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Safety

The Safety Element provides the City of American Canyon's goals, policies, and actions to minimize safety hazards to in and around the city. The Safety Element evaluates natural and human-caused hazards that affect existing and future development and provides guidelines for protecting the community from harm. The Safety Element describes existing and potential future conditions and sets policies to reduce risk of injury, death, property loss, and other hardships to acceptable levels.

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Introduction

Public Safety in American Canyon includes both natural and manmade hazards and the emergency response to them. The goals and policies of this element are organized around the following topics:

- Emergency Operations
- Fire Safety
- Flooding
- Geologic Hazards and Seismic
- Hazardous Waste and Materials
- Airport and Military Operations
- Climate Change
- Noise

Emergency Response and Preparedness

There are several guiding documents that help the City of American Canyon prepare for and respond to natural and manmade disasters. The Emergency Operations Plan (EOP) and community emergency preparedness program helps minimize the risk of loss of life or property in the event of a disaster.

In 2020, the American Canyon Fire Protection District and County adopted The Napa County Multijurisdictional Hazard Mitigation Plan (MJHMP), developed in accordance with the Disaster Mitigation Act of 2000 (DMA 2000) and following FEMA's Local Hazard Mitigation Plan guidance. The MJHMP uses 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 and long-term strategies, involve planning, policy changes, programs, projects, and other activities. The MJHMP evaluates hazards such as drought,

earthquakes and geologic hazards, wildfire, and flood for the City of American Canyon, and assesses how those hazards may change in the future due to climate change.

Emergency Operations Plan

The City of American Canyon Emergency Operations Plan was adopted in 2009 and covers the government responsibilities, initial and long-term response and operations, mutual aid agreements, and funding options for emergency response in American Canyon.

Community Emergency Preparedness

The City manages a comprehensive website containing information, guidance, and instruction on preparing and responding to each type of emergency the residents of American Canyon may anticipate in the future. General preparedness tips and checklists are included on the main page of the website, with links to more specific guidance, in English and Spanish, for earthquakes, flooding, wildfires, power outages, evacuation procedures, and COVID-19 safety practices.

Emergency Communications

Napa County Jurisdictions' emergency management is organized within the Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS). The Napa County EOP complies with SEMS and NIMS to coordinate with the State Emergency Plan and National Response Framework. Additionally, the City has an established system for warning and alerting the public of an emergency, and for needed coordination with other departments, agencies, organizations, and levels of government. To notify residents of emergencies, the Police and Fire Departments use the Emergency Alert System (NIXLE), integrated public alert and warning system (IPAWS), special broadcasts, the public address system, City website, City Manager's updates, Nextdoor, Facebook, non-electronic communications, and sirens. To alert and activate emergency response personnel, American Canyon uses an Emergency Operations Center (EOC) Notification List, which can only be activated by the City Manager, Police Chief, Fire Chief, or Incident Manager when a disaster occurs or threatens to occur in the city.

Emergency Operations Center (EOC)

The Napa County EOC, located at 1535 Airport Blvd, Napa, CA 94558, within the Napa County Sheriff's Office, is the central coordination point for multi-agency emergency management coordination. The purpose of a multi-agency coordination point is to provide a location to collect and disseminate information, provide a common operating picture of operational area response activities, and facilitate actions necessary to protect residents and property of Napa County during an event. Napa County has developed an EOC Plan as an annex to the County's EOP, which includes more specific operational guidance and position description for EOC roles. The American Canyon EOC is located at 911 Donaldson Way East.

The EOC exchanges information with governmental and nongovernmental agencies to maintain a comprehensive situational analysis. The EOC provides space and facilities for the centralized coordination of emergency functions (e.g., emergency operations, communications, damage assessment, public information). It is staffed with specially trained personnel and is equipped with a variety of systems and tools that aid in data collection and sharing, resource allocation, and other critical functions. *(Source: Napa County Office of Emergency Services)*

