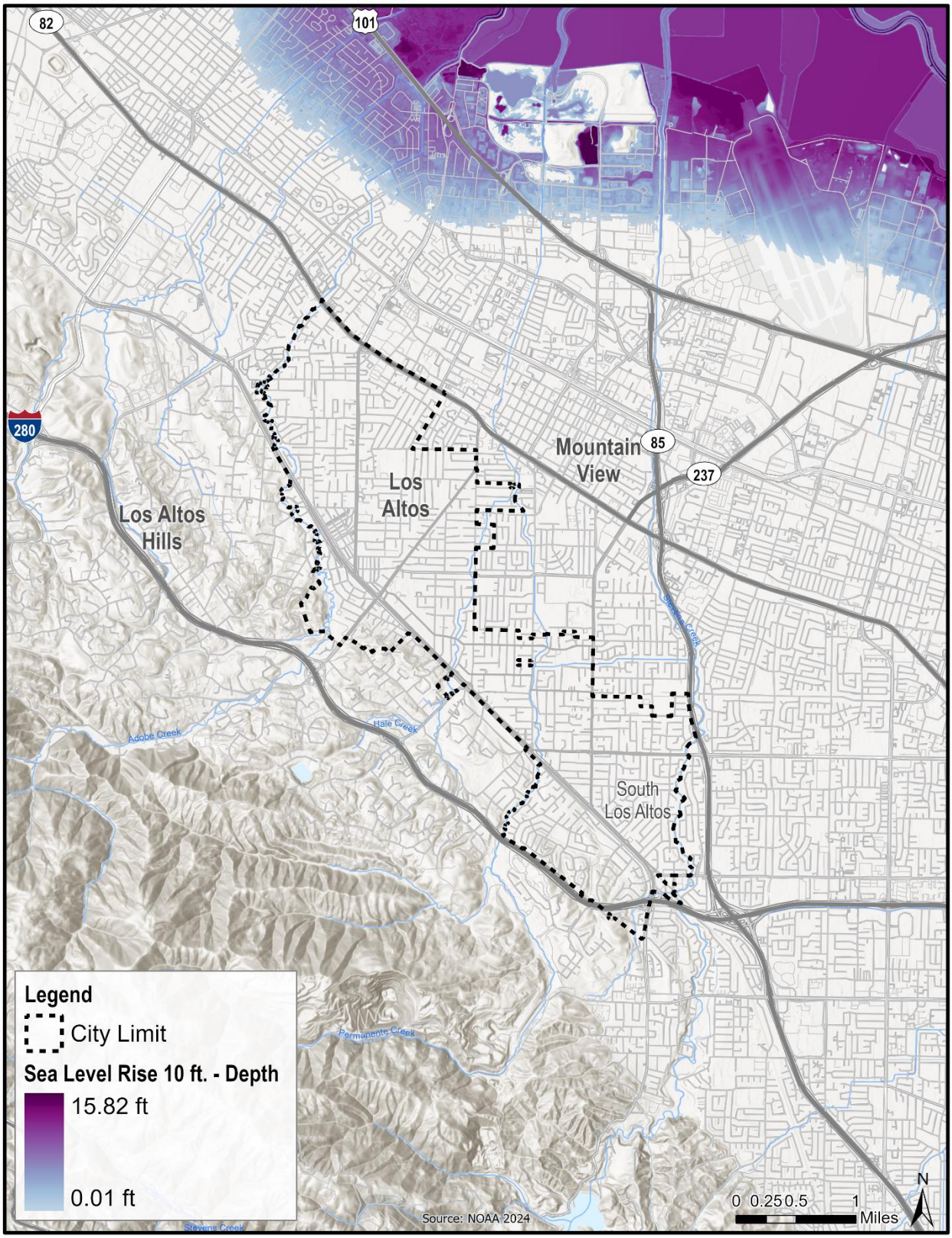
[11] National Ocean Service/National Oceanic and Atmospheric Administration, *2022 Sea Level Rise Technical Report,* https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report-sections.html.

measures can mitigate the effects of intense storms. Strengthening and modernizing utility infrastructure can mitigate the secondary impacts of storms such as service interruptions, contaminated water supplies, and power outages. With more frequent or intense storm events, it is likely that flooding may have a more significant effect on the City. Additionally, regional assets outside of the City such as utilities and infrastructure are at risk. Flooding or damage to regional infrastructure and facilities including the Palo Alto Regional Water Quality Control Plant, would have impacts to the City of Los Altos. The Regional Water Quality Control Plant treats wastewater for Los Altos and is located in the anticipated sea level rise zone or San Francisco Bay; flooding of this facility would disrupt service to Los Altos and may have regional impacts to water quality. Increasing the capacity of the City's drainage infrastructure would make Los Altos more resilient to weather events linked to climate change. Coordinating regional resilience projects to protect critical infrastructure and bolster stormwater management inside and outside of the City would protect the larger area surrounding Los Altos.

Climate change resiliency also includes measures to reduce vulnerability to droughts and wildfires. This may include water conservation and water supply management efforts to ensure the City is prepared in the event of a long-term drought. Diversifying the City's water supply by introducing and maintaining water sources that are less susceptible to drought or are more sustainable also accomplishes this goal. Additionally, as wildfire becomes more frequent or intense with climate change, actions to mitigate the City's vulnerability may be warranted. Although the City is not generally prone to wildfire hazards, regional wildfires may become an increasing threat with climate change.

Resilient Los Altos (RLA) is dedicated to strengthening neighborhoods in Los Altos by providing residents with knowledge, training and resources needed to prepare for, respond to and recover from emergencies.
Photo Courtesy of Resilient Los Altos

Figure 15: Sea Level Rise



Source: National Oceanic and Atmospheric Administration; Esri; City of Los Altos.

2.5.5. Vulnerability Assessment Summary

The Vulnerability Assessment for City of Los Altos is supported by two documents: the Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) and the Los Altos Climate Action and Adaptation Plan (CAAP). The goal of the Vulnerability Assessment is to understand how and to what extent the changing climate will impact the community—assets, people, and the economy.

According to the MJHMP, Los Altos faces several vulnerabilities related to climate hazards. These include extreme heat, drought, and wildfires, which can impact community health, air quality, water availability, and biodiversity. Additionally, storms with intense precipitation, flooding, and high winds pose a growing risk. Vulnerabilities also extend to potential flooding, property damage, and loss of life downstream of Stevens Creek Dam. The City's primary wildfire vulnerability is poor air quality due to neighboring wildfire events, which affect vulnerable populations. The City does not have a mandatory earthquake retrofit policy in place. In general, buildings with a higher collapse potential include residential and commercial buildings constructed prior to 1990 that have not had seismic retrofits. Areas near creeks are also at risk due to higher liquefaction potential. Below is the vulnerability summary from the MJHMP.

The CAAP provides a risk probability score for each of the hazards. The CAAP Task Force is a group of City staff and Environmental Commission members who guided the development of the CAAP. Task force members ranked their concerns on a scale of 1 to 3 for primary and secondary climate hazards. Primary climate hazards are phenomena that are climate variables. Temperature and precipitation define climate. Secondary climate hazards are hazards resulting from changes in primary climate hazards in relation to community sectors like the natural environment, the economy, and the public. In addition to identifying risks, the CAAP outlines climate impacts, mitigation strategies, priority actions, and implementation measures to enhance the city's resilience against climate change.

Table 3: Hazard Risk Index

Hazard	Probability	Life Impact	Property Impact	Percentage of Area Impacted	Maximum Probable Extent
Drought	Highly Likely	Limited	Limited	Extensive	Moderate
Earthquake	Likely	Critical	Critical	Significant	Major
Heavy Rain / Atmospheric River	Highly Likely	Critical	Limited	Significant	Moderate
Extreme Heat	Likely	Minor	Minor	Significant	Moderate
High Wind	Occasional	Minor	Limited	Minimal	Moderate
Climate change	Highly Likely	Minor	Critical	Significant	Major
Wildfire/smoke/air quality	Highly Likely	Critical	Limited	Minimal	Moderate
Dam and levee failure	Unlikely	Critical	Limited	Negligible	Weak
Flood	Occasional	Minor	Limited	Minimal	Moderate
Landslide/mass movement	Unlikely	Minor	Minor	Negligible	Weak

Source: Santa Clara County, Multi-Jurisdictional Hazard Mitigation Plan.

Table 4: CAAP Climate Hazards Ranking

Primary Climate Hazards	Score
Temperature increase	2.4
Precipitation changes	1.8
Sea level rise	1.3
Secondary Climate Hazards	**Score**
Drought	2.8
Extreme heat/heat waves	2.4
Wildfire	2.4
Air pollution	2.4
Flooding (riverine, areal)	2.3
Urban heat island	1.9
Flooding (coastal)	1.4
Landslide	1.3

Source: Los Altos Climate Action and Adaptation Plan.

2.6. Drought

Drought is defined as an extremely dry climatic period where the available water falls below a statistical average for a region. Drought is also defined by factors other than rainfall, including vegetation conditions, agricultural productivity, soil moisture, water levels in reservoirs, and streamflow. Droughts or water shortages are a gradual phenomenon, occurring over multi-year periods and increasing with the length of dry conditions. When precipitation is less than normal for a period of time, the flow of streams and rivers declines, water levels in lakes and reservoirs fall, and the depth to water in wells increases. If dry weather persists and water supply problems develop, the dry period can become a drought.

The term "drought" can have different meanings depending on how a water deficiency affects day-to-day activities. Drought is a complex natural hazard, which is reflected in the following four definitions commonly used to describe it[12]:

- Agricultural – Agricultural drought is defined principally in terms of naturally occurring soil moisture deficiencies relative to water demands of plant life, usually arid crops.
- Hydrological – Hydrological drought is related to the effects of precipitation shortfalls on stream flows and reservoir, lake, and groundwater levels.
- Meteorological – Meteorological drought is defined solely on the degree of dryness, expressed as a departure of actual precipitation from an expected average or normal amount based on monthly, seasonal, or annual time scales.
- Regulatory (or socioeconomic) – Regulatory drought can occur when the availability of water is reduced due to the imposition of regulatory restrictions on the diversion and export of water out of a watershed to another area.

Although the climate is a primary contributor to hydrological drought, other factors such as changes in land use (i.e., deforestation), land degradation, and the construction of dams can affect the hydrological characteristics of a region. Because regions are geographically interconnected by natural systems, the impact of meteorological drought may extend well beyond the borders of

[12] Types of Drought, Accessed June 1, 2024, https://drought.unl.edu/Education/DroughtIn-depth/TypesofDrought.aspx

the precipitation-deficient area. Changes in land use upstream may alter hydrologic characteristics such as infiltration and runoff rates, resulting in more variable streamflow and a higher incidence of hydrologic drought downstream. Land use change is one way that human actions can alter the frequency of water shortage even when no change in precipitation has been observed.

Droughts cause public health and safety impacts, as well as economic and environmental impacts. Public health and safety impacts are primarily associated with catastrophic wildfire risks and drinking water shortage risks for small water systems in rural areas and private residential wells. Examples of other impacts include costs to homeowners due to loss of residential landscaping; degradation of urban environments due to loss of landscaping; agricultural land fallowing and associated job loss; degradation of fishery habitat; and tree mortality with damage to forest ecosystems.

Drought conditions can also result in damage to older infrastructure that is located within dry soils with the potential to leak or break. Dead or dying vegetation poses a risk of falling and damaging structures and infrastructure systems.

2.6.1. Drought Severity

Drought severity depends on numerous factors, including duration, intensity, and geographic extent, as well as regional water supply demands by humans and vegetation. The severity of drought can be aggravated by other climatic factors, such as prolonged high winds and low relative humidity. The magnitude of drought is usually measured in time and the severity of the hydrologic deficit.

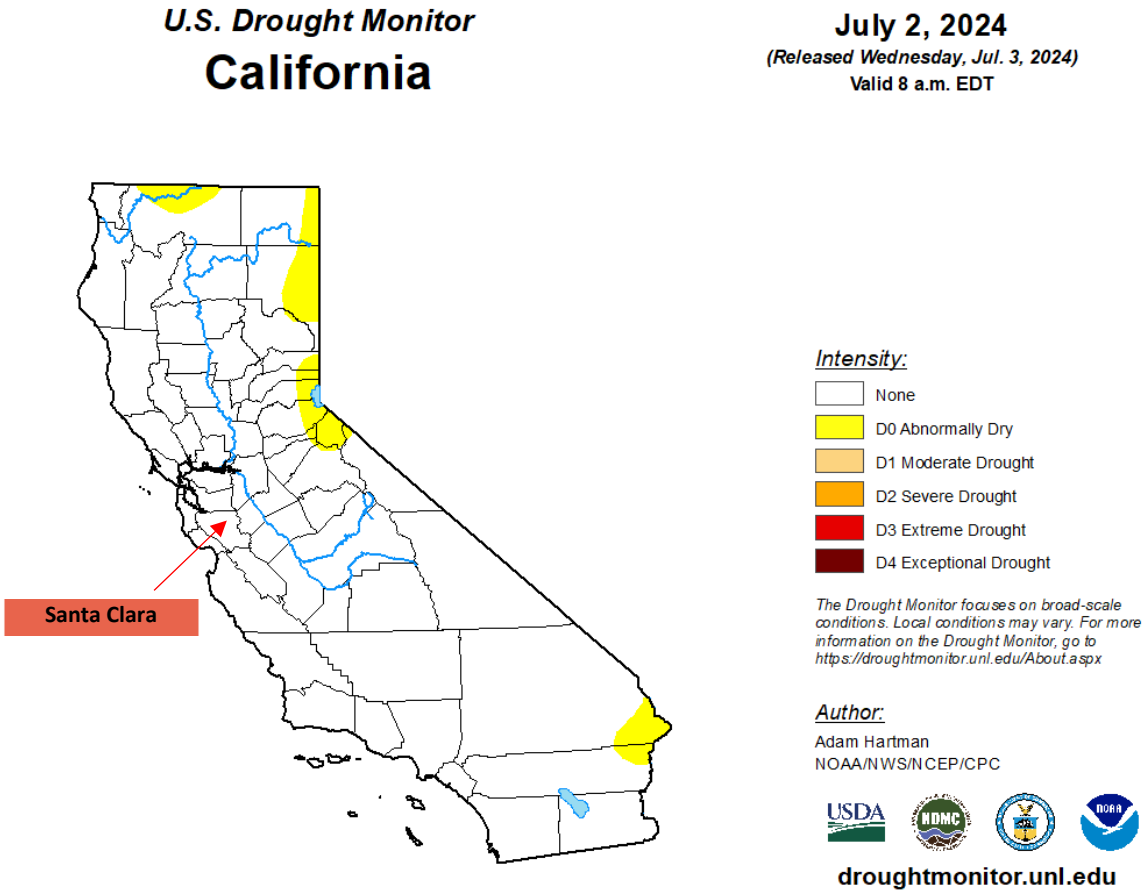
The United States Drought Monitor is a map released weekly that indicates the portions of the United States that are experiencing drought and the severity of the drought based on five classifications: abnormally dry (D0), showing areas that may be going into or are coming out of drought, and four levels of drought: moderate (D1), severe (D2), extreme (D3), and exceptional (D4) (refer to **Table 5**).

