

MEMORANDUM

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SUBJECT City of Cupertino Health and Safety Element Update – Study Session Memo

Introduction

The Health and Safety Element is a State-mandated element of the General Plan that addresses the threats posed by natural and human-caused hazards to Cupertino and establishes goals and policies to reduce risk to the community. The current Health and Safety Element was adopted in 2014. Since that time, State law has expanded requirements related to wildfire, flooding, climate change adaptation, and evacuation planning.

The California Government Code requires all local jurisdictions to review and, as necessary, update their Safety Element upon each revision of the Housing Element or Local Hazard Mitigation Plan (LHMP), or at least once every eight years. The City adopted updates to the Housing Element and the Santa Clara County Multijurisdictional Hazard Mitigation Plan, including the City's Annex, in 2024, triggering this update.

The updated Health and Safety Element ensures compliance with current State law, integrates climate vulnerability findings, incorporates detailed evacuation capacity analysis and mapping, reflects updated wildfire hazard designations, and strengthens policies addressing both new and existing development across all major hazard categories. This memorandum summarizes the applicable California Government Code requirements, describes how the updated draft Health and Safety Element (see Attachment 2) satisfies those requirements, highlights key updates in the draft, and outlines next steps prior to formal review and public hearings.

In 2025, City and PlaceWorks staff presented the Health and Safety Element Update to the Planning Commission and Public Safety Commission during scheduled study sessions. Commissioners and members of the public provided comments and direction on several policy areas, including clarification of distinctions between new and existing development standards, evacuation planning and emergency access, wildfire risk reduction and defensible space, emergency preparedness staffing and coordination, and climate resilience strategies. The current draft Health and Safety Element reflects revisions to policies and implementation measures in response to those discussions.

Regulatory Framework

UPDATES TO SAFETY ELEMENT STATE LAW SINCE 2015

Since adoption of the 2014 Health and Safety Element, amendments to Government Code Section 65302(g) have expanded local requirements related to wildfire, flooding, climate change adaptation, and evacuation planning. In particular, legislation enacted through Senate Bill (SB) 1241 (2012), SB 379 (2015), SB 99, (2019), Assembly Bill (AB) 747 (2019), AB 1409 (2021), and AB 2684 (2024) strengthened requirements for wildfire risk reduction, climate vulnerability assessment, evacuation route analysis, and extreme heat planning. SB 1241 was adopted in 2012, prior to adoption of the 2014 Health and Safety Element; however, guidance for compliance with its requirements has evolved as the State's fire protection codes and regulations have strengthened. This update ensures compliance with current guidance from CAL FIRE and best practices. The proposed draft Health and Safety Element ensures compliance with current State law requirements and incorporates expanded provisions related to wildfire, flooding, climate adaptation, and evacuation planning. The proposed draft Element addresses the following sections of Government Code Section 65302.

Section 65302(g)(2) – Flood Hazards

The 2014 Health and Safety Element includes limited flood-related policies and background discussion. The updated Element expands the flood hazard section to incorporate updated mapping, current flood risk data, and identification of responsible flood control agencies and coordination mechanisms. It strengthens policies addressing flood risk reduction and incorporates resilience strategies applicable to both existing and future development in flood-prone areas. The revised section also contains policies to reduce potential flood impacts to critical infrastructure and essential facilities, consistent with current statutory requirements.

Section 65302(g)(3) – Fire Hazards (SB 1241, adopted in 2012)

The 2014 Health and Safety Element includes general wildfire protection policies but does not reflect updated State mapping or current wildfire risk conditions. The updated Element incorporates the most recent Fire Hazard Severity Zone (FHSZ) mapping for both Local Responsibility Area (LRA) and State Responsibility Area (SRA) lands and updates the Wildland-Urban Interface Fire Area framework, replacing prior mapping references in the 2014 Health and Safety Element to ensure consistency with current State designations.

Consistent with the City's June 2025 adoption of the updated LRA FHSZ map into Cupertino Municipal Code Chapter 16.74 (Wildland Urban Interface Fire Area), the draft Element specifies that where a parcel is mapped within multiple FHSZ designations (such as Moderate and High), the parcel is subject to the requirements associated with the highest mapped severity. This approach ensures consistency with the City's adopted ordinance and supports clear, uniform implementation of wildfire risk reduction measures.

The updated draft Element also provides expanded background information on wildfire conditions, identifies responsible fire protection agencies, and strengthens policies designed to reduce wildfire risk to new development and essential facilities.