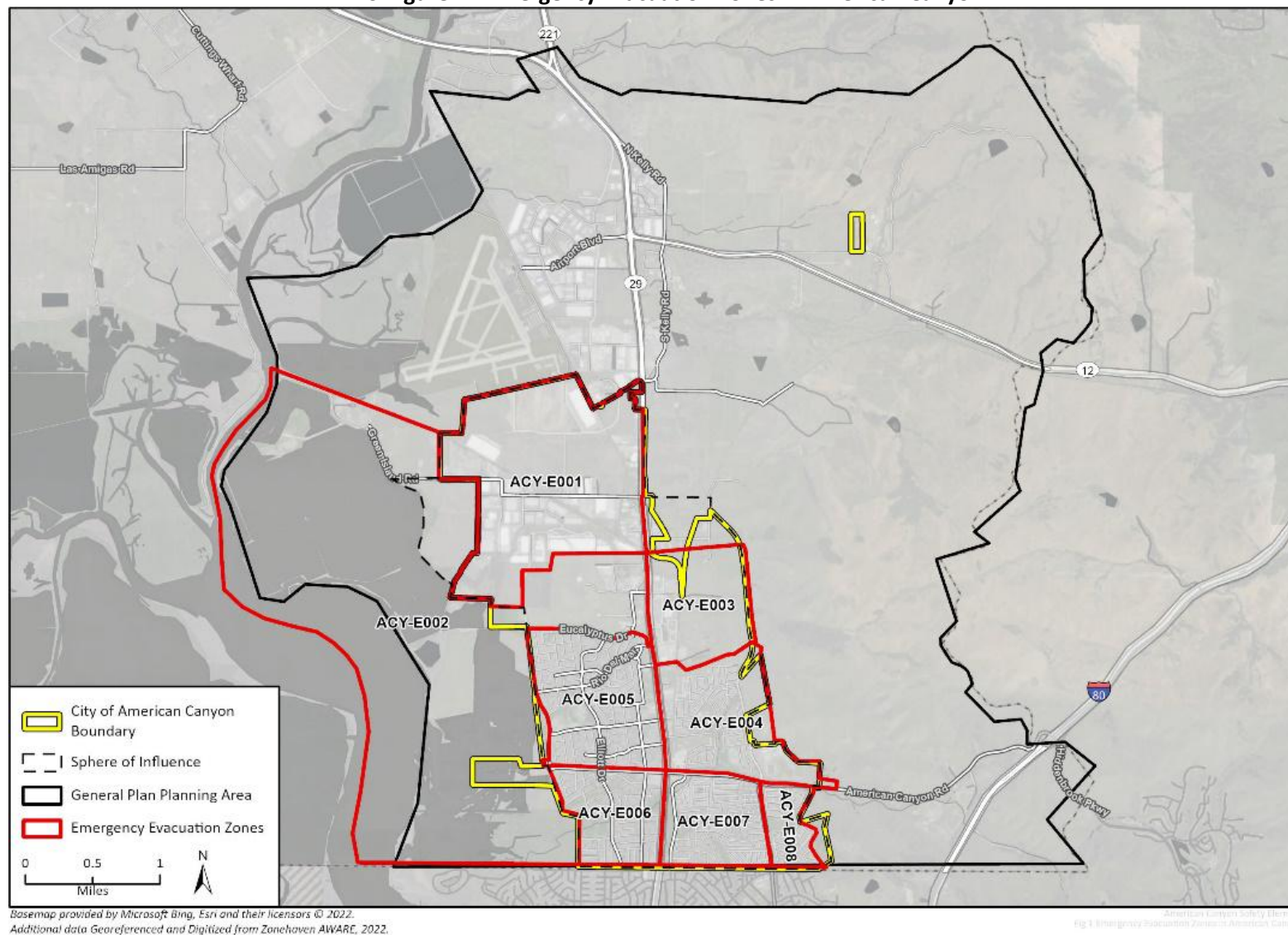
Evacuation Procedures

Evacuation may be required if a wildfire or earthquake takes place in the vicinity of homes, businesses, or gathering places. American Canyon generally operates using three levels of evacuation alerts:

- **Evacuation Advisory:** This is a precautionary notice designed to give residents time to prepare for a possible evacuation.
- **Voluntary Evacuation:** Those in the evacuation area are strongly urged to leave the area. If they choose to remain, they should be prepared to take action immediately if danger approaches.
- **Mandatory Evacuation:** Danger is imminent. Those in the evacuation area should find their Emergency Supply Kit and leave the area immediately. Should they choose to remain, they may be on their own as emergency personnel will not likely be able to help them.

Napa County and incorporated municipalities have partnered with Zonehaven to establish standardized evacuation zones for the entire county. In the past, evacuation zones were different for each incident; zones now remain consistent. American Canyon consists of eight evacuation zones, as shown in Figure 1.