The Drought Monitor is not a forecast but looks backward, providing a weekly assessment of drought conditions based on how much precipitation did or did not fall. Because drought is a slow-moving hazard, it may take more than one good rainfall to end a drought, especially if an area has been in drought for a long time.

Table 5: Drought Severity Classification

Category	Description	Possible Impacts
D0	Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered.
D1	Moderate Drought	Some damage to crops, pastures, streams, reservoirs, or wells is low. Some water shortages are developing or imminent; voluntary water-use restrictions are requested.
D2	Severe Drought	Crop or pasture losses likely; water shortages common; water restrictions imposed.
D3	Extreme Drought	Major crop/pasture losses; widespread water shortages or restrictions.
D4	Exceptional Drought	Exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells create water emergencies.

Source: US Drought Monitor.



2.6.2. California Drought History

Drought has affected virtually every county in California, and California has experienced numerous severe droughts over the past century. FEMA declared one drought emergency for California in January 1977, and other drought emergency declarations have been declared by the state.[13] According to the *2018 State Hazard Mitigation Plan*, from 1972 to 2016, there were 15 drought state emergency proclamations in California.[14]

The most severe drought on record began in 2012 and continued through 2017. On January 17, 2014, the governor of California declared a state drought emergency, and on April 1, 2015, the governor announced the first-ever mandatory 25 percent statewide water use reduction and a series of actions to help save water, increase enforcement to prevent wasteful water use, streamline the state's drought response, and invest in new technologies that would make California more drought resilient. At the time of the announcement, the volume of Sierra Nevada snowpack was approximately 14 percent of normal. Despite multiple storms in February 2014, drought conditions persisted. By the end

[13] Federal Emergency Management Agency, Disaster Declarations, accessed May 21, 2024, https://www.fema.gov/disaster/3023.

[14] California Governor's Office of Emergency Services, *2018 California State Hazard Mitigation Plan*, September 2018, https://www.caloes.ca.gov/wp-content/uploads/002-2018-SHMP_FINAL_ENTIRE-PLAN.pdf.

of May 2014, all of California was in a condition of "extreme" or "exceptional" drought. At the same time, the volume of the Sierra Nevada snowpack had decreased to less than 10 percent of normal, and water stored in Lake Oroville, the major reservoir for the State Water Project, was at 58 percent of normal.[15] On April 7, 2017, the governor issued an executive order ending the drought emergency in most of California, including Santa Clara County.

Drought conditions returned in 2021 and throughout 2022. Winter storms at the end of 2022 and into 2023 largely ended drought conditions throughout California. By the end of February 2023, the entirety of California was no longer experiencing drought according to the United States Drought Monitor.

Table *6*: Historical Droughts

Date	Area Affected	Notes
1827–1916	Statewide	Multiyear: 1827–29, 1843–44, 1856–57, 1863–64 (particularly extreme), 1887–88, 1897–1900, 1912–13.
1917–21	Statewide, except for the central Sierra Nevada and north coast	Simultaneous in affected areas, 1919–20. Most extreme in the north.
1922–26	Statewide, except for the central Sierra Nevada	Simultaneously in effect for the entire state only during 1924, which was particularly severe.
1928–37	Statewide	Simultaneously in effect for the entire state, 1929–34. Longest in the state's history.
1943–51	Statewide	Simultaneously in effect for the entire state, 1947–49. Most extreme in the south.
1959–62	Statewide	Most extreme in the Sierra Nevada and the central coast.
1976–77	Statewide, except for southwestern deserts	Driest 2 years in the state's history. Most severe in the northern two-thirds of the state.
1987–92	Statewide	Moderate. Most extreme in the northern Sierra Nevada.
2000–02	Statewide	Most severe in Southern California.
2007–09	Statewide	Twelfth driest 3-year period on record at the time. Most severe in western San Joaquin Valley.
2012–17	Statewide	Most severe California drought on record.
2021–2023	Statewide	2021 became the second driest year on record. The drought emergency expanded statewide as of October 2021.

Sources: Paulson, R. W., E. B. Chase, R. S. Roberts, and D. W. Moody, Compilers, National Water Summary 1988-89: Hydrologic Events and Floods and Droughts: US Geological Survey Water-Supply Paper; California Department of Water Resources, *California's Most Significant Droughts: Comparing Historical and Recent Conditions*.

2.6.3. Water Supply

Los Altos receives all of its water from the California Water Service Company (Cal Water), which operates local wells, but imports the majority of its domestic water. Cal Water operates 25 districts. The Los Altos Suburban District was formed in 1931 with the purchase of the Los Altos Water Company. The district's Service Area Map is shown in **Figure 16**. With water issues becoming more important throughout California, Los Altos

[15] California Department of Water Resources, *California's Most Significant Droughts: Comparing Historical and Recent Conditions*, 2015.

needs to ensure that its residents and businesses have access to adequate supplies of high-quality water now and in the future. Water conservation is critical to achieving this objective since conservation reduces the overall need for water by the community.

According to the 2020 Urban Water Management Plan (UWMP) - Los Altos Suburban District,[16] "California Water Service Company (Cal Water) currently purchases treated surface water from the Santa Clara Valley Water District (Valley Water). In addition to its local surface water supplies, Valley Water imports surface water to the region through the South Bay Aqueduct of the State Water Project (SWP) and the San Felipe Division of the federal Central Valley Project (CVP). Valley Water operates three drinking water treatment plants (WTPs) (i.e., Penitencia WTP, Rinconada WTP, and Santa Teresa WTP) that treat its combined surface water supplies. Valley Water disinfects the water using a blend of chlorine and ammonia (chloramines)." Cal Water anticipates a less than 2.5 percent increase in water demand under normal conditions for the Los Altos Suburban District from 2025 through 2035;[17] Cal Water and the Santa Clara Valley Water District have not identified any substantial concerns with water resources or meeting water demand into the future.

The Cal Water UWMP provides current and future demand projects for both potable and non-potable uses of water for the entire service area. **Table 7** provides the breakdown of water demand in Cal Water's Los Altos Suburban District. The table also includes the calculations based on conservation strategies discussed in the district's 2015 Conservation Master Plan as well as projected housing demand.

Cal Water has analyzed the effect of climate and weather variability on water demand and has found that, for plausible emission scenarios and corresponding temperature increases, climate change may, on average, increase future district demands by 2 to 3 percent compared to current climate conditions. The 2020 Urban Water Management Plan - Los Altos Suburban District concludes that "Cal Water's supply portfolio for Los Altos Suburban District is expected to be able to serve those demands in all year types through 2045." Although water supply and demand are not anticipated issues for Cal Water and the Los Altos Suburban District, there are areas where water infrastructure does not meet California Fire Code including water flow and pressure requirements for firefighting purposes. The Cal Water system has many areas of gridded four-inch water mains that are substandard and have challenges meeting fire flow requirement.

Table 7: Water Supply Demand

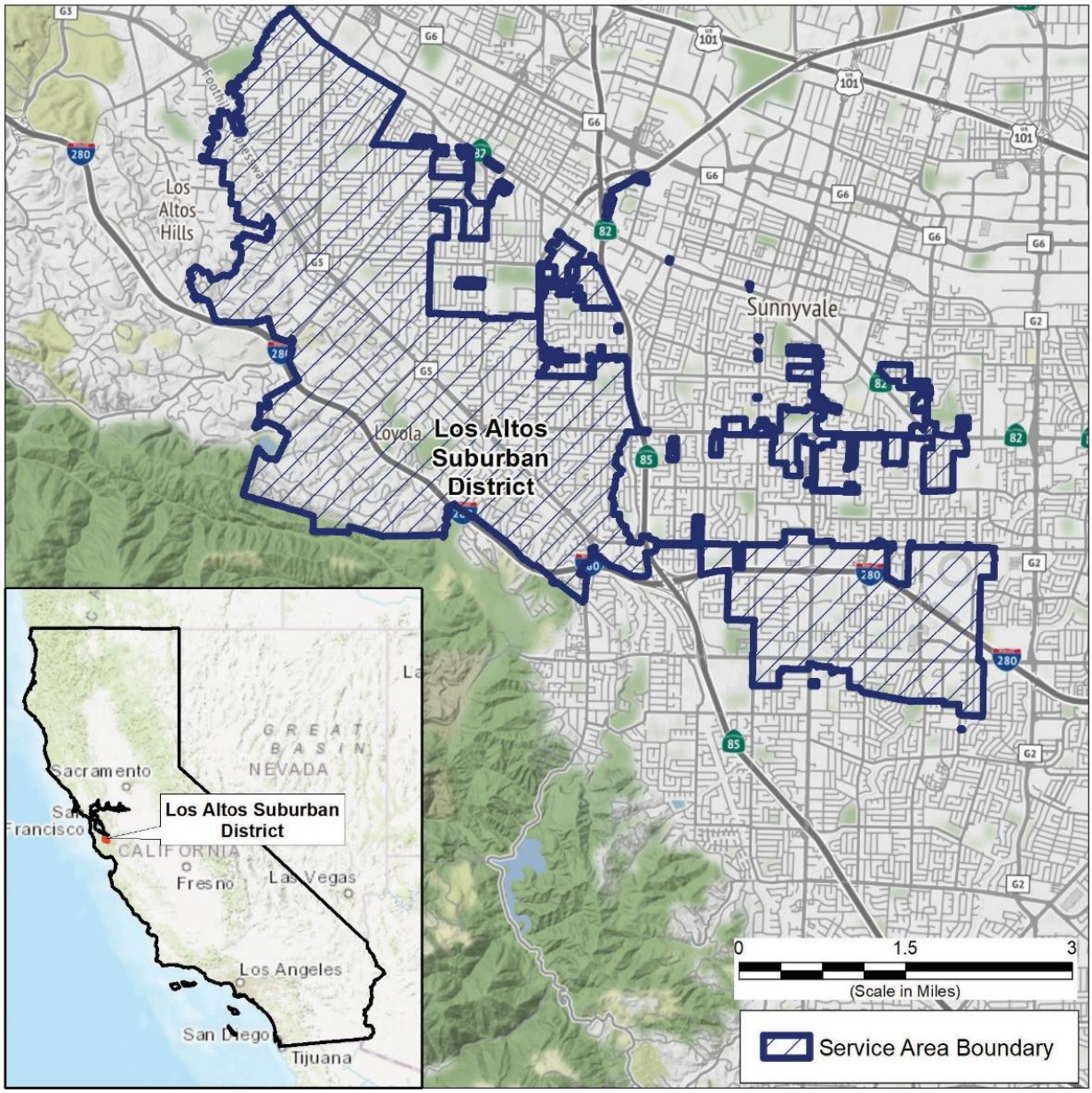
Year	2017	2018	2019	2020	2035 projected	2045 projected
Potable and Non-Potable Water (in acre feet)	11,656	12,438	11,982	13,023	13,324	14,097

Source: California Water Service, 2020 Urban Water Management Plan - Los Altos Suburban District.

[16] California Water Service, *2020 Urban Water Management Plan - Los Altos Suburban District*, 2021, https://www.calwater.com/conservation/uwmp2020/.

[17] California Water Service, *2020 Urban Water Management Plan - Los Altos Suburban District*, 2021, https://www.calwater.com/conservation/uwmp2020/.

Figure 16: California American Water Service Area Map



Source: California Water Service, 2020 Urban Water Management Plan- Los Altos Suburban District.

2.7. Hazardous Materials

A "hazardous material" is defined by California Health and Safety Code Section 25501 as "any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment." Improper handling of hazardous materials or waste may result in significant impacts on human health and the environment. Hazardous materials can be in the form of explosives, flammable and combustible substances, poisons, and radioactive materials. Hazardous materials accidents can occur during production, storage, transportation, use, or disposal.

The impacts of hazardous materials release can vary, depending on the type and amount of material released. Exposure to hazardous materials can include the following effects: skin/eye irritation, difficulty breathing, headaches, nausea, behavior abnormalities, cancer, genetic mutations, physiological malfunctions (i.e., reproductive impairment, kidney failure), physical deformations, or birth defects. Some demographics may be particularly susceptible to the effects of hazardous materials. These sensitive receptors typically include children and the elderly.

Many businesses and residents in Los Altos use hazardous materials and generate hazardous waste. Common hazardous waste is generated from uses such as gasoline service stations, dry cleaners, and automotive mechanics.

Improper storage and disposal of hazardous waste can result in environmental contamination of surface water and groundwater. Heavy metals such as lead, zinc, copper, nickel, mercury, and cadmium can enter the waste stream via residential sewage and urban runoff. To ensure proper disposal, Los Altos joined with Santa Clara County and the other cities in the County in developing the County Hazardous Waste Management Plan, which establishes a comprehensive and coordinated countywide approach to hazardous waste management.