Section 65302(g)(4) – Climate Change Adaptation (SB 379, adopted in 2015)

The 2014 Health and Safety Element does not include a formal climate change vulnerability assessment as required under SB 379. The updated draft Element integrates the City’s vulnerability assessment findings and expands discussion of climate-related hazards, including extreme heat. It identifies populations and infrastructure who are most vulnerable to these hazards and incorporates new goals, policies, and implementation measures focused on adaptation and resilience, consistent with current State law.

Section 65302(g)(5) – Evacuation Constraints (SB 99, adopted in 2019)

The 2014 Health and Safety Element does not identify residential parcels in hazard-prone areas that lack sufficient emergency access. The updated draft Element addresses this requirement through parcel-level analysis of residential street accessibility to identify parcels located in hazard areas with limited egress routes. This analysis is incorporated into the draft Element and informed development of policies supporting improved emergency access planning and coordination with emergency management agencies to reduce evacuation risk.

Section 65302.15 – Evacuation Routes and Scenarios (AB 747, adopted in 2019; and AB 1409, adopted in 2021)

The 2014 Health and Safety Element does not include evaluation of evacuation route capacity, safety, or viability under multiple hazard scenarios. The proposed draft Element incorporates findings from the 2025 Evacuation Route Capacity Assessment (refer to Attachment 3) and identifies primary evacuation routes and gateways. It evaluates route performance under wildfire, earthquake, and combined hazard scenarios and integrates evacuation considerations into land use and development policies to ensure consistency with statutory requirements.

Section 65302.01 – Extreme Heat (AB 2684, adopted in 2024)

Government Code Section 65302.01, enacted through AB 2684, requires that upon the next update of one or more General Plan elements on or after January 1, 2028, a city or county must review and update its Safety Element, as necessary, to address the hazard of extreme heat. The statute authorizes a jurisdiction that has adopted an Extreme Heat Action Plan or other document that fulfills commensurate goals and objectives to use that information to comply with this requirement. If doing so, the jurisdiction must summarize and incorporate that plan into the Safety Element. The statute also allows the use or reference of information contained in the State Extreme Heat Action Plan and the State Hazard Mitigation Plan. After this initial update, the planning agency must review and, if necessary, revise the Safety Element upon each revision of the Housing Element or LHMP, but not less than once every eight years, to identify new information relating to extreme heat hazards that was not available during the previous revision. The proposed draft Element includes policies and actions to mitigate extreme heat.

Summary of Key Updates

The updated draft Health and Safety Element provides revised background information for applicable hazards and associated updated mapping and updated goals, policies, and strategies. The draft element is supported by updated appendices and the City’s 2025 Evacuation Route Capacity Assessment, which evaluates evacuation demand, route capacity, and performance under multiple hazard scenarios. The updated policies and strategies in the draft Health and Safety Element are organized by nine goals:

- Goal HS-1: Reduce hazard risks through regional coordination and mitigation planning.

- Goal HS-2: Ensure a high level of emergency preparedness for natural and human-caused disasters.
- Goal HS-3: Protect the community from hazards associated with wildland and urban fires.
- Goal HS-4: Ensure high levels of community safety with police services that meet the community's needs.
- Goal HS-5: Reduce risks associated with geologic and seismic hazards.
- Goal HS-6: Protect people and property from the risks associated with hazardous materials and exposure to electromagnetic fields.
- Goal HS-7: Protect people and property from risks associated with floods.
- Goal HS-8: Minimize noise impacts on the community and maintain a compatible noise environment for existing and future land use.
- Goal HS-9: Increase community resilience to climate change hazards.

The draft element represents a comprehensive update of all sections and hazards. This section describes key updates to each hazard section in response to State requirements.

EMERGENCY PREPAREDNESS AND INFRASTRUCTURE RESILIENCE

The Emergency Preparedness and Response section has been strengthened to reflect current best practices and recent operational experience. The updated draft Element expands discussion of emergency communications, multilingual alert systems, and coordination with regional and County agencies. It also updates and includes new policies supporting the resilience of critical infrastructure, including energy, telecommunications, water, and transportation systems, and addresses potential impacts associated with Public Safety Power Shutoffs and other service disruptions. In addition, the updated draft Element incorporates policies and strategies designed to improve emergency preparedness and response for vulnerable populations, including individuals with disabilities, seniors, low-income households, and persons experiencing homelessness. These policies support expanded outreach, education, continuity planning, and access to emergency resources during hazard events.

EVACUATION PLANNING AND EMERGENCY ACCESS

To comply with Sections 65302(g)(5) and 65302.15 of the California Government Code, the City worked with Fehr & Peers to prepare the 2025 Evacuation Route Capacity Assessment. The assessment evaluated evacuation demand and route performance under wildfire, earthquake, and combined hazard scenarios. This study is meant to be a high-level “worst case” study of community-wide evacuation challenges to determine potential constraints and inform General Plan policies to improve the effectiveness of evacuations. It is not intended to be a predictive study of how a particular evacuation case is most likely to occur.