S-Figure 1: Emergency Evacuation Zones in American Canyon

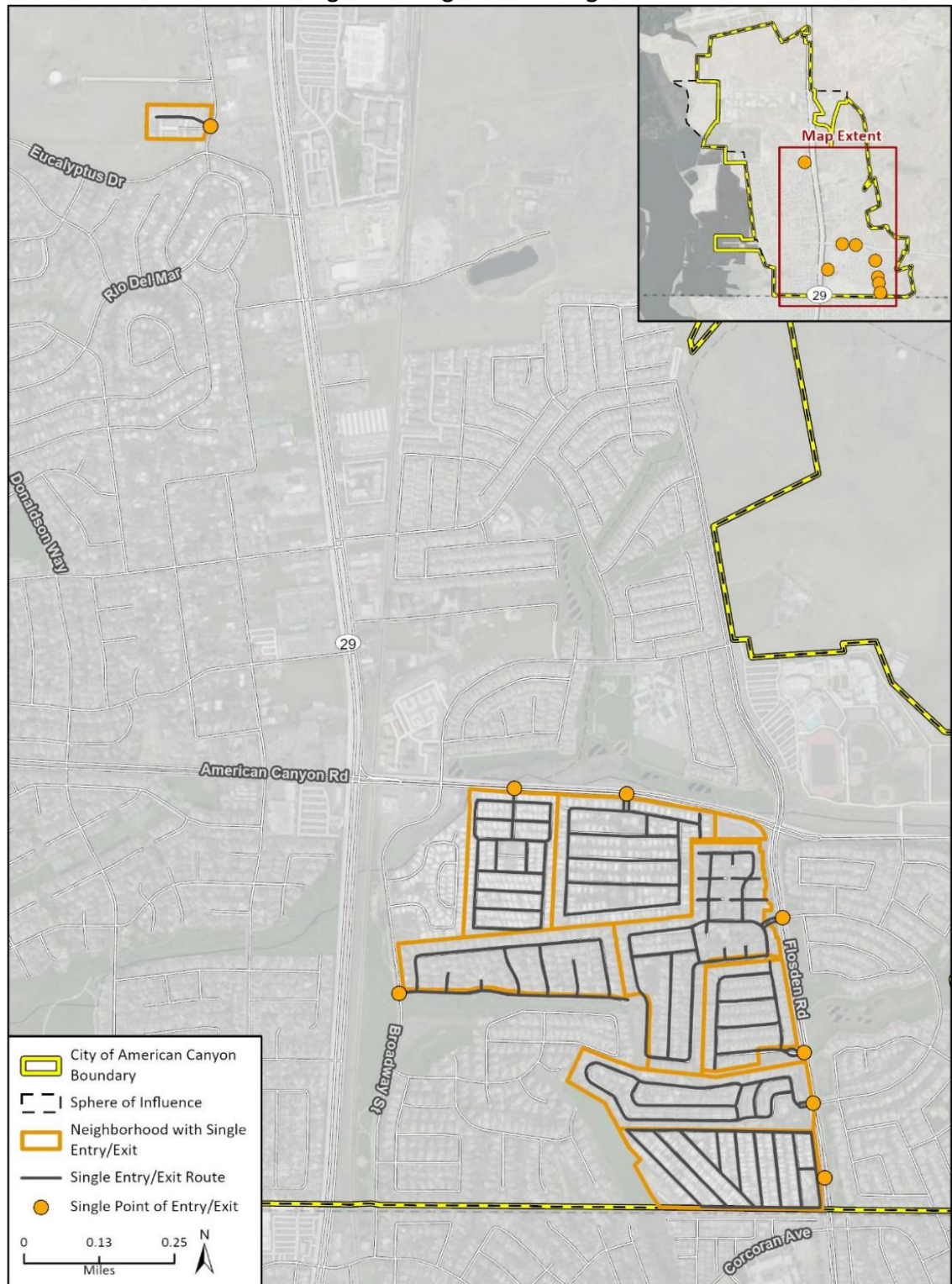


SB 99 Evacuation Analysis

Evacuation zones have been designated using Zonehaven to facilitate the movement of residents away from impacted areas before or during a disaster or hazard event. In 2019, the State adopted Senate Bill (SB) 99 which requires cities to identify residential developments in any hazard area identified in the Safety Element that do not have at least two emergency evacuation access roads. This allows the City to identify opportunities to improve evacuation capacity and connectivity for vulnerable neighborhoods. Figure 2 identifies residential neighborhoods that have a single access road for entry and exit (i.e., roads that connect to a collector or arterial road by only a single route).

There are currently eight neighborhoods in the city that have been identified as having only a single access road. Residents of these neighborhoods may be at risk during evacuation scenarios and these neighborhoods may pose significant logistical challenges. As a result, policy and implementing actions have been developed to minimize evacuation challenges for these specific neighborhoods.

S-Figure 2: Single Access Neighborhoods



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 Additional data provided by Mintier Harnish, 2022; SB 99 Routes determined by Rincon Consultants, Inc., 2022.







Fig. 2 SB 99 Evacuation Routes


Goals and Policies¹

Goal S-1:

Prepare and equip American Canyon to minimize loss of life, injury, property damage, and disruption of vital services from disasters and emergencies.

Policies

- S-1.1:** **Emergency Shelters.** Periodically coordinate with emergency shelter providers to ensure that necessary equipment and supplies are available in case of emergency. 
- S-1.2:** **Critical Facilities.** Coordinate with service providers to ensure the resilience of critical emergency facilities to serve the entire city and other jurisdictions within the region. 
- S-1.3:** **Law Enforcement.** Coordinate with the American Canyon Fire Protection District, Napa County, the State, and neighboring jurisdictions to ensure readiness and availability of emergency services and back up services. 
- S-1.4:** **Water and Sewer Service.** Ensure any interruption of utility services in the case of a disaster is minimal and short-term, including water and sewer services. 
- S-1.5:** **Business Disaster Preparedness.** Coordinate with the American Canyon Chamber of Commerce to assist local and small businesses in preparing and responding to disasters and in planning for the subsequent continuity of operations. 
- S-1.6:** **Public Training.** Encourage residents to attend periodic training programs on wildfire mitigation and disaster planning, and to develop disaster preparedness and evacuation plans for their families. 
- S-1.7:** **Public Awareness.** Increase public awareness of City and Fire District emergency response plans, evacuation routes and shelters, and ways to reduce risks at the home and office,