Los Altos residents can safely dispose of household hazardous waste through the Santa Clara Countywide Household Hazardous Waste Program. The County and 14 cities (including Los Altos) participate in the program and share costs based on the number of households served from each jurisdiction.

2.7.1. Hazardous Materials Incidents

Potential threats from hazardous materials exist where they are manufactured, stored, transported, or used. Although localized, small-scale hazardous materials spills pose low-magnitude risks to the City, there is potential for a major hazardous materials spill to severely impact the City, its inhabitants, or environmental resources. In Los Altos, commercial businesses that use hazardous materials include dry cleaners, film processors, auto service providers, and medical clinics. Residences also generate household hazardous wastes in the form of paints, thinners, pesticides, fertilizers, etc.

Hazardous waste generators and users in the City are required to comply with regulations enforced by several federal, state, and county agencies. The regulations aim toward reducing risk associated with human exposure to hazardous materials and minimizing adverse environmental effects. Los Altos contracts with the Santa Clara County Fire Department for fire protection services. The Fire Department conducts inspections related to hazardous materials. The Hazardous Materials Compliance Division of the County Environmental Health Services Department ensures compliance and reporting in accordance with the Santa Clara County Hazardous Waste Management Plan.

Hazardous materials can be flammable, radioactive, infectious, corrosive, toxic/poisonous, or otherwise reactive. The magnitude and severity of the hazard would be dependent on the type of spill, location, and the extent to which hazardous materials enter the water system. For example, a radioactive material spill would have a further-reaching impact compared to a paint spill. Most hazardous materials operations within the City are small-scale and pose minimal risk.

2.7.2. Hazardous Materials Sites

The State Water Resources Control Board (SWRCB) maintains a data management system called GeoTracker. GeoTracker identifies sites that impact or have the potential to impact water quality in jurisdictions statewide. These sites, such as leaking underground storage tank sites, Department of Defense sites, and cleanup program sites, are required to undergo cleanups.

GeoTracker also contains records for various unregulated projects as well as permitted facilities, including irrigated lands, oil and gas production, operating permitted underground storage tanks, and land disposal sites.[18]

As identified by the SWRCB, 42 sites have been cleaned up in Los Altos since 1990. The majority of hazardous materials sites were leaking underground storage tank sites at private residences. In 2024, five sites were shown to have ongoing activities related to the previously known or suspected release of hazardous materials to soil and groundwater in Los Altos.

2.7.3. Transportation of Hazardous Materials

Commercial transportation of hazardous materials via Interstate 280 would potentially have significant impacts during an incident, given the volumes of hazardous materials being transported. Transportation of hazardous materials/wastes is regulated by the California Code of Regulations Title 26. The US Department of Transportation is the primary regulatory authority for the interstate transport of hazardous materials, and establishes regulations for safe handling procedures (i.e., packaging, marking, labeling, and routing). Criteria also exist regarding personnel qualifications and training, inspection requirements, and equipment specifications.

The California Highway Patrol (CHP) enforces regulations related to the intrastate transport of hazardous materials and hazardous wastes. The CHP and the California Department of Transportation (Caltrans) enforce federal and state regulations and respond to hazardous materials transportation emergencies.

The transportation of hazardous materials via railroad is not an issue as there are no railway lines traversing the City. However, transportation of hazardous materials via freeway may be an issue as the Foothill Expressway traverses the City.

Hazardous materials also pass through the City in route to other designations via the freeway, rail, and surface street system. The US Department of Transportation regulates the transport of hazardous materials on state highways and rail lines using established criteria for safe handling procedures. Federal safety standards are also included in the California Administrative Code and the California Health Services Department regulates the haulers of hazardous waste.

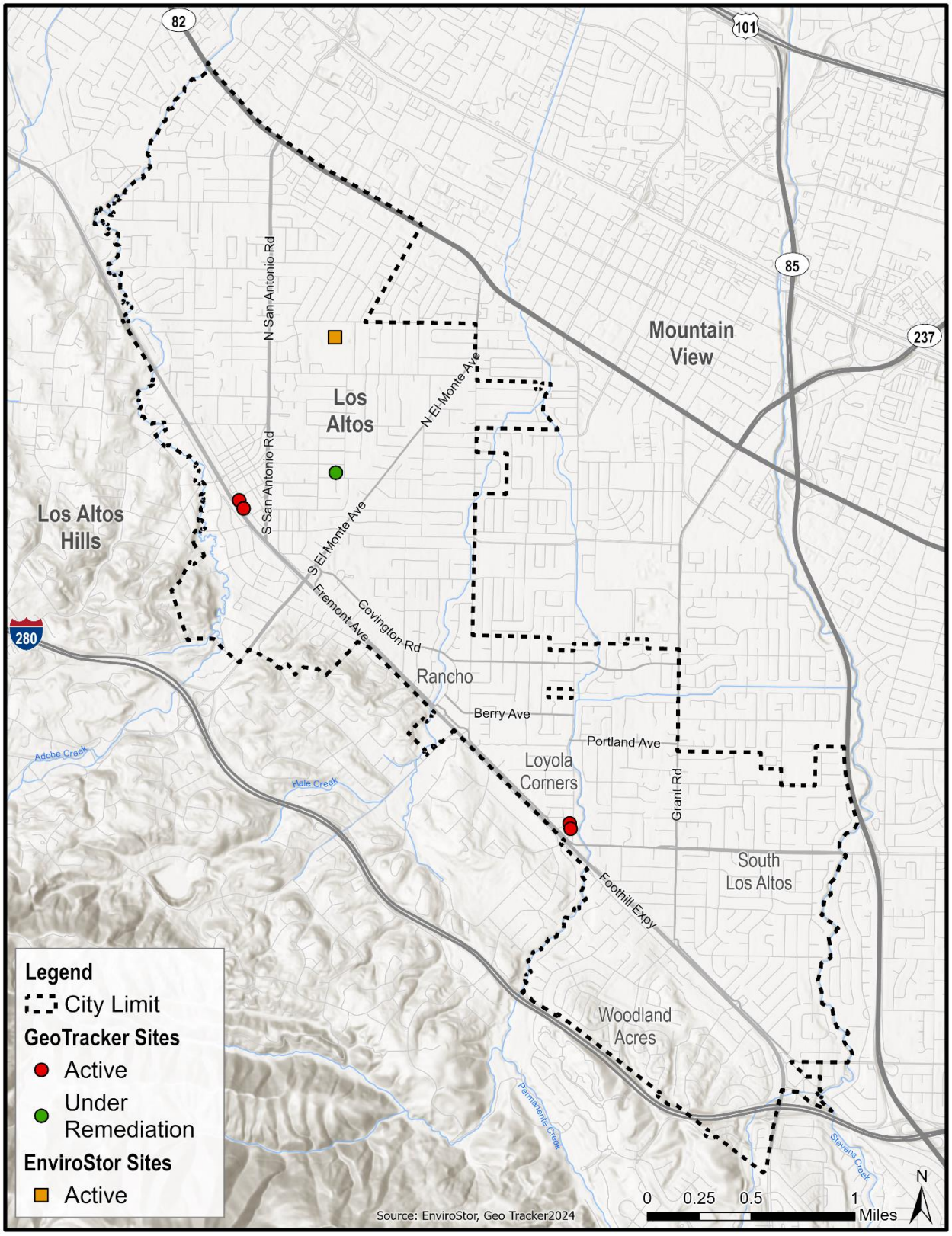
2.7.3.1. Siting and Managing Facilities

The use, storage, and handling of hazardous materials and waste within Los Altos are rigorously controlled by federal, state, and local regulations. The City uses a variety of tools to regulate facilities that use, store, and handle hazardous materials and waste in order to ensure compatibility with existing and planned surrounding land uses. The primary tools are zoning regulations, environmental review of proposed developments in accordance with CEQA, and the issuance of business licenses.

As development and redevelopment in Los Altos continue, the potential exists for facilities that use, store, and handle hazardous materials and waste to be sited in locations where such activities may be incompatible with existing and planned surrounding land uses. Through the use of appropriate tools, the City will ensure that facilities using, storing, and handling hazardous materials and waste will be appropriately sited and that the operation of such facilities will be regulated such that significant adverse effects to surrounding land uses will be avoided to the extent possible.

[18] GeoTracker, accessed June 1, 2024, https://geotracker.waterboards.ca.gov/map/?myaddress=California&from=header&cqid=5315671622.

Figure 17: Hazardous Materials Sites



Source: State Water Resources Control Board, GeoTracker; Department of Toxic Substances Control, EnviroStor; Esri; City of Los Altos.

2.7.4. Household Hazardous Waste Program

Hazardous Waste Management Plan

The City of Los Altos has a Household Hazardous Waste Program in place to manage items that pose a threat if disposed of improperly. Mission Trail Waste Systems provides residential, commercial, and industrial collection services for garbage, recycling, and organics in Los Altos. Some items, like batteries, fluorescent light bulbs, electronic waste, and mercury thermostats, are considered hazardous waste. These items cannot be disposed of in regular trash cans.

Hazardous waste generators and users in the City are required to comply with regulations enforced by several federal, state, and county agencies. The regulations are designed to reduce risk associated with human exposure to hazardous materials and minimize adverse environmental effects.

To ensure that classified hazardous substances used by commercial and residential activities are properly handled, contained, and disposed of, the Santa Clara County Fire Department coordinates with the County's Hazardous Materials Compliance Division to implement the Santa Clara County Hazardous Waste Management Plan.

2.8. Emergency Planning/Response

The Los Altos Emergency Preparedness Program includes an emergency preparedness webpage, Emergency Operations Plan (EOP), and Emergency Operations Center (EOC). In addition, Los Altos has two fire stations and one police station.

2.8.1. Emergency Preparedness Website

The City maintains an emergency preparedness webpage on the City website, which provides information regarding hazards and preparedness.[19] It identifies potential risks, facilities, and resources relied upon in the event of a catastrophe, and persons responsible for implementation. The webpage also provides personal emergency preparedness training, which includes the "26 Steps: Personal Emergency Preparedness Workbook." The webpage has information related to emergency supply kits, pet emergency preparedness, communications plan during the time of emergency, storm preparation and Resilient Los Altos. Resilient Los Altos is a community-driven initiative aimed at enhancing the City's resilience to various challenges, including natural disasters, climate change, and social disruptions.

2.8.2. Emergency Operations Plan

The EOP for the City of Los Altos outlines authorities, organizational structures, and procedures used to coordinate activities related to local and regional emergencies or disasters.[20] It establishes the emergency organization, assigns tasks, specifies policies, and provides for coordination of planning efforts using the Standardized Emergency Management System. The plan also meets the requirements established by the National Incident Management System. The objective of this plan is to incorporate and coordinate all agencies and personnel within the City into an efficient organization capable of responding to any

[19] City of Los Altos, "Emergency Preparedness," accessed June 1, 2024, https://www.losaltosca.gov/police/page/emergency-preparedness.

[20] City of Los Altos, *Emergency Operations Plan*, accessed June 1, 2024, https://www.losaltosca.gov/sites/default/files/fileattachments/public_works/project/56151/los_altos_eop_3.22.2016.pdf.

emergency. The EOP serves as the foundational element of the City's approach to emergency management. While all City resources may be called upon as needed, specific departmental responsibilities are outlined in the EOP Basic Plan and associated annexes.

The EOP calls for post-incident or post-exercise evaluation of the EOP, and/or changes in responsibilities, procedures, laws, or regulations. The City's Police Department is responsible for the review, revisions, management, and distribution of the City of Los Altos EOP. The post-disaster analysis will help the City improve safety plans and responses.

2.8.3. Emergency Operations Center

The Santa Clara County MJHMP identified that the City's Emergency Operations Center (EOC) needs to be replaced. The City proposes to incorporate a code compliant EOC into the existing Los Altos Community Center, which is located at 97 Hillview Avenue in the City of Los Altos. The proposed project would install radio equipment, antennas, and a satellite dish; replace existing HVAC system equipment with a new system equipped with more robust filters and connections to emergency power system; and construct a small enclosure to house a diesel emergency back-up generator. Following construction of the EOC, operation of the center would be limited to essential City functions during emergencies and natural disasters. Completion of the EOC is anticipated for August 2025, which includes the time to furnish and commission the generator; much of the work is anticipated to occur before that date.

The main purpose of the EOC is to provide a centralized location where emergency management coordination and decision making can be supported during a critical incident, major emergency, or disaster. The EOC will provide essential services to the public after a natural disaster; support a number of critical tasks such as monitoring activities related to emergency preparedness; and provide a location for collecting and analyzing data to help make decisions that protect the City of Los Altos.

In coordination with Santa Clara County Fire Department, the City partners with Resilient Los Altos, a program dedicated to improving the ability of groups of people to respond to and recover from adverse situations, such as natural disasters, acts of violence, economic hardship, and other challenges to the community of Los Altos and the adjacent areas. Resilient Los Altos offers classes, events, and webinars on emergency preparedness topics. Stakeholders include Los Altos Block Action Team members, the Los Altos Community Emergency Response Team (CERT) members, Los Altos Amateur Radio Emergency Service members, Los Altos School District representatives, Mountain View Los Altos High School District, faith-based community representatives, allied health representatives, and representatives from the business community.

The core Resilient Los Altos groups are the Block Action Teams, CERTs and ham radio operators. Block Action Teams are small neighborhood groups led by a volunteer leader who come together to work as a team after a disaster. CERTs are resident volunteers that have taken training about disaster preparedness and basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. Ham radio operators are licensed individuals who can provide communications services when other services such as telephone and text are unable.

Los Altos also offers a free personal emergency preparedness class in partnership with the Santa Clara County Fire Department. The class is designed to teach residents how to be self-

sufficient in the event of an emergency until relief is available.

The City maintains an emergency preparedness page on its website, which provides information about various resources and programs. In addition to County emergency alert notification systems such as Alert SCC, the City also subscribes to Nixle for text and voice notifications.