The modeling indicated that certain primary corridors west of SR-85 may experience congestion under peak evacuation conditions. The exact levels of constraint varied by scenario, but parts of Foothill Boulevard, Stevens Creek Boulevard, Rainbow Drive, and McClellan Road generally had the highest levels of constraint. The analysis also identified the potential for localized bottlenecks during high-demand evacuation events, particularly where roadway geometry, signalized intersections, or merging conditions constrain traffic flow. These bottlenecks may occur during single-hazard events and could be exacerbated under compounded

hazard scenarios. The analysis also identified a small percentage of households that may require evacuation assistance due to mobility limitations or lack of access to private vehicles.

The updated Health and Safety Element incorporates these findings by identifying evacuation-constrained areas and including policies that reinforce ingress and egress considerations in development review, support provision of multiple evacuation routes where feasible, and support coordination with emergency management agencies to improve evacuation planning and response.

WILDFIRE HAZARD MAPPING AND RISK REDUCTION

The updated Health and Safety Element incorporates the most recent FHSZ mapping prepared by CAL FIRE and adopted by the City in June 2025 through amendments to Cupertino Municipal Code Chapter 16.74 (Wildland Urban Interface Fire Area). Local Responsibility Area FHSZ maps classify properties as Moderate, High, or Very High Fire Hazard Severity based on consistent statewide criteria, including fuel loading, slope, fire weather, and anticipated fire behavior. During the 2025 LRA map adoption process, the City revised parcel-level designations to ensure that only one FHSZ applies to each affected parcel. Where CAL FIRE mapping identified more than one severity zone on a single parcel, the City applied the higher of the mapped designations to ensure clarity and consistency in implementation of fire hazard reduction standards. As part of the Safety Element update, the prior Wildland-Urban Interface Fire Area (WUIFA) mapping framework has been replaced by the Local Responsibility Area FHSZ designations adopted in 2025. Rather than maintaining a separate locally defined overlay, the City now relies on the Local Responsibility Area FHSZ boundaries as the regulatory basis for wildfire-related development standards.

The proposed draft Health and Safety Element revises wildfire-related policies and strategies to align with CAL FIRE's standard recommendations for existing and new development within High and Very High FHSZs. These revisions clarify defensible space requirements, ignition-resistant construction standards, vegetation management expectations, and other wildfire risk reduction measures applicable within the FHSZs.

SEISMIC AND GEOLOGIC HAZARDS

The seismic and geologic hazards section has been updated to reflect current mapping, regulatory requirements, and best practices. The revised draft Element updates and refines policies addressing fault rupture, ground shaking, liquefaction, landslide, and slope stability hazards. The section also acknowledges the potential for cascading impacts associated with seismic events, including infrastructure disruption, utility outages, and damage to transportation networks that may affect evacuation routes, emergency access, and delivery of critical services.

HAZARDOUS WASTE AND MATERIALS

The Hazardous Waste and Materials section has been updated to reflect current regulatory oversight and strengthen policies requiring environmental site assessment and mitigation where appropriate. The revised section reinforces coordination with State and regional regulatory agencies and maintains risk reduction measures for development in proximity to known hazardous materials sites.

FLOOD AND INUNDATION HAZARDS

The flood hazard section has been revised to incorporate updated Federal Emergency Management Agency Flood Insurance Rate Map data and dam failure and inundation mapping. The updated draft Element

strengthens coordination with flood control agencies and updates and refines policies addressing risk reduction for both existing and future development in flood-prone areas, including protection of critical infrastructure and essential facilities. The revised section also strengthens policies addressing risk to essential facilities in flood-prone areas, consistent with State requirements. Emergency response and continuity considerations associated with flood and dam failure events have also been reinforced.

NOISE

A noise element is a required element of the General Plan, but it is not a required component of a safety element or this comprehensive update. In Cupertino, the noise element is incorporated into the Health and Safety Element. Minor updates have been made to the noise element to ensure consistency with current municipal requirements and requests shared by the Planning Commission and Public Safety Commission during the 2025 study sessions. For example, the proposed revisions to the noise section include new implementation strategies regarding considerations for approval of new noise generating uses, including public and private recreational uses, in or near residential areas and consideration of restrictions for quarry trucks during quiet hours.

CLIMATE CHANGE AND VULNERABILITY INTEGRATION

Consistent with California Government Code Section 65302(g)(4), the updated Health and Safety Element incorporates a comprehensive climate change vulnerability assessment. The assessment identified flooding, extreme heat, and wildfire as the climate change-related hazards posing the greatest risk to Cupertino's residents and infrastructure.