¹ Sustainable policies are noted with a green leaf. 

focusing on the most vulnerable populations such as older adults and individuals with chronic health conditions. Offer informational materials in multiple languages. 🌿

S-1.8: Emergency Access. Work with the American Canyon Fire Protection District (ACFPD) and the Napa County Sheriff's Department to identify and regularly evaluate emergency access routes to improve accessibility throughout the city in the event of a disaster. 🌿

S-1.9: Essential Facilities. Work with service providers to maintain the reliability of essential facilities, such as communications towers, electrical substations, water services, and first-response buildings in the event of an emergency through promoting grid resilience and energy independence. Work to implement on-site power generation through solar photovoltaic systems and battery storage. 🌿

S-1.10: Communication. Evaluate the potential to utilize a comprehensive emergency communication system to ensure effective communication between City departments, outside organizations and agencies, and with the community before, during, and to accelerate recovery following a disaster.

S-1.11: City Employee Emergency Preparedness. Increase City employee capacity to respond to emergencies through the Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS) compliant training drills to identify hazards and assist in emergency preparedness, response and recovery.

S-1.12: Local Partnerships. Coordinate with citizen groups and organizations, such as the American Canyon Community Emergency Response team (CERT) to identify, prepare for, and respond to emergency assistance in the event of a natural disaster.

S-1.13: Emergency Evacuation Protocols for Single Access Neighborhoods. Update emergency evacuation protocols and relevant evacuation plans to address and support neighborhoods with one ingress/egress route.

S-1.14: Communication and Outreach for Single Access Neighborhoods. Establish and maintain communication and outreach with the public that include tailored evacuation

messaging to residents that live in identified neighborhoods with one ingress/egress route. Outreach should include support for preventative home hardening and defensible space standards and conduct emergency preparedness and response trainings.

- S-1.15: Expand Access for Single Access Neighborhoods.** Assess options for expanding ingress/egress options for residents in the identified access-limited areas in coordination, as necessary, with Napa Valley Transportation Authority, Caltrans, California Highway Patrol, adjacent cities, and Napa County.
- S-1.16: Zone-Based Evacuation Plans.** Establish specific “zone-based” evacuation plans and protocols that address the specific needs of residents in identified areas with fewer than two ingress/egress routes.
- S-1.17: Critical Infrastructure Siting.** Whenever feasible, locate the following critical facilities outside of flood, seismic, and high fire hazard zones: health care facilities, schools, emergency shelters, fire stations, emergency command centers, and emergency communications facilities. 🌿
- S-1.18: Emergency Operations Plan.** Update the City’s Emergency Operations Plan every five years and maintain consistency with the County’s Emergency Operations Plan.
- S-1.19: Multi-Jurisdictional Hazard Mitigation Plan Updates.** Continue to fully participate in, support, and implement the five-year updates of the Napa County Multi-Jurisdictional Hazard Mitigation Plan.
- S-1.20: Funding for Critical Facilities.** Direct the dedication of funds to upgrade and maintain City owned critical facilities, including the Emergency Operations Center, fire and police departments, and City Hall, to make them more resilient to the potential impacts of natural disasters. 🌿