The first line of defense against any catastrophe is to avoid threatening situations and to prepare disaster response plans that will minimize the harmful impacts. Quick action in the event of an emergency will reduce the probability of additional injuries and damage.

Government disaster preparedness planning efforts are handled primarily by the police departments and the County Office of Emergency Services. The County and each city are required to prepare disaster plans in accordance with state regulations; assign duties for emergency response; designate EOCs and emergency shelters; and establish an emergency broadcast system.

2.8.4. Law Enforcement and Fire Protection

2.8.4.1. Law Enforcement

Law enforcement services are provided by the Los Altos Police Department. The Los Altos Police Department has a total of 32 sworn officers and 14 professional support staff; divisions include Patrol, Traffic, Investigations, Code Enforcement, Crime Prevention, Canine, SWAT and the Reserves. The following crime prevention programs and services are offered through the Los Altos Police Department:

- Neighborhood Watch
- Home security inspections
- A group presentation as requested by various resident or business groups/organizations.
- CityProtect program, which enables residents and businesses to register their cameras or submit a tip.

2.8.4.2. Fire Protection

The City contracts with the Santa Clara County Fire Department for fire protection services within the City boundaries. Two fire stations serve the City of Los Altos.

- Almond Fire Station at 10 Almond Avenue: 3 Personnel, Engine 75 (3), Engine 675 (Select Call), Engine 175 (Reserve), 1929 Model A (Antique)
- Loyola Fire Station at 765 Fremont Avenue: 3 Personnel, Engine 76 (3), Engine 176 (Reserve)

Services provided by the Fire Department include fire prevention, emergency medical services, hazardous materials, and fire investigations. Additionally, the mutual aid agreement between Los Altos and the Santa Clara County Fire Department includes automatic response from the 13 other fire stations in the event of large-scale fire events. One of the key performance indicators according to Santa Clara County Fire Department's 2023-2027 Strategic Plan is that "the first suppression unit arrives at structure fires, hazardous material releases, and other urgent incidents requiring the use of PPE within 7 minutes and 50 seconds (urban) or 11 minutes and 50 seconds (rural) for 90 percent of incidents."[21]

There are no plans for the expansion of existing facilities or addition of new stations in the area. Although the Santa Clara County Fire

[21] Santa Clara County Fire Department, *2023-2027 Strategic Plan*, https://www.sccfd.org/wp-content/uploads/2023/04/2023.4.26_SCCFD_StrategicPlan2023_FINAL_WEB.pdf.

Department does not currently anticipate a need for new or expanded fire response capabilities, this may change due to future development and increased population density.

2.9. Evacuation Routes

In the event of a significant emergency, clear routes are needed to ensure that emergency responders and supplies can be transported and that community members can be evacuated. Evacuation efforts depend on the severity and type of hazard incident that is occurring. In some cases, people may have a day or two to prepare, while other situations might call for an immediate evacuation. Evacuation routes include major roadways and thoroughfares intended to transport people from areas impacted by hazardous events to areas of safety. Refer to **Figure 18** for mapped evacuation routes.

The designated evacuation routes in the City include all arterials and highways. The primary north/south evacuation routes include Arastradero Road, West Fremont Road, San Antonio Road, South El Monte Avenue, Magdalena Avenue, South Springer Road, and Grant Road. The primary east/west evacuation routes from the City include Foothill Expressway, El Camino Real, Cuesta Drive, Fremont Avenue, Interstate 280, and Highway 101. Designated evacuation routes are the most reliable roadway facilities for the following reasons:

- These roads are designed to accommodate higher volumes of traffic in line with their classifications.
- Access controls are more stringent on roads of higher classification.
- Intersection controls are designed to prioritize travel on roads of higher classification.
- Roadway maintenance policies prioritize roads of higher classification.

Evacuation route vulnerability can be expressed from several perspectives. The most direct expression of route vulnerability deals with physical features along an evacuation route that can be damaged during emergency scenarios and cause the evacuation route to be disrupted and unusable. These physical features include:

- Bridges (over rivers, creeks, and other drainage features)
- Bridges (creating grade-separated roadways)
- Low points along the route that are prone to flooding
- Route locations along steep natural slopes that are prone to landslides
- Narrow road widths constraining access and egress of civilians and first responders
- Roads having significant slopes in excess of 20 percent grade

Evacuation route vulnerability can also be expressed in terms of vulnerability to residents where development areas are isolated and/or areas that have access to only one evacuation route. These areas are a concern and require additional advanced planning to address emergency scenarios where an evacuation is needed, and the single evacuation route may be blocked or damaged and cannot be used.

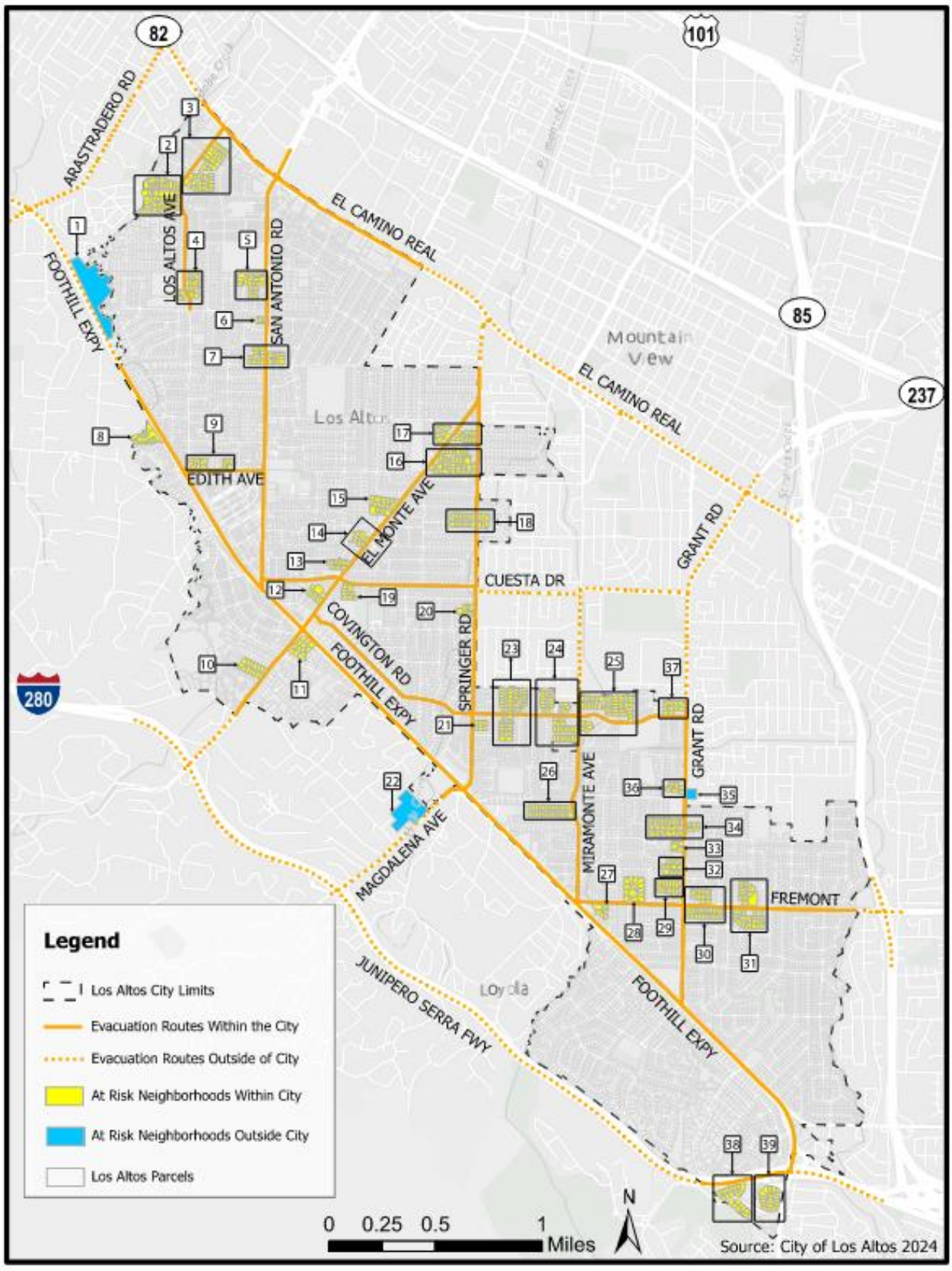
Figure 19 shows those residential development areas (neighborhoods) that have only one access point to a primary evacuation route. These neighborhoods were identified after a thorough review of various citywide maps and aerial photographs and include residential developments that may be access-constrained during an evacuation. If a neighborhood has direct access to another roadway and that roadway funnels to more than one designated evacuation route, it would not be considered vulnerable. Similarly, if a neighborhood has direct access to a designated evacuation route with only one way in and out, this would be

considered a vulnerable neighborhood. Vulnerable neighborhoods also include those with roads below the minimum width required by the Fire Code, dead-end roads that lack adequate turn arounds, or roads where distances between fire hydrants exceed Fire Code Requirements.

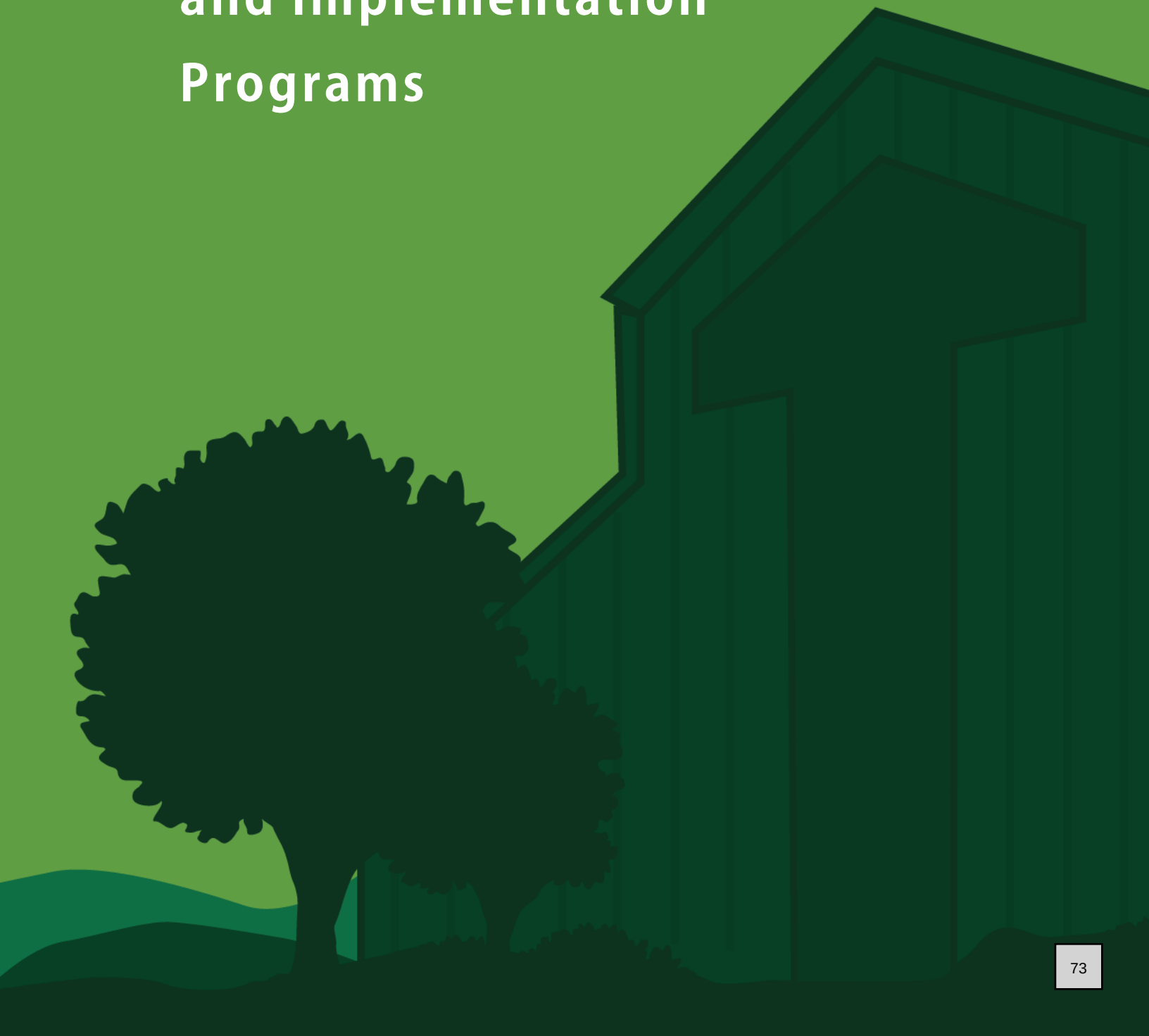
In an evacuation scenario, these neighborhoods could be exposed to an increased risk due to the lack of multiple egress opportunities; therefore, they should be given earlier evacuation consideration. Additionally, these neighborhoods should be evaluated for improvements, including road widening, smaller distances between fire hydrants, slope modifications, landscaping and other strategies to provide increased wildfire safety.

Figure 18: Evacuation Routes Map

Figure 19: Evacuation Route Vulnerable Neighborhoods



3.0 Goals, Policies, and Implementation Programs



3.0 Goals, Policies, and Implementation Programs

Goal SE-1: Reduce Geologic and Seismic Hazard Risk

Minimize risks of personal injury and property damage associated with seismic activity, landslides, and other geologic hazards.

Policies

SE-1.1: Monitor and update risk/life safety standards and regulate developments to mitigate risk to life and property related to earthquakes, liquefaction, erosion, landslides, and unstable soil conditions.

SE-1.2: Require site-specific soil analysis and geotechnical investigations for developments on sites in known or suspected hazard zones.

SE-1.3: Encourage regular assessments of the structural integrity of critical City facilities and infrastructure. Consider seismic retrofits for modifications to existing buildings and new buildings, ensuring that all construction complies with current seismic standards, when applicable.