The 2014 Element did not include a formal climate vulnerability assessment or a focused discussion of extreme heat. The updated Element addresses this gap by establishing a Climate Change Resilience section, within which extreme heat is evaluated as a distinct climate-driven hazard. The Vulnerability Assessment evaluated eight climate-related hazards across 45 population groups and community assets and found that residents are particularly vulnerable to extreme heat, flooding, and human health hazards. The most vulnerable populations include individuals with chronic illness or disabilities, seniors living alone, households in poverty, and persons experiencing homelessness.

The assessment also identified key infrastructure systems as highly vulnerable, including energy and communication infrastructure, the transportation network and public transit services, and water and wastewater systems, which may be disrupted by flooding, extreme heat events, severe storms, or wildfire-related Public Safety Power Shutoffs.

In response, the updated Element introduces goals, policies, and strategies specifically designed to reduce risks to these populations and assets. In addition, climate considerations are integrated throughout the individual wildfire and flood hazard sections to ensure alignment between vulnerability findings and hazard mitigation strategies. The updated Element also incorporates adaptation strategies that strengthen resilience across multiple hazards, including community resilience centers, green infrastructure and other nature-based solutions, water conservation measures, and strategies that reduce long-term exposure to heat, wildfire, and flood risk.

CLARIFICATION OF NEW AND EXISTING DEVELOPMENT STANDARDS

The updated draft Health and Safety Element establishes a clear distinction within its policies between regulatory standards applicable to new development and redevelopment and risk reduction measures applicable to existing development. Policies addressing new development and subdivisions use mandatory language and require compliance with current Building and Fire Codes, FHSZ standards, fire protection planning requirements, seismic and geologic review processes, and evacuation access standards. These policies also condition approval of new development on adequate emergency access, fire service capacity, and infrastructure improvements proportional to project demand.

In contrast, policies addressing existing development primarily encourage voluntary risk reduction measures, such as enhanced shading, energy-efficient retrofits, and resilience improvements, except in defined circumstances such as substantial site modification or change of use. This structure provides clarity regarding regulatory obligations for new projects while supporting risk reduction in existing neighborhoods without imposing retroactive development standards.

This distinction supports transparent and predictable implementation during development review and aligns policy application with current State-mandated safety requirements.

CONSISTENCY WITH OTHER CITY PLANS

The updated Health and Safety Element aligns with and incorporates relevant findings from the 2024 Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan, consistent with AB 2140, as well as the Emergency Operations Plan, the Community Wildfire Protection Plan, and Climate Action Plan 2.0. Updated appendices reflect current technical analyses and hazard mapping.

STATE AGENCY REVIEW

Following incorporation of feedback from the Planning Commission and City Council, the City will transmit the draft Health and Safety Element to CAL FIRE staff for review and a formal hearing by the Board of Forestry, consistent with Government Code requirements applicable to jurisdictions containing Very High FHSZs. CAL FIRE review will occur prior to public hearings and could take up to 90 days.

Pursuant to Government Code Section 65302(g), jurisdictions that contain SRA lands or Very High FHSZs must submit draft Safety Element updates to CAL FIRE for review to ensure that wildfire policies are consistent with State fire hazard mapping, defensible space requirements, ignition-resistant construction standards, evacuation planning requirements, and other wildfire risk reduction provisions. CAL FIRE evaluates whether the Safety Element adequately addresses wildfire hazards and incorporates appropriate policies consistent with State law.

Following review of the Safety Element by CAL FIRE staff, the draft Element is presented to the Board of Forestry and Fire Protection for formal review and comments. The Board's action confirms whether the Safety Element meets applicable statutory wildfire planning requirements.

As required by State law, the City will also consult with the California Geological Survey (CGS) and the California Governor's Office of Emergency Services (Cal OES). CGS provides technical comments regarding seismic and geologic hazard policies, including provisions addressing earthquake fault zones, liquefaction, landslides, and other geologic risks. The purpose of this review is to ensure that the Safety Element appropriately considers available State hazard mapping and current scientific information related to

geologic and seismic hazards. Cal OES primarily provides comments regarding hazard mitigation coordination. This review supports alignment between the Safety Element and broader emergency management and hazard mitigation planning efforts.

NEXT STEPS

The project team seeks input from the Planning Commission and City Council prior to initiating formal review by State agencies and public hearings. Following study sessions and State agency review, City staff will bring the updated Health and Safety Element forward for public hearings. Staff expects to present the updated Element to the Planning Commission for consideration of an adoption recommendation to the City Council and to the City Council to consider adoption later this year.