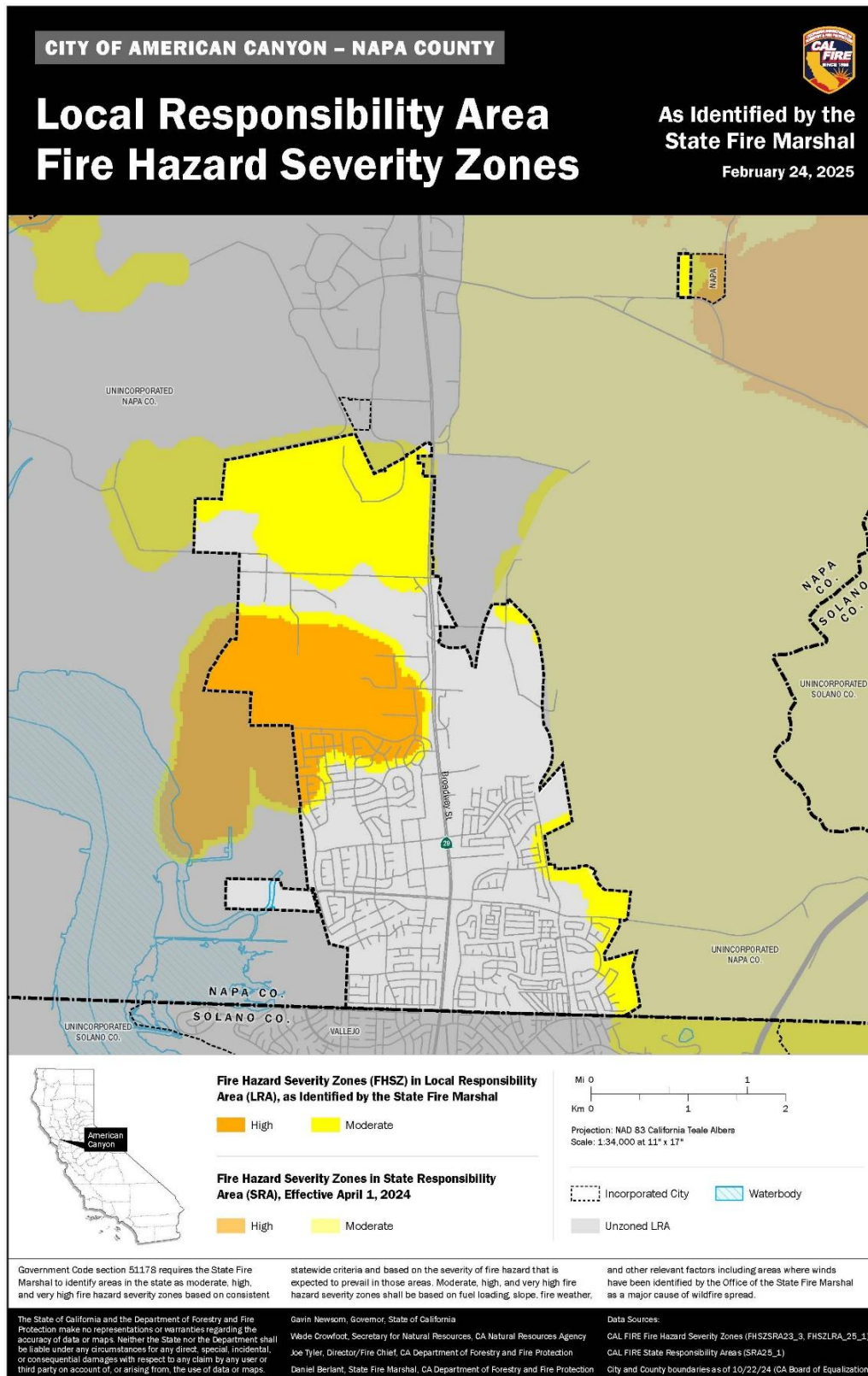
Wildfire Hazards

Wildfires are a common risk for Californians, and Napa County and American Canyon have had several nearby fires in recent history. The combination of highly flammable fuel, long dry summers and steep slopes creates a significant natural hazard for large wildland fires in many areas of Napa County. Wildland fire behavior is based on three primary factors: weather, topography, and fuel. Similarly, fires that start in urbanized areas can grow into wildland fires. Wildland/urban interface (WUI) fire hazards are especially pronounced in areas of high structure densities adjacent to undeveloped open space areas or narrow roads with dense vegetation. A WUI fire may result in death, injury, economic loss, and a large public investment in firefighting activities.

From 2000 to 2020, there were 12 wildfires that burned over 1,000 acres in Napa County. In October 2019, the American Fire caused 526 acres of open space in the eastern hills to burn, threatening the city and prompting evacuation advisories. The Atlas Fire and Nuns Fire, both in 2017, burned approximately ten miles north of American Canyon and were part of a series of destructive wildfires that occurred in the same season. Numerous other fires have caused health issues in the community from smoke, and such fire hazards are expected to continue and worsen in the future due to climate change.

The American Canyon Wildfire District provides fire protection services for the City of American Canyon. Direct wildfire risks for American Canyon are mostly on the eastern side of the city, as shown in Figure 3. As of 2020, American Canyon High School and the American Canyon Water Treatment Plant are located in high wildfire intensity zones, and approximately 1,460 people live in moderate to high wildfire intensity zones. While the urbanized areas of the city are not directly susceptible to wildland fires, development on hillsides has increased the number of homes in the WUI and fire could spread from the hillside area to urbanized areas.

S-Figure 3: Fire Severity Zones Surrounding American Canyon









Goals and Policies

Goal S-2:

A City safe and adequately prepared for urban and wildfire emergencies.

Policies

- S-2.1: Fire Safe Site Design.** Develop site design and ongoing maintenance standards for new development in the moderate and high fire hazard zones to mitigate wildfire risk, including implementing minimum road widths and clearances to ensure adequate space for emergency vehicles. 🌿
- S-2.2: Utility Undergrounding.** Develop a comprehensive plan to underground overhead utilities in new development projects and throughout the city. 🌿
- S-2.3: Residential Evacuation Routes.** Require that all new residential development have at least two emergency evacuation routes. 🌿
- S-2.4: Public Education.** Coordinate with the American Canyon Fire Protection District to target fire safety education efforts and fire hazard reduction strategies towards the most vulnerable populations such as older adults and individuals with chronic health conditions. 🌿
- S-2.5: Fire Equipment.** Coordinate with the American Canyon Fire Protection District to ensure that all fire equipment remains operable and adequate to respond to a major disaster. 🌿
- S-2.6: Building and Fire Code Compliance.** Require new development to meet or exceed structural hardening requirements in the most current version of the California Building Codes and California Fire Code. 🌿
- S-2.7: Development Standards Update.** Incorporate relevant new legislative requirements and best practices into the City's development standards. 🌿