Actions in Support of Goal SE-1

SE-1.a: *Require the submission and review of geologic and soils reports for all developments, in accordance with the Los Altos Municipal Code. The geological risk areas identified in these studies must include established standards and recommendations, which shall be incorporated into the development plans.*

SE-1.b: *Ensure strict compliance with the requirements of the California Code of Regulations (CCR), Title 24, during the plan check review process to minimize damage from earthquakes and other geologic activity.*

Goal SE-2: Reduce Flooding Hazard Risk

Reduce the potential for flooding along creeks that traverse Los Altos.

Policies

SE-2.1: Regulate land uses in flood-prone areas in accordance with the National Flood Insurance Program (NFIP) requirements. Allow development in flood-prone areas (including the 100-year and 500-year flood zones) that would avoid adverse impacts to existing properties and flood control and drainage structures or avoid adverse impacts with the appropriate mitigation.

SE-2.2: Identify and pursue local, state, and federal funding sources, including grants, to support flood prevention and mitigation efforts.

SE-2.3: Regularly maintain creeks and drainage systems to prevent flooding and property damage and proactively inspect drainage systems to remove obstructions. Coordinate with agencies to enhance infrastructure and promote sustainable stormwater management.

SE-2.4: Require all development projects requiring a building permit to

incorporate stormwater management measures that align with current National Pollutant Discharge Elimination System (NPDSE) permit requirements.

SE-2.5: Enhance public awareness and education on flood risks and mitigation measures.

Actions in Support of Goal SE-2

SE-2.a: *Continue to review projects in flood hazard areas to ensure compliance with Los Altos Municipal Code Chapter 12.60 (Flood Management Ordinance).*

SE-2.b: *Coordinate with the Valley Water District to maintain flood control channels, complete necessary repairs and secure funding to ensure resilient stormwater infrastructure.*

SE-2.c: *Prioritize the development and maintenance of a comprehensive and functional emergency evacuation plan for populated areas within identified dam inundation zones. This plan should address public concerns by including detailed procedures for evacuation and control, ensuring it is practical and effective for real-world scenarios.*

SE-2.d: *Continue to safeguard creeks and habitats by enforcing the Watercourse Protection Ordinance, which preserves water quality, biodiversity, and the natural integrity of creek ecosystems. Maintain and enhance the special setback provisions along Adobe Creek, from Shoup Park to O'Keefe Lane, to prevent development or activities that could degrade water flow, habitat, or water quality. Regularly review and update the ordinance to address emerging environmental challenges and ensure long-term protection of these vital watercourses.*

SE-2.e: *Continue erosion and sediment control measures for all construction and development projects to reduce soil erosion and minimize runoff into waterways.*

Goal SE-3: Reduce Hazardous Materials Hazard Risk

Protect the community's health, safety, welfare, natural resources, and property through regulation of use, storage, transport, and disposal of hazardous materials.

Policies

SE-3.1: Cooperate with and participate in development of the policies and future programs of the Santa Clara County Health Department and the California Legislature.

SE-3.2: Require hazardous waste generated within Los Altos to be disposed of in a safe manner, consistent with all applicable local, State, and Federal laws.

SE-3.3: Identify hazardous materials users and producers, to identify and mitigate risk of hazardous materials spills to the community.

SE-3.4: Coordinate with the Santa Clara County Fire Department (SCCFD) to ensure that businesses in Los Altos handling hazardous materials prepare and file a Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statement (HMIS).

SE-3.5: Require compliance with the Santa Clara County Hazardous Waste Management Plan.

Actions in Support of Goal SE-3

SE-3.a: *Maintain coordination with the Santa Clara County Fire Department (SCCFD) and support their ongoing efforts to conduct internal training for local fire personnel in the handling, containment, and cleanup procedures necessary for responding to spills of radioactive, toxic, and hazardous substances.*

SE-3.b: *Enforce compliance with the Santa Clara County Hazardous Waste Management Plan for all relevant businesses and operations within the City.*

Goal SE-4: Reduce Climate Change Hazard Risk

Minimize the risk of hazards and climate change to Los Altos residents.

Policies

SE-4.1: Continue implementing the Climate Action and Adaptation Plan (CAAP) to reduce risks and vulnerabilities associated with climate-related hazards. Efforts shall include ongoing assessment and progress tracking to enhance resilience and adaptation while ensuring actions do not lead to disproportionately adverse effects on vulnerable populations.

SE-4.2: Ensure that emergency response plans and training programs continue to evolve and are modified to protect residents, infrastructure, and facilities during emergencies and extreme weather events.

Actions in Support of Goal SE-4

SE-4.a: *Continue to implement actions as identified in the Los Altos Climate Action and Adaptation Plan (CAAP), to reduce risk and vulnerability for climate related hazards..*

SE-4b *Identify, designate, and publicize the availability of public buildings, specific private buildings, or institutions with air conditioning as cooling shelters for residents without access to air conditioning during extreme heat days.*

SE-4c: Collaborate with the City of Palo Alto to reduce the impact of sea level rise and secure funding to ensure resilient infrastructure for the Regional Water Quality Control Plant.

Goal SE-5: Reduce Human-Caused Hazard Risk

Minimize risks of personal injury and property damage associated with human activities, such as criminal activity and air and ground transportation.

Policies

SE-5.1: Continue to explore new community policing techniques to maintain the safe neighborhood character of the community.

SE-5.2: Apply design techniques and standards to prevent criminal activity in new development and reuse/revitalization projects.

SE-5.3: Reduce the risk from air and ground transportation hazards, such as aircraft, rail, truck, and roadway systems.

Actions in Support of Goal SE-5

SE-5.a: *Support multi-jurisdictional cooperation on emergency preparedness, hazard mitigation, and response. Coordinate with Santa Clara County to improve communication, training, and exercises, pursue a joint risk reduction project, and enhance system redundancy.*

SE-5.b: *Collaborate with community-based organizations like CERT, Resilient Los Altos, and the Los Altos Amateur Radio Emergency Service to strengthen local preparedness and emergency response. Leverage volunteer capacity and promote educational opportunities from regional and national nonprofits like the American Red Cross.*

SE-5.c: *Ensure critical facilities like hospitals, fire stations, and communication centers are designed to remain functional during disasters. Regularly assess these facilities for vulnerabilities and collaborate on necessary upgrades.*

Goal SE-6: Plan for City Action During a Disaster

Plan for City and citizen actions in the event of a disaster.

Policies

SE-6.1: Maintain an updated Emergency Operations Plan (EOP) and emergency preparedness information on the City website. Emergency preparedness information should increase public awareness of natural hazards and hazards associated with human activity and of methods to avoid or mitigate the effects of these hazards. The EOP should ensure that critical facilities will function during and after a disaster.

SE-6.2: Coordinate emergency preparedness with neighboring cities, local school districts, and the Santa Clara County Operational Area (OA), and continue to identify and support opportunities for shared mitigation activities, mutual aid and other support.

SE-6.3: Support Santa Clara County as the lead agency in the County-wide Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) and participate as an annex in future updates.

SE-6.4: Encourage participation in City Volunteer programs, such as Community Emergency Response Team (CERT) training, and regional/national programs, such as Red Cross. Encourage residents and community leaders to participate in disaster training programs, and as feasible, assist in neighborhood drills and safety exercises to increase participation and build community support.

SE-6.5: Promote and ensure the development, implementation, and regular updating of a comprehensive emergency evacuation plan. The plan should include detailed evacuation routes and awareness programs, with a particular focus on residential neighborhoods with limited access or egress points. The plan must be functional, regularly tested, and updated based on community feedback and evolving best practices.

SE-6.6: Continue to improve the City's notification system to ensure timely and effective notification of residents and community members in the event of an emergency. Encourage participation and registration in Santa Clara County's emergency alert,

warning, and evacuation systems, such as AlertSCC and Genasys Protect, for all Los Altos residents and workers.

Actions in Support of Goal SE-6

SE-6.a: *Continue to maintain a comprehensive* ***Emergency Operations Plan (EOP)*** *to enhance coordination among emergency service providers– including fire, medical and law enforcement-and to minimize human suffering and property damage during disasters. The Plan should do the following:*

1. Identify Resources & Coordination *– Outline available emergency response resources and establish coordinated action plans for various disaster scenarios, including earthquakes, fires, roadway accidents, flooding, hazardous materials incidents, civil disturbances, and chemical, biological, or nuclear attack.*

2. Designate Public Shelters *– Identify locations where aid, supplies, and shelter will be available to residents during emergencies.*

3. Ensure Regular Review & Alignment *– Conduct an annual review of the EOP to update roles, responsibilities, and contact information, ensuring alignment with current capabilities. Maintain consistency with the Santa Clara County Operational Area Emergency Operations Plan to facilitate seamless mutual aid coordination.*

4. Conduct Training & Exercises *– Hold annual tabletop exercises with City staff to reinforce emergency response procedures and preparedness. Additionally, participate in County-wide training opportunities as available to enhance coordination and readiness.*

SE-6.b: *Implement mitigation actions from the Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), City of Los Altos Annex. Use Federal Emergency Management Agency (FEMA) Hazard Mitigation Assistance (HMA) grants where appropriate and participate in MJHMP updates every five years.*

SE-6.c: *Continue to partner with community-based organizations such as Los Altos Community Emergency Response Team (CERT), Resilient Los Altos, and the Los Altos Amateur Radio Emergency Service members in emergency response efforts.*

SE-6.d: *Encourage schools, neighborhood associations, and other interested groups to teach first aid and disaster preparedness, including Community Emergency Response Team (CERT) programs, and other tools available to neighborhood and community groups to improve disaster preparedness.*

SE-6.e: *Identify areas with inadequate evacuation routes, particularly those lacking at least two emergency exits or located on streets narrower than 20 feet. Prioritize emergency outreach on neighborhoods with limited access, document them in the Emergency Operations Plan, prioritize early warnings, and improve evacuation routes as funding allows. Where feasible and as funding allows, develop and implement improvement plans to meet minimum evacuation standards.*

SE-6.f: *Continue to maintain tree trimming and maintenance for street trees and encourage maintenance on private property to prevent trees from obstructing evacuation routes.*

SE-6.g: *Continue to track and implement emerging technologies into the existing emergency notification systems to improve communications with residents during emergencies. Conduct regular tests and provide training for staff and community members to ensure effective notifications and communication during emergencies.*

Goal SE-7: Reduce Fire and Wildfire Risk

Minimize risks of personal injury and property damage associated with urban fire and wildfire hazards.

Policies

SE-7.1: Reduce wildfire risk through land use planning and wildfire prevention measures.

SE-7.2: Coordinate with Santa Clara County Fire Department and neighboring cities to provide roadside fuel reduction, defensible space, and vegetation management, particularly along evacuation routes.

SE-7.3: Provide outreach and education on topics including fire resilient landscaping, defensible space and evacuation procedures.

SE-7.4: Require undergrounding of utilities (including electric and communication utilities) on public and private property, where feasible.

SE-7.5: Prioritize the development and maintenance of a comprehensive and functional evacuation plan for areas potentially affected by wildfire hazards as part of the Emergency Operations Plan. Prioritize evacuation efforts and notice for neighborhoods that have only one evacuation point.

SE-7.6: Require new development to construct and fund all fire suppression infrastructure and equipment needed to provide adequate fire protection services.

SE-7.7: Promote fire safety through education and building design. Ensure all new development and redevelopment complies with the most current version of the California Building Code, California Fire Code, Los Altos Municipal Code, and all other legal requirements for fire safety.

SE-7.8 Ensure that adequate water supplies are available for fire suppression throughout the City and support the California Water Service efforts to remedy any deficiencies in the water delivery system to ensure adequate fire-suppression flows.

Actions in Support of Goal SE-7

SE-7.a: *Continue to participate in the Santa Clara County Weed Abatement program to identify and mandate the abatement of fire hazards due to weed or plant growth. Ensure private properties within the Urban Wildland Interface reduce wildfire risk through comprehensive vegetation management, including establishing defensible space and proper storage of flammable materials. Coordinate with the Santa Clara County Fire Department and neighboring cities to mitigate hazardous conditions on or near the City's jurisdictional boundary.*

SE-7.b: *Promote community awareness and participation in the Santa Clara County Fire Department's fire education programs.*

SE-7.c: *Require that all new utility services and relocated existing utility services are placed underground, in accordance with Los Altos Municipal Code Chapter 12.68.*

SE-7.d: *Continue to regularly track designated wildfire hazard zones such as the fire hazard severity zone (CalFIRE) and county-designated Wildland Urban Interface (WUI) zones.*

SE-7.e: *Collaborate with the California Water Service to regularly evaluate existing infrastructure and ensure adequate fire flow for fire suppression. Coordinate with the California Water Service to identify and remediate infrastructure that does not meet fire flow requirements and explore emergency water supply agreements, if necessary.*

Goal SE-8: Emergency Services

Maintain a safe community through adequate, efficient, and high-quality police, fire, and emergency services.

Policies

SE-8.1: Provide adequate funding for police personnel and equipment, to accommodate existing and future community needs to ensure a safe and secure environment for people and property.

SE-8.2: Promote and support community-based crime prevention programs as an important augmentation to the provision of professional police services. Support existing programs and encourage expanded or new programs that focus on youth crime prevention, anti-gang, and anti-graffiti programs, or other community programs that reduce crime throughout the City.

SE-8.3: Cooperate with neighboring cities, Santa Clara County, and regional agencies to address crime issues that cross jurisdictional boundaries.

Actions in Support of Goal SE-8

SE-8.a: *Allocate sufficient budgetary resources to ensure the recruitment, training, and retention of police personnel, and the procurement of necessary equipment. Identify and pursue grants and funding opportunities to support these efforts.*

SE-8.b: *Periodically evaluate Police Department response times and incident data to ensure adequate police services are provided throughout the city.*

SE-8.c: *Regularly evaluate the effectiveness of crime reduction initiatives with the Police Department and adapt policies and programs accordingly.*

SE-8.d: *As part of the development review process, continue to consult with the Santa Clara County Fire Department in order to ensure that development projects facilitate adequate fire services and fire prevention measures.*

SE-8.e: *Maintain regular communication with regional public safety providers, including County of Santa Clara Office of the Sheriff and Office of Emergency Management to discuss regional issues, share best practices, and develop joint strategies for solutions.*

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INTRODUCTION

Hazardous conditions due to human activity, such as noise and air pollutants can impact community safety and quality of life. Los Altos seeks to minimize the hazards associated with human activities. The Natural Environment & Hazards Element establishes goals, policies, and a plan for that purpose.

Purpose of the Natural Environment & Hazards Element

The purpose of the Natural Environment & Hazards Element is to identify and address those features or characteristics in or near the City's planning area, which represents a potential hazard to the people in Los Altos. Goals and policies in the element are intended to protect the community from deteriorating quality of life resulting from hazards relating to human activity

Scope and Content of the Natural Environment & Hazards Element

The Natural Environment & Hazards Element of Los Altos satisfies the requirements of the state-mandated Noise Element. Air quality is also addressed to comply with the requirements of the Bay Area Air Quality Management District (BAAQMD) standards.

As specified in Government Code Section 65302(f), the Noise Element must identify and appraise noise problems in the community to ensure acceptable levels of noise exposure. Existing (baseline) and future noise conditions are quantified as noise exposure contours. This information serves as the basis to develop guidelines for compatible land uses.

The element is comprised of four sections: 1) Introduction, 2) the Natural Environment & Hazards Plan; 3) Issues, Goals and Policies; and 4) Implementation Programs Appendix. The Plan provides background information and explains how the goals and policies will be achieved and implemented. In the Issues, Goals and Policies section, hazards associated with human activity are identified and related goals and policies are established to address these issues. The goals, which are overall statements of the community's desires, are comprised of broad statements of purpose and direction. The policies serve as guides for determining acceptable risks/impacts, regulating development in reducing or avoiding adverse effects, and ensuring land use compatibility. The Natural Environment & Hazards Implementation Programs Appendix identifies the specific implementation programs for this element.

Related Laws Plans and Programs

There are a number of existing plans and programs that directly relate to the goals of the Natural Environment & Hazards Element. Enacted through state and local action, these plans and programs are administered by agencies with responsibility for their enforcement.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) was adopted by the state legislature in response to a public mandate for a thorough environmental analysis of projects that might adversely affect the environment. The provisions of the law, review procedure and any subsequent analysis are described in the CEQA Statutes and Guidelines as amended in 1998. Safety hazards, as well as noise and air quality impacts are recognized as environmental impacts under CEQA.

California Noise Insulation Standards

The California Commission of Housing and Community Development officially adopted noise insulation standards in 1974. Revised in 1988, the standards established an interior noise standard of 45 dBA for residential space (CNEL or Ldn). Acoustical studies are required for residential structures proposed within noise contours of 60 dBA or greater from industrial or transportation noise sources to demonstrate compliance with interior noise standards.

Uniform Building Code

The Uniform Building Code includes Sound Transmission Control standards for building construction under Appendix 12, Division 2/2a.

Los Altos Noise Control Ordinance

The City's Noise Ordinance (adopted as part of the Municipal Code) establishes interior and exterior noise standards for daytime and nighttime hours by zoning district, identifies prohibited acts relative to noise, including maximum noise levels for mobile and stationary noise sources, and special exemptions. Noise Ordinance requirements are identified in this Element.

Federal Clean Air Act

The Federal Clean Air Act established National Ambient Air Quality Standards (NAAQS) in 1970 for six pollutants: carbon monoxide, ozone, particulates, nitrogen dioxide, sulfur dioxide, and lead. The Act requires states with air pollution that exceeds the NAAQS to prepare air quality plans demonstrating how the standards would be met (State Implementation Plans SIPs). In 1990, amendments to the Act established categories of severity for non-attainment areas ("marginal" to "extreme"). In 1994, the California Air Resources Board adopted a revised State Implementation Plan for ozone to meet the requirements of the 1990 amendments.

California Clean Air Act

The California Clean Air Act (CCAA) was enacted in 1988 requiring attainment of California's ambient air quality standards. Amended in 1992 and 1996, the state's ambient air quality standard are more stringent than the national standards. In general, the CCAA requires regions whose air quality exceeds state standards to reduce pollutants by five percent or more per year, or to implement all feasible measures to meet the state air quality standards as expeditiously as possible.

Relationship to Other General Plan Elements

According to state planning law, the Natural Environment & Hazards Element must be consistent with the other General Plan elements. While all elements are interdependent, they are also interrelated to a degree. Certain goals and policies of each element may address issues that are primary subjects of other elements. This integration of issues throughout the General Plan creates a strong basis for the implementation of plans and programs and the achievement of community goals. The Natural & Hazards Element is most directly related to Land Use, Housing, and Open Space, Conservation & Community Facilities Elements.

NATURAL ENVIRONMENT & HAZARD PLAN

Noise

In Los Altos, the predominant source of noise is transportation-related noise from vehicle and truck traffic on the City's road system. Commercial noise sources in Los Altos are not significant enough to warrant identification as significant stationary noise sources. In order to minimize impacts associated with transportation-related noise sources, residential development and redevelopment proposed within areas where a noise of 60 dBA is or will be exceeded should conduct acoustical analysis to ensure compliance with the City's noise level standards.

Noise is generally defined as unwanted sound – unwanted being dependent on when and where the sound occurs, what the listener is doing, characteristics of the sound, and how intrusive it is above background sound levels. Noise hazards are a function of increasing mechanization, with noise being principally produced by machines for transportation and production. In Los Altos, traffic movement on the City's road system is the predominant source of noise.

Noise levels are measured on a logarithmic scale in decibels which are then weighted and added over a 24-hour period to reflect not only the magnitude of the sound but also its duration, frequency, and time of occurrence. In this manner, various acoustical scales and units of measurement have been developed such as equivalent sound levels (Leq), day-night average sound levels (Ldn) and Community Noise Equivalent Levels (CNEL).

These measurements become the basis for setting acceptable standards at sensitive noise receptors and identifying potential noise generators. The State of California Office of Noise Control, in its Land Use Compatibility Standards table (), defines an outdoor level of Ldn 60 dBA or less as being "normally acceptable" for residential uses, schools, libraries, churches, and hospitals. This standard also intends to provide for interior noise levels no greater than 45 dBA (Ldn), which is generally accepted as the maximum acceptable noise level for most indoor residential activities. Maximum noise exposure levels acceptable in Los Altos are consistent with the standards in **Table 1**.

In 1974, the state adopted Noise Insulation Standards (Chapter 2-35 of Title 24) for new hotels, motels, and dwellings other than single family detached dwellings. Those standards established 45 dBA (Ldn) as the maximum interior sound level (attributable to exterior sources) in any room. Where exterior sound levels are 60 dBA (Ldn) or above, acoustical analyses for projects are required to ensure that the structure has been designed to limit outside noise to the allowable interior levels.

Title 24 also includes standards to be met for sound transmission between units. Multi-family attached units must incorporate noise reduction features sufficient to assure that interior noise levels in all habitable rooms do not exceed 45 dBA.

Table 1: Land Use Compatibility Standards

Land Use	Community Noise Exposure (Ldn or CNEL)					
	55	60	65	70	75	80
Residential						
Transient Lodging – Motel, Hotel						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Parks						
Golf Course, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Business Commercial, and Professional						
Industrial, Manufacturing, Utilities, Agriculture						

Source: Modified by CBA from 1998 State of California General Plan Guidelines.

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved meet conventional Title 24 construction standards. No special noise insulation requirements.

Conditionally Acceptable: New construction or development shall be undertaken only after a detailed noise analysis is made and noise reduction measures are identified and included in the project design.

Normally Unacceptable: New construction or development is discouraged. If new construction is proposed, a detailed analysis is required, noise reduction measures must be identified, and noise insulation features included in the design.

Clearly Unacceptable: New construction or development should not be undertaken.

Existing Noise Sources in Los Altos

Noise emanates from stationary and mobile sources. Fixed sources include construction, refrigeration units, radio or television, loud speakers, power tools (including leaf flowers), and animals. Mobile noise sources typically are transportation related. In Los Altos, motor vehicles on the City's roadway system are the major source of continuous noise.

The state's planning laws require identification of areas exposed to high noise levels. "Noise exposure areas" are defined as those areas where noise levels exceed 60 dBA (Ldn). In Los Altos, these noise exposure areas exist along some collector streets, minor arterials, and principal arterials with high traffic volumes and relatively high speeds. The distance from the road centerline to points at which noise levels are 80, 75, 70, 65, and 60 dBA have been calculated from the 2001 Average Daily Traffic (ADT) for arterials and collectors throughout Los Altos. Assumptions and results are listed in **Table 2** and shown in **Figure 1**.

No commercial or industrial uses have been identified to be major on-going noise sources for which noise contours need to be prepared.

Projected Future Noise Sources

Growth in and near Los Altos will generate in-creased traffic volumes and thereby increase the exposure to high noise levels. Resulting future noise contours for the year 2025 are shown in **Table 3** and **Figure 2**.

Land use planning, with appropriate noise re-duction mitigation, will establish land use, site, and building design acceptable for new development adjacent to major roadways. Acoustic architectural design, involving site plans, building heights, room arrangements, window size, balcony and courtyard design, and acoustic construction, involving treatment of various parts of a building to reduce interior noise levels, shall be considered in mitigating noise hazards at new developments.

Noise barriers should be considered when other mitigation is infeasible. Ideally, noise barriers will incorporate berms, walls, and ap-propriate landscaping to reduce the visual im-pact of the sound walls.

Certain areas within Los Altos are subject to high noise levels. The primary noise source impacting Los Altos results from transportation-related activities, especially along major transportation corridors. Other noise sources not related to transportation include construction, business operation, recreational activities, and property maintenance. Consideration of the sources and recipients of noise early in the land use planning and development process can be an effective method of minimizing the impact of noise on people in the community. Consideration may be given to reducing noise in areas already impacted by noise through re-habilitative improvements and enforcement of local noise regulations.

Table 2: Distance to Existing CNEL Contour Lines

Roadway/Reach	Speed Limit mph	% Trucks	Average Daily Traffic	CNEL @ 50' from near lane C/L	Distance to Existing Contours From Near Lane Centerline, feet				
		Med/Heavy	2001	2001	60dB	65dB	70dB	75dB	80dB
Almond Avenue:									
E of San Antonio	25	1.8/0.7%	7,380	61.0	62	--	--	--	--
E of Solana	25	1.8/0.7%	6,010	60.0	50	--	--	--	--
Covington Road:									
E of El Monte	25	1.8/0.7%	3,610	58.0	--	--	--	--	--
W of Springer	25	1.8/0.7%	2,670	57.0	--	--	--	--	--
E of Springer	25	1.8/0.7%	5,220	59.5	--	--	--	--	--
E of Miramonte	25	1.8/0.7%	5,910	60.0	50	--	--	--	--
Cristo Rey Drive:									
W of Foothill	30	1.8/0.7%	6,950	64.0	110	--	--	--	--
Cuesta Drive:									
E of El Monte	25	1.8/0.7%	8,540	61.5	69	--	--	--	--
San Antonio - El Monte	25	1.8/0.7%	5,830	60.0	50	--	--	--	--
Distel Drive:									
S of El Camino Real	25	1.8/0.7%	2,190	56.5	--	--	--	--	--
Edith Avenue:									
Los Altos – San Antonio	25	1.8/0.7%	7,210	61.0	62	--	--	--	--
El Monte Avenue:									
S of Foothill Expy.	25	2.0/2.0%	31,180	69.0	255	110	--	--	--
N of Foothill Expy.	25	1.8/0.7%	14,660	64.0	110	--	--	--	--
S of Jay	25	1.8/0.7%	12,290	63.0	90	--	--	--	--
Fallen Leaf Lane:									
N of Fremont	25	1.8/0.7%	1,180	54.0	--	--	--	--	--
S of Fremont	25	1.8/0.7%	2,860	57.5	--	--	--	--	--
N of Homestead	25	1.8/0.7%	1,410	54.5	--	--	--	--	--
Fremont Avenue:									
Miramonte – Grant	35	1.8/0.7%	9,360	65.0	130	50	--	--	--
Grant – Truman	35	1.8/0.7%	17,500	67.5	200	83	--	--	--
E of Truman	35	1.8/0.7%	23,470	69.0	255	110	--	--	--
Granger Avenue:									
N of Grant	25	1.8/0.7%	1,510	55.0	--	--	--	--	--
Grant Road:									
Foothill Exwy. – Morton	25	1.8/0.7%	14,120	63.5	100	--	--	--	--
	25	1.8/0.7%	11,880	63.0	90	--	--	--	--
Morton – Fremont	35	1.8/0.7%	21,370	68.5	235	100	--	--	--
N of Fremont	35	1.8/0.7%	24,200	69.0	255	110	--	--	--
S of North City Limits									
Homestead Road:									
S of Grant	35	1.8/0.7%	4,030	61.5	69	--	--	--	--
W of SR-85	35	1.8/0.7%	15,660	67.0	185	75	--	--	--
Jordan Avenue:									
S of El Camino Real	25	1.8/0.7%	2,890	57.5	--	--	--	--	--