- S-2.8: Property and Building Improvements.** Encourage property and building owners to implement site improvements and building retrofits to bring existing non-conforming developments into conformance with contemporary fire safe standards. 
- S-2.9: Fire Protection Plans.** Coordinate with the American Canyon Fire Protection District to consider developing fire protection plan guidelines and standards for new construction projects. 
- S-2.10: Fire Suppression.** Coordinate with the Fire District to ensure adequate water supply to suppress wildfire, as part of the next Napa County Multi-jurisdictional Hazard Mitigation Plan update. 
- S-2.11: Peakload Water Supply.** Support measures to provide adequate water availability throughout the city to meet future peak fire demand during times of peak domestic demands. 
- S-2.12: Emergency Roadways.** Maintain roadways used for emergency access by emergency response vehicles as necessary and appropriate to ensure ongoing serviceability. 
- S-2.13: Community Fire Breaks.** Coordinate with the American Canyon Fire Protection District to encourage property owners to maintain fire breaks and fuel modification/reduction zones on their property. 

Flood Hazards

The Napa River is prone to seasonal flooding from November through April each year, which most severely impacts low-lying properties near the Napa River and its feeder streams. Recorded history indicates there has been recurrent flooding on the Napa River, with the most serious recent floods occurring in 2005, 1997, 1995, and 1986.

Most areas in the 100- and 500-year FEMA flood zones are located on the west side of the city and along the canal that runs east to west across the city, as shown in Figure 4. Flooding may also occur throughout the city during extreme storms, when the stormwater system is overwhelmed and cannot convey water away quickly enough. Most flooding in the city, whether from the flood zones or stormwater system, occurs during extreme storm events and is limited to localized flooding of a few inches to a few feet at most.