Roadway/Reach	Speed Limit mph	% Trucks	Average Daily Traffic	CNEL @ 50' from near lane C/L	Distance to Existing Contours From Near Lane Centerline, feet				
		Med/Heavy	2001	2001	60dB	65dB	70dB	75dB	80dB
Los Altos Avenue:									
S of El Camino Real	25	1.8/0.7%	5,240	59.5	--	--	--	--	--
Louck – Pine	25	1.8/0.7%	4,540	59.0	--	--	--	--	--
Pine – Edith	25	1.8/0.7%	5,690	60.0	50	--	--	--	--
Edith – Main	25	1.8/0.7%	6,680	60.5	56	--	--	--	--
Main – San Antonio	25	1.8/0.7%	6,590	60.5	56	--	--	--	--
Main Street:									
Los Altos – San Antonio	25	1.8/0.7%	9,710	62.0	75	--	--	--	--
Miramonte Avenue:									
N of Fremont Avenue	25	1.8/0.7%	11,880	63.0	90	--	--	--	--
S of North City Limits	35	1.8/0.7%	11,610	66.0	155	62	--	--	--
Oak Avenue:									
E of Grant	25	1.8/0.7%	2,650	57.0	--	--	--	--	--
Portland Avenue:									
E of Miramonte	25	1.8/0.7%	3,360	58.0	--	--	--	--	--
Saint Joseph Avenue:									
S. of Foothill Exwy	25	1.8/0.7%	5,380	60.0	50	--	--	--	--
San Antonio Road:									
S of El Camino Real	35	2.0/2.0%	29,150	69.5	278	120	--	--	--
Loucks – Almond	35	2.0/2.0%	29,710	70.0	300	130	50	--	--
Almond – Hillview	35	2.0/2.0%	32,000	70.0	300	130	50	--	--
Hillview – Foothill Exwy	35	2.0/2.0%	20,970	68.5	235	100	--	--	--
Sherwood Avenue:									
E of San Antonio	25	1.8/0.7%	2,460	56.5	--	--	--	--	--
Springer Road:									
N of Foothill Exwy.	30	1.8/0.7%	12,930	65.5	143	56	--	--	--
S of El Monte	30	1.8/0.7%	8,990	64.0	110	--	--	--	--
Truman Avenue:									
N of Fremont	25	1.8/0.7%	4,800	59.5	--	--	--	--	--
S of Fremont	25	1.8/0.7%	380	50.0	--	--	--	--	--
University Avenue:									
W of El Monte	25	1.8/0.7%	3,040	57.5	--	--	--	--	--
SR-82:									
S of El Monte	35	3.5/0.5%	46,500	71.0	340	155	62	--	--
N of El Monte	35	3.5/0.5%	46,500	71.0	340	155	62	--	--
S of San Antonio	35	3.5/0.5%	44,500	71.0	320	143	56	--	--
N of San Antonio	35	3.5/0.5%	49,700	71.0	340	155	62	--	--
SR-85:									
I-280 – Homestead	65	1.6/1.6%	118,000	75.0	600	300	130	50	--
Homestead – Fremont	65	1.6/1.6%	125,000	75.0	600	300	130	50	--
Fremont – SR-82	65	2.5/2.0%	116,000	75.0	600	300	130	50	--
I-280:									
SF-85 – Foothill	65	1.9/1.4%	142,000	82.0	1,250	760	395	185	75
Foothill – Magdelena	65	1.9/1.4%	127,000	75.5	640	320	143	56	--

Roadway/Reach	Speed Limit mph	% Trucks	Average Daily Traffic	CNEL @ 50' from near lane C/L	Distance to Existing Contours From Near Lane Centerline, feet				
		Med/Heavy	2001	2001	60dB	65dB	70dB	75dB	80dB
Foothill Expressway:				(1)	(1)	(1)	(1)		
Homestead –	45	2.0/2.0%	40,540	69/73	--	--	--	--	--
Arboretm	45	2.0/2.0%	40,540	69/73	95/140	74/90	--/69	--	--
Arboretm – Grant	45	2.0/2.0%	40,540	69/73	255/140	110/90	--/69	--	--
Grant – Fremont	45	2.0/2.0%	40,540	73	460	215	90/--	--	--
Fremont – Springer	45	2.0/2.0%	40,540	69/73	255/460	110	90/--	--	--
Springer – El Monte	45	2.0/2.0%	40,540	69/73	255/460	110	90/--	--	--
El Monte – San	45	2.0/2.0%	40,540	69/73	255/140	110/90	--/69	--	--
Antonio	45	2.0/2.0%	40,540	69/73	460/140	--/90	--/69	--	--
San Antonio – Main	45	2.0/2.0%	40,540	69/73	195/140	--/90	--/69	--	--
Main – Edith									
Edith to Arastadero									

Source: Weiland Associates, Inc. 2001
(1) numbers in this section represent the west/east sides of the road segment.

Figure 1: Existing Noise Contours

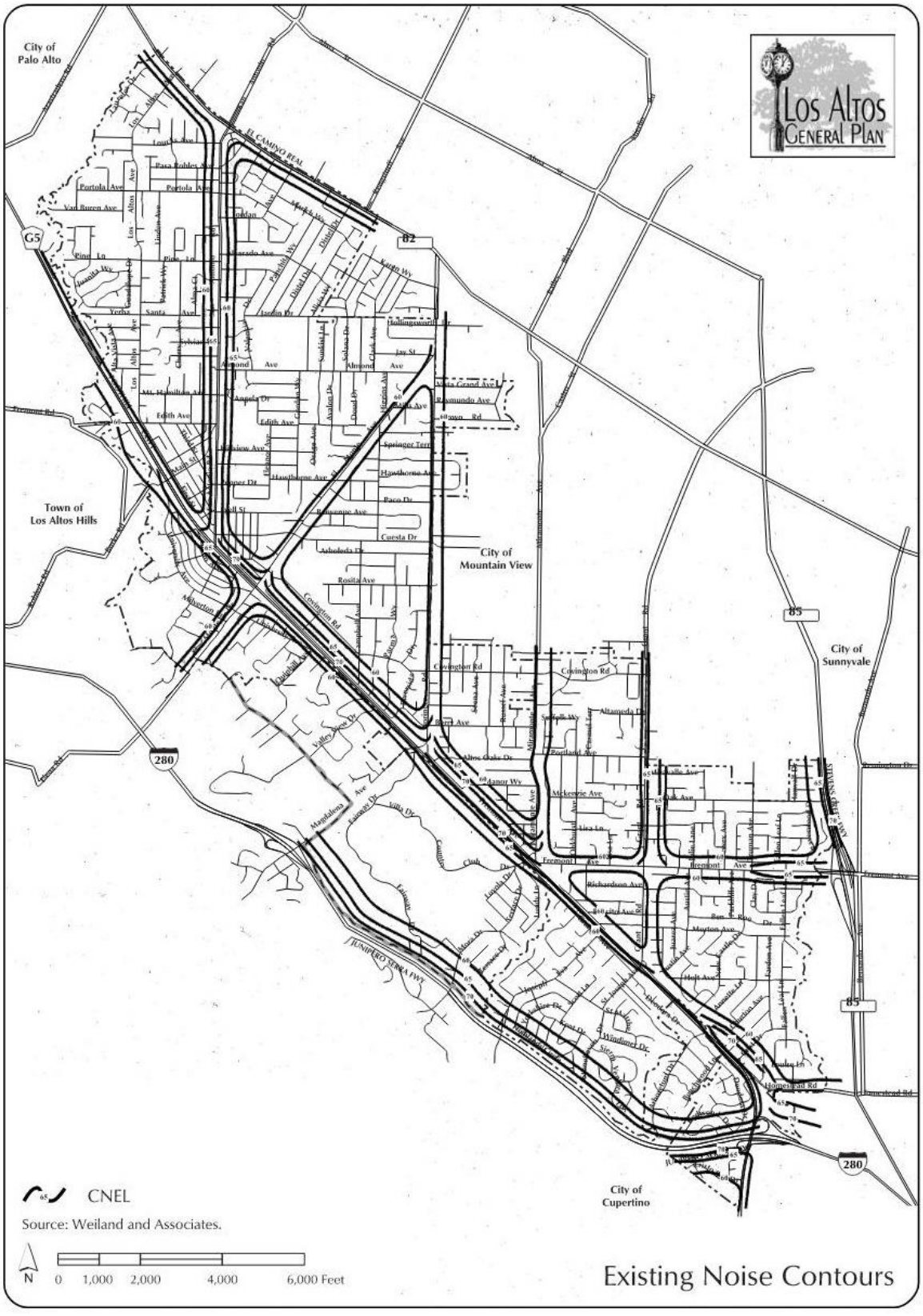

Table 3: Distance to Future CNEL Contour Lines

Roadway/Reach	Speed Limit mph	% Trucks	Average Daily Traffic	CNEL @ 50' from near lane C/L	Distance to Future Contours From Near Lane Centerline, feet				
		Med/Heavy	2025	2025	60dB	65dB	70dB	75dB	80dB
Almond Avenue:									
E of San Antonio	25	1.8/0.7%	8,920	62.0	75	--	--	--	--
E of Solana	25	1.8/0.7%	7,270	61.0	62	--	--	--	--
Covington Road:									
El Monte - Fremont	25	1.8/0.7%	6,780	60.5	56	--	--	--	--
Riverside - Springer	25	1.8/0.7%	3,020	57.5	--	--	--	--	--
Springer - Spencer	25	1.8/0.7%	5,850	60.0	50	--	--	--	--
Thatcher - Eastwood	25	1.8/0.7%	6,670	60.5	56	--	--	--	--
Cristo Rey Drive:									
Foothill - Friar	35	1.8/0.7%	7,090	64.0	110	--	--	--	--
Cuesta Drive:									
Clark - Springer	25	1.8/0.7%	9,650	62.0	75	--	--	--	--
El Monte - Gabilan	25	1.8/0.7%	6,590	60.5	56	--	--	--	--
Distel Drive:									
ECR - Distel	25	1.8/0.7%	2,230	56.5	--	--	--	--	--
Edith Avenue:									
Third - View	25	1.8/0.7%	8,830	61.5	69	--	--	--	--
El Monte Avenue:									
University - Milverton	25	2.0/2.0%	35,220	69.5	278	120	--	--	--
Giffin - Shirlynn	25	1.8/0.7%	16,580	64.5	120	--	--	--	--
Jay - Almond	25	1.8/0.7%	13,890	63.5	100	--	--	--	--
Fallen Leaf Lane:									
Fremont - Brookmill	25	1.8/0.7%	1,440	54.5	--	--	--	--	--
Fremont - Alexander	25	1.8/0.7%	3,410	58.0	--	--	--	--	--
Homestead - Marshall	25	1.8/0.7%	1,470	55.0	--	--	--	--	--
Fremont Avenue:									
Grant - Lisa	35	1.8/0.7%	10,560	65.5	130	50	--	--	--
Grant - Siesta	35	1.8/0.7%	19,770	68.0	200	83	--	--	--
Fallen Leaf - Stevens Creek	35	1.8/0.7%	26,580	69.5	255	110	--	--	--
Granger Avenue:									
St Joseph - Sandalwood	25	1.8/0.7%	1,570	55.0	--	--	--	--	--
Grant Road:									
Foothill Exwy. – Morton	25	1.8/0.7%	15,970	64.0	110	--	--	--	--
Fremont - Richardson	25	1.8/0.7%	13,430	63.5	100	--	--	--	--
Fremont - Garthwick	35	1.8/0.7%	24,150	69.0	255	110	--	--	--
Covington - Levin	35	1.8/0.7%	27,340	69.5	278	120	--	--	--
Homestead Road:									
S of Grant	35	1.8/0.7%	4,190	62.0	75	--	--	--	--
Fallen Leaf – Stevens Creek	35	1.8/0.7%	16,910	67.5	200	83	--	--	--
Jordan Avenue:									
ECR - Marich	25	1.8/0.7%	3,010	57.5	--	--	--	--	--
Los Altos Avenue:									
ECR - Santa Rita	25	1.8/0.7%	7,220	61.0	62	--	--	--	--
Pine - Spagnoli	25	1.8/0.7%	6,520	60.5	56	--	--	--	--
W. Edith - Mt Hamilton	25	1.8/0.7%	7,050	61.0	62	--	--	--	--

Roadway/Reach	Speed Limit mph	% Trucks	Average Daily Traffic	CNEL @ 50' from near lane C/L	Distance to Future Contours From Near Lane Centerline, feet				
		Med/Heavy	2025	2025	60dB	65dB	70dB	75dB	80dB
Main Street:									
Foothill Exwy. - First	25	1.8/0.7%	9,710	62.0	75	--	--	--	--
Miramonte Avenue:									
A - B	25	1.8/0.7%	13,540	63.5	100	--	--	--	--
Covington - Alegre	35	1.8/0.7%	13,120	66.5	170	69	--	--	--
Oak Avenue:									
Grant - Braddale	25	1.8/0.7%	2,760	57.0	--	--	--	--	--
Portland Avenue:									
Grant - Carvo	25	1.8/0.7%	4,050	58.5	--	--	--	--	--
Saint Joseph Avenue:									
Deodora - Stonehaven	25	1.8/0.7%	5,490	60.0	50	--	--	--	--
San Antonio Road:									
ECR - Loucks	35	2.0/2.0%	35,970	70.5	320	143	56	--	--
Pine - Arbuelo	35	2.0/2.0%	36,830	70.5	320	143	56	--	--
Edith - Mt. Hamilton	35	2.0/2.0%	39,000	71.0	340	155	62	--	--
Pepper - Hawthorn	35	2.0/2.0%	23,790	69.0	255	110	--	--	--
Sherwood Avenue:									
San Antonio - Acacia	25	1.8/0.7%	2,930	57.5	--	--	--	--	--
Springer Road:									
Berry to Fremont	30	1.8/0.7%	14,620	66.0	155	62	--	--	--
Vista Grande– El Monte	30	1.8/0.7%	10,160	64.5	120	--	--	--	--
Truman Avenue:									
Fremont - Wakefield	25	1.8/0.7%	4,990	59.5	--	--	--	--	--
University Avenue:									
El Monte - Edgewood	25	1.8/0.7%	3,430	58.0	--	--	--	--	--
SR-82:									
S of El Monte	35	3.5/0.5%	52,000	71.5	368	170	69	--	--
N of El Monte	35	3.5/0.5%	52,000	71.5	368	170	69	--	--
S of San Antonio	35	3.5/0.5%	50,000	71.0	340	155	62	--	--
N of San Antonio	35	3.5/0.5%	56,000	71.5	368	170	69	--	--
SR-85:									
I-280 – Homestead	65	1.6/1.6%	130,000	75.5	640	320	143	56	--
Homestead – Fremont	65	1.6/1.6%	137,000	75.5	640	320	143	56	--
Fremont – SR-82	65	2.5/2.0%	128,000	75.5	640	320	143	56	--
I-280:									
SF-85 – Foothill	65	1.9/1.4%	156,000	82.5	1,325	810	428	200	82.5
Foothill – Magdelena	65	1.9/1.4%	139,000	78.0	860	460	215	90	--
Foothill Expressway:				(1)	(1)	(1)	(1)		
Homestead – Arboretm	45	2.0/2.0%	40,540	69/73	255/460	110/215	-/90	--	--
Arboretm – Grant	45	2.0/2.0%	40,540	69/73	95/140	74/90	--/69	--	--
Grant – Fremont	45	2.0/2.0%	40,540	69/73	255/140	110/90	--/69	--	--
Fremont – Springer	45	2.0/2.0%	40,540	73	460	215	90/--	--	--
Springer – El Monte	45	2.0/2.0%	40,540	69/73	255/460	110	90/--	--	--
El Monte – San Antonio	45	2.0/2.0%	40,540	69/73	255/460	110	90/--	--	--
San Antonio – Main	45	2.0/2.0%	40,540	69/73	255/140	110/90	--/69	--	--
Main – Edith	45	2.0/2.0%	40,540	69/73	460/140	--/90	--/69	--	--
Edith to Arastadero	45	2.0/2.0%	40,540	69/73	195/140	--/90	--/69	--	--

Source: Weiland Associates, Inc. 2001
(1) numbers in this section represent the west/east sides of the road segment.