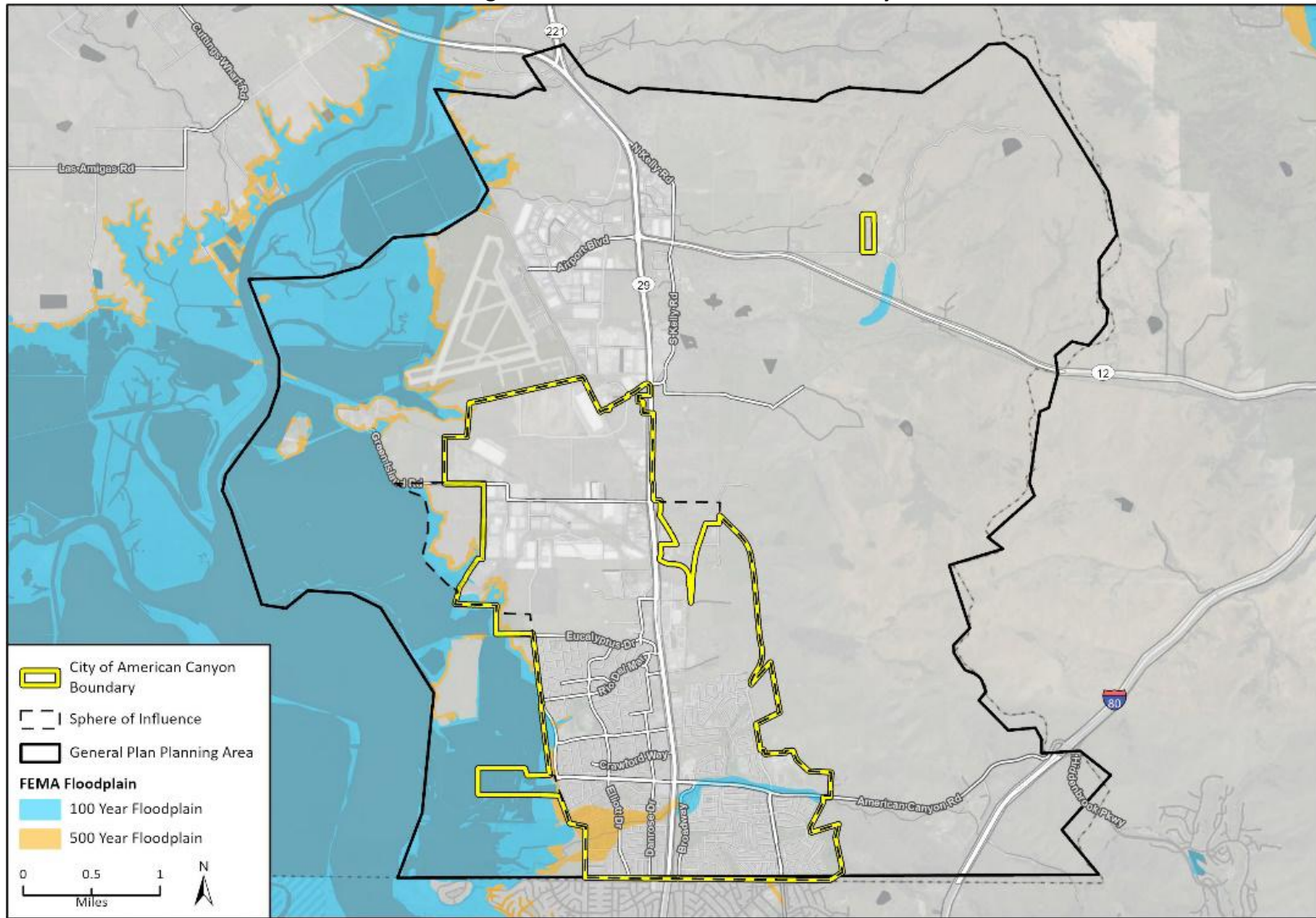
Sea Level Rise

Sea level rise is the increase in ocean levels caused by climate change. Rising global temperatures are melting glaciers and ice caps and causing an expansion of sea water. This phenomenon will lead to more extensive coastal flooding during storms and increased coastal erosion. A small area adjacent to the city's western border is projected to be affected by future sea level rise due to increased flooding from the Napa River. This area includes the American Canyon Wastewater Treatment Plant, Public Works Yard, and pump stations located along Wetlands Edge Road. This flooding would be minimal, mostly exacerbating any issues already present, with expected flooding depths of less than two feet in most storm events.

Dam Inundation

The Napa County MJHMP includes Figure 1-5: Dam Failure Exposure Summary showing the extent of potential inundation risk for American Canyon in the event of dam failure. While the City does have areas within potential inundation areas should a dam fail, the MJHMP has mitigation measures in place to cooperate with other participating jurisdictions in the assessment of local dams and coordination of warning systems if necessary.

S-Figure 4: Flood Hazards in American Canyon



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Additional data provided by FEMA, 2021; Napa County and Mintier Harnish, 2022.

American Canyon Safety Element
Fig 4 FEMA Flood Hazard in American Canyon

Goals and Policies

Goal S-3:

Protect the community from potential flood hazards.

Policies

- S-3.1: Regulatory Compliance.** Coordinate with local, State, and Federal agencies to ensure the City's flood control regulations comply with Federal, State, and local standards. 🌿
- S-3.2: FEMA Coordination.** Coordinate with the Federal Emergency Management Agency (FEMA) to ensure that Federal Insurance Rate Maps correctly depict flood hazards in the City. 🌿
- S-3.3: Changing Conditions.** Coordinate with the Bay Conservation and Development Commission (BCDC) to consider the need to expand flood control capacity caused by flood conditions associated with climate change and extreme weather. 🌿
- S-3.4: City Preventative Maintenance.** Maintain City storm drains to prevent local flooding and debris flows. 🌿
- S-3.5: Private Preventive Maintenance.** Require property owners keep natural drainage courses on their sites free of obstructions such as structures, dams, and debris, which may adversely affect stormwater drainage on the site or downstream properties. 🌿
- S-3.6: Development in Flood Zones.** Implement the standards and requirements defined in the Municipal Code to reduce hazards within the 100-year flood zone and require projects in the 100- and 500-year flood zones to incorporate adequate stormwater management and flood-prevention design measures. 🌿
- S-3.7: Reduce Flood Vulnerability.** Seek funding and assistance to protect existing structures and infrastructure that are vulnerable to flood hazards and sea level rise impacts. 🌿

- S-3.8: Protect Public Facilities.** Protect existing public infrastructure at risk from sea level rise through building retrofits and other mitigation methods. 🌿
- S-3.9: Zero Net Fill.** Establish an ordinance that requires any permit that adds fill within a floodway to demonstrate that an equal amount of fill is removed from the floodway. 🌿
- S-3.10: Sea Level Rise Mitigation.** Require new development and redevelopment within areas at risk of sea level rise to incorporate mitigation measures to address flood and erosion hazards into the project's design. 🌿
- S-3.11: Flood Protection by Wetlands.** Coordinate with resource agencies to preserve and restore wetlands in the western areas of the city to mitigate the effects of sea level rise and flood impacts. 🌿
- S-3.12: Public Facilities.** Locate, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities, or identify mitigation measures to ensure such facilities are protected from flood hazards. 🌿