Figure 2: Future Noise Contours

Air Quality

The City of Los Altos is located within the Bay Area Air Quality Management District (BAAQMD). The district is governed by a 21-member Board of Directors, responsible for developing and enforcing regulations to control air pollution. Air pollutants regulated by the district include:

- Particulate matter;
- Organic compounds;
- Nitrogen oxides;
- Sulfur dioxide/oxides;
- Carbon monoxide;
- Hydrogen sulfide;
- Photochemical smog; and
- Acid deposition.

The generation of air pollutants degrade the air quality and can pose a significant health hazard. Air pollutants are closely linked to land use, transportation, and energy use planning. Daily automobile travel from suburban areas to the employment centers of Santa Clara County is the primary cause of air pollution in the subregion. Planning that can reduce the overall vehicle miles traveled (VMT) will also reduce the amount of air pollutants generated. In addition, air movement patterns in the Bay Area carry air pollutants from north to south. The Santa Clara Valley thereby receives the accumulated air pollution from its neighbors to the north.

The Bay Area experienced 12 days of ozone non-attainment in 2000, down from 20 days in 1999. The monitoring station in Mountain View near Los Altos registered seven days of ozone non-attainment in 1999 and the monitoring station was out of service in 2000. Unless federal legislation is changed, non-compliance with federal standards means that the Environmental Protection Agency will cease funding for clean-up of air pollution, ban construction of wastewater treatment facilities, and cease highway funding.

Air pollution problems in Los Altos are a result of activities in the entire Bay region and cannot be solved at the local level. However, through appropriate land use, transportation, and energy use planning, the City can participate in the most feasible remedies.

Cooperation among all agencies in the BAAQMD is necessary to achieve desired improvements to air quality. Los Altos can participate and contribute its share in those efforts by proper planning for land use and transportation consistent with the most recent Air Quality Management Plan.

ISSUES, GOALS AND POLICIES

Certain natural conditions and human activities in Los Altos create risks to individuals and property within the community. Excessive risk and impact from such hazards can be reduced or avoided through implementation of the Natural Environment & Hazards Element.

Major issues addressed by the goals, policies, and plan of the Natural Environment & Hazards Element are as follows:

1) Minimizing impacts associated with stationary and transportation-related noise sources; and

2) Reducing impacts associated with air pollutants.

Noise

Certain areas within Los Altos are subject to high noise levels. The primary noise source impacting Los Altos results from transportation-related activities, especially along major transportation corridors. Other noise sources not related to transportation include construction, business operation, recreational activities, and property maintenance. Consideration of the sources and recipients of noise early in the land use planning and development process can be an effective method of minimizing the impact of noise on people in the community. Consideration may be given to reducing noise in areas already impacted by noise through rehabilitative improvements and enforcement of local noise regulations.

Goal 7:

Minimize the amount of noise to which the community is exposed and the amount of noise created by future development and urban activities.

Policy 7.1: Ensure that new development can be made compatible with the noise environment by utilizing noise/land use compatibility standards and the Noise Contours Map as a guide for future planning and development decisions.

Policy 7.2: Enforce the following maximum acceptable noise levels for new construction of various noise-sensitive uses in an existing noise environment.

- 60 dBA CNEL is the maximum acceptable outdoor noise exposure level for single-family residential areas.
- 65 dBA CNEL is the maximum acceptable outdoor noise exposure level for multiple-family residential areas.
- 70 dBA CNEL is the maximum acceptable outdoor noise exposure level for schools (public and private), libraries, churches, hospitals, nursing homes, parks, commercial, and recreation areas. Excepted from these standards are golf courses, stables, water recreation, and cemeteries.

Policy 7.3: Work to achieve indoor noise levels not exceeding 45 dBA CNEL in the event that outdoor acceptable noise exposure levels cannot be achieved by various noise attenuation mitigation measures.

Policy 7.4: Consider the potential impact on the general noise level when planning changes and improvements to the circulation system.

Policy 7.5: Require reasonable mitigation measures to reduce noise levels to those

determined to be acceptable in the event that significant increased noise levels will result from an improvement to the circulation system.

Policy 7.6: Consider noise attenuation measures to reduce noise levels to City-adopted acceptable levels for any development along roadways.

Policy 7.7: Require the inclusion of design features in development and reuse/revitalization projects to reduce the impact of noise on residential development.

Policy 7.8: Require an acoustical analysis for new construction and in areas with a higher than established noise levels.

Policy 7.9: Minimize stationary noise sources and noise emanating from construction activities.

Policy 7.10: Publicize and enforce local noise regulations to reduce nuisance noises related to private developments and residences.

Air Quality

Los Altos is located within the Bay Area Air Quality Management District, which is considered a non-attainment air basin since it exceeds some of the allowable levels for various air pollutants. Cooperation among all agencies in the district is necessary to achieve desired improvements to air quality. Los Altos can participate and contribute its share in those efforts by proper planning for land use and transportation.

Goal 8:

Maintain or improve air quality in Los Altos.

Policy 8.1: Support the principles of reducing air pollutants through land use, transportation, and energy use planning.

Policy 8.2 Encourage transportation modes that minimize contaminant emissions from motor vehicle use.

Policy 8.3: Interpret and implement the General Plan to be consistent with the regional Bay Area Air Quality Management Plan, as periodically updated.

Policy 8.4: Ensure location and design of development projects so as to conserve air quality and minimize direct and indirect emissions of air contaminants.

IMPLEMENTATION PROGRAMS APPENDIX

The Implementation Programs Appendix provides a guide to implement adopted General Plan policies and plans for City elected officials, staff and the public. The purpose of the Implementation Programs are to ensure the overall direction provided in the General Plan for City growth and development is translated from general terms to specific actions.

Each implementation program is a measure, procedure, or technique that requires additional City action. This action may either occur on a City-wide basis or in specific areas within the City. The City Council, by relating the Implementation Programs to the General Plan, recognizes the importance of long-range planning considerations in day-to-day decision making and budgeting. Implementation of the specific program.

Use of the General Plan Implementation Program

The Implementation Programs are intended for use in preparing the Annual Report to the City Council on the status of the City's progress in implementing the General Plan, as described in Section 65400 of the California Government Code. Because some of the individual actions and programs described in the Implementation Programs Appendix act as mitigation for significant environmental impacts resulting from planned development identified in the General Plan, the annual report can also provide a means of monitoring the application of the mitigation measures as required by Section 15097 of the State CEQA Guidelines. This Implementation Programs Appendix may be updated annually with the budget process and whenever the City's General Plan is amended or updated to ensure continued consistency and usefulness.

Natural Environment & Hazards

Ensure that new development is exposed to a This Implementation Program provides actions to implement the adopted policies and plans identified in the Natural Environment & Hazards Element. The Natural Environment & Hazards Implementation Program is a series of actions, procedures and techniques which includes a description of the responsible agency/department, funding source, time frame and related policies in the Natural Environment & Hazards Element.

Noise

NEH 21: Compatible Development

Use noise and land use compatibility standards to guide future planning and development decisions. Table 1 in the Noise and Air Quality Element summarizes the standard for acceptable noise levels by land use types. Review development proposals to ensure that the City's noise standards and compatibility criteria are met. Require mitigation measures, where necessary, to reduce noise levels to meet these standards and criteria.

Responsible Agency/Department: Community Development
Funding Source: Development fees
Time Frame: Ongoing
Related Policies: NEH 7.1

NEH 22: Acceptable Noise Levels for New Development

Ensure that new development is exposed to acceptable noise levels. Require acoustical analyses for all for all proposed development within the 60 dB CNEL contour as shown on **Table 3**, Future Noise Contours in the Natural Environment & Hazards Element. Also require acoustical analyses for selected proposed residential projects in the vicinity of existing and proposed commercial areas that may generate excessive noise. Where the noise analyses indicates that the City's noise standards will be exceeded, require noise control measures to be incorporated into the proposed development to reduce noise to acceptable levels. Noise control measures may include berms, walls, and sound attenuating architectural design and construction methods. Only permit new development if the noise standards and the City's Noise Ordinance can be met.

Responsible Agency/Department: Community Development
Funding Source: Development fees
Time Frame: Ongoing
Related Policies: NEH 7.2

NEH 23: Noise Insulation Standards

Enforce the provisions of the State of California Noise Insulation Standards (Title 24) that specify that indoor noise levels for multi-family residential living spaces shall not exceed 45 dB CNEL. The Title 24 noise standard is defined as the combined effect of all noise sources and is implemented when existing or future exterior noise levels exceed 60 dB CNEL. **Table 3**, Future Noise Contours, will be used to determine where exterior noise levels exceed 60 dB CNEL. Title 24 requires that the standard be applied to all new hotels, motels, apartment houses and dwellings other than single-family dwellings. Also apply the standard to single-family dwellings and condominium conversion projects as official policy.

Responsible Agency/Department: Community Development
Funding Source: Development Fees
Time Frame: Ongoing
Related Policies: NEH 7.3

NEH 24: Noise Ordinance Implementation and Enforcement

Implement and enforce the City's Noise Ordinance to protect residents from excessive noise levels.

Responsible Agency/Department: Community Development, Public Works, Police
Funding Source: General Fund
Time Frame: Ongoing
Related Policies: NEH 7.10

NEH 25: Reduce Roadway Noise

Reduce noise impacts from transportation activity to enhance the quality of the community. Incorporate noise control measures, such as sound walls and berms, into roadway improvement projects to mitigate impacts to adjacent development. Request Caltrans and the Santa Clara County Transportation Agencies to provide noise control for roadway projects within the Planning Area. Particularly advocate reducing noise impacts from the list of major noise sources.

Responsible Agency/Department: Public Works, Community Development
Funding Source: General Fund, development fees, gas tax revenues
Time Frame: Ongoing
Related Policies: NEH 7.5, NEH 7.6

NEH 26: Minimize Vehicle, Bus and Truck Noise

Coordinate with the Police Department, Santa Clara County Sheriffs Department and the California Highway Patrol to enforce the California Vehicle Code pertaining to noise standards for cars, trucks and motorcycles. Periodically review truck and bus routes in the Planning Area for noise impacts to residential and other sensitive land uses. Where noise impacts are identified from truck traffic, modify the designated truck routes to avoid impacts. Where impacts are identified from bus traffic, recommend alternative routes to the Santa Clara County Transportation Authority.

Responsible Agency/Department: Public Works, Police
Funding Source: General Fund
Time Frame: Ongoing
Related Policies: NEH 7.5, NEH 7.6

NEH 27: Minimize Commercial Noise

Amend the City Noise Ordinance to limit delivery hours for stores with loading areas or docks that front, side, border or gain access on driveways next to residential and other noise sensitive areas. Only approve exceptions if full compliance with the nighttime limits of the noise ordinance is achieved.

Responsible Agency/Department: Community Development
Funding Source: General Fund
Time Frame: Ongoing
Related Policies: NEH 7.8, NEH 7.9

NEH 28: Minimize Construction Noise

Require all construction activity to comply with the limits established in the City Noise Ordinance.

Responsible Agency/Department: Community Development
Funding Source: Development fees
Time Frame: Ongoing
Related Policies: NEH 7.9

Air Quality

NEH 29: Minimize Impacts of New Development

Review development proposals for potential impacts pursuant to CEQA and the BAAQMD Air Quality Handbook. Reduce impacts of new development using available land use and transportation planning techniques such as:

1) Incorporation of public transit stops;
2) Pedestrian and bicycle linkage to commercial centers, employment centers, schools, and parks;
3) Preferential parking for car pools;
4) Traffic flow improvements; and
5) Employer trip reduction programs.

Responsible Agency/Department: Community Development, Public Works
Funding Source: Development fees
Time Frame: Ongoing
Related Policies: NEH 8.1, NEH 8.4

NEH 30: Participation in Regional Air Quality Programs

Work with the BAAQMD and ABAG and to meet federal and State air quality standards for all pollutants. To ensure that new measures can be practically enforced in the region, participate in future amendments and updates of the BAAQMP.

Responsible Agency/Department: Community Development, Public Works
Funding Source: General Fund, BAAQMD Revenue
Time Frame: Ongoing
Related Policies: NEH 8.1, NEH 8.2, NEH 8.3