Geologic and Seismic Hazards

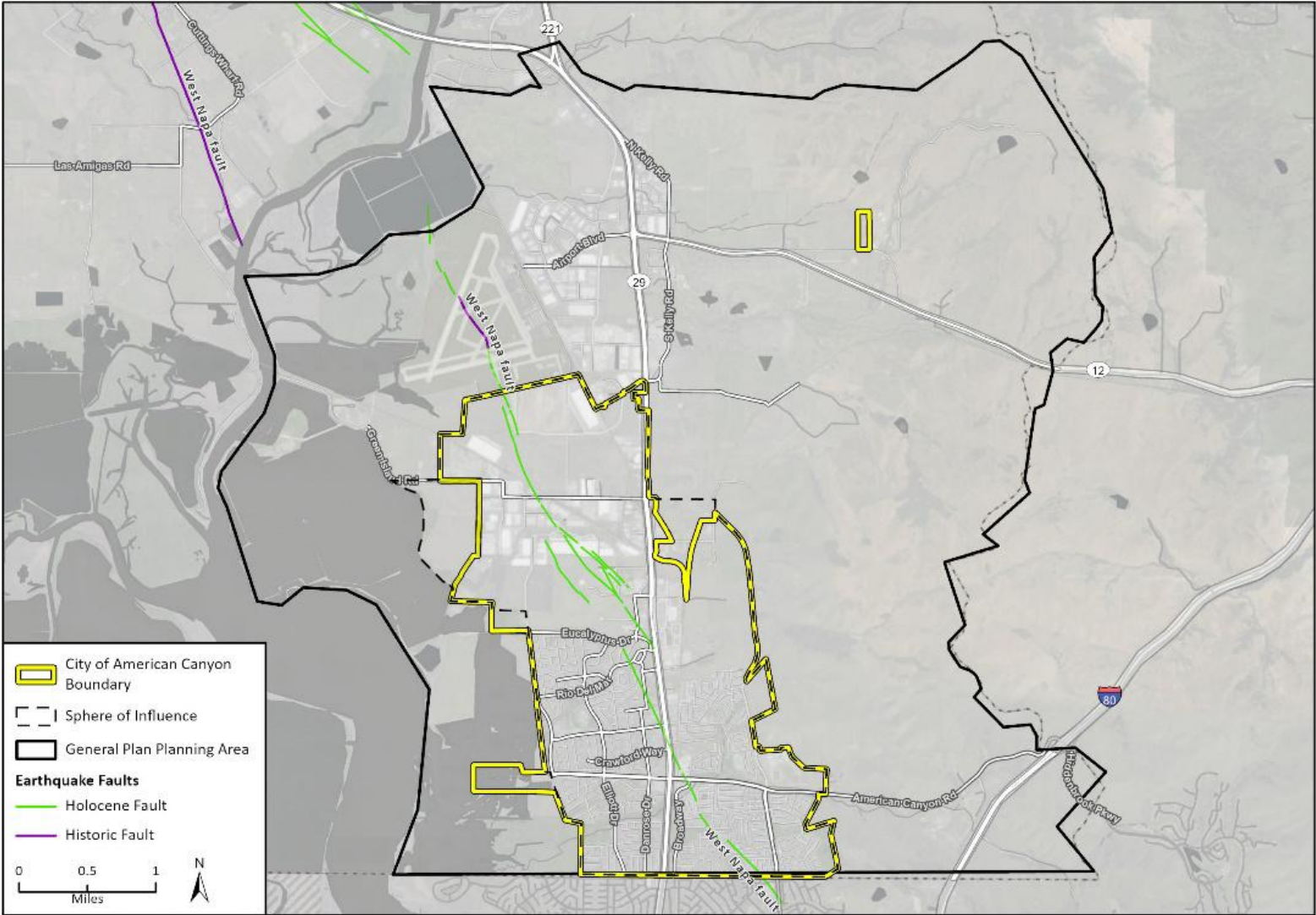
American Canyon is located near several active or potentially active earthquake faults, including the Northern Hayward/Rodgers Creek, Mayacamas, Hunting Creek-Berryessa, West Napa, and Green Valley faults. Numerous earthquakes have occurred in and near Napa County over the last twenty years. Two large-scale earthquakes in Napa County caused damage, death, and injuries over the last twenty years. In September 2000, Napa County residents experienced a 5.2 earthquake on the West Napa Fault. Damages were estimated at \$30-50 million. American Canyon is in a severe earthquake probability zone. Figure 5 shows fault lines in American Canyon. Seventy-nine critical facilities are located in earthquake hazard areas, and the water and utility distribution systems are vulnerable in the event of a severe earthquake.

Risk of landslides in American Canyon is primarily located in the eastern hills just outside of the city limits. A moderate earthquake could trigger landslides that impact development on the eastern side of the city, especially in the area south of American Canyon Road and east of Flosden Road and along Newell Drive. Figure 6 shows areas susceptible to landslide in American Canyon.

The 2014 South Napa Earthquake

The South Napa earthquake hit at approximately 3:30 a.m. on August 24, 2014, at a 6.0 on the moment magnitude scale and a maximum Mercalli intensity of VIII (severe), making it the largest bay area earthquake since the 1989 Loma Prieta earthquake. The earthquake was centered four miles northwest of American Canyon and resulted in over 200 people being injured and significant damages to buildings and infrastructure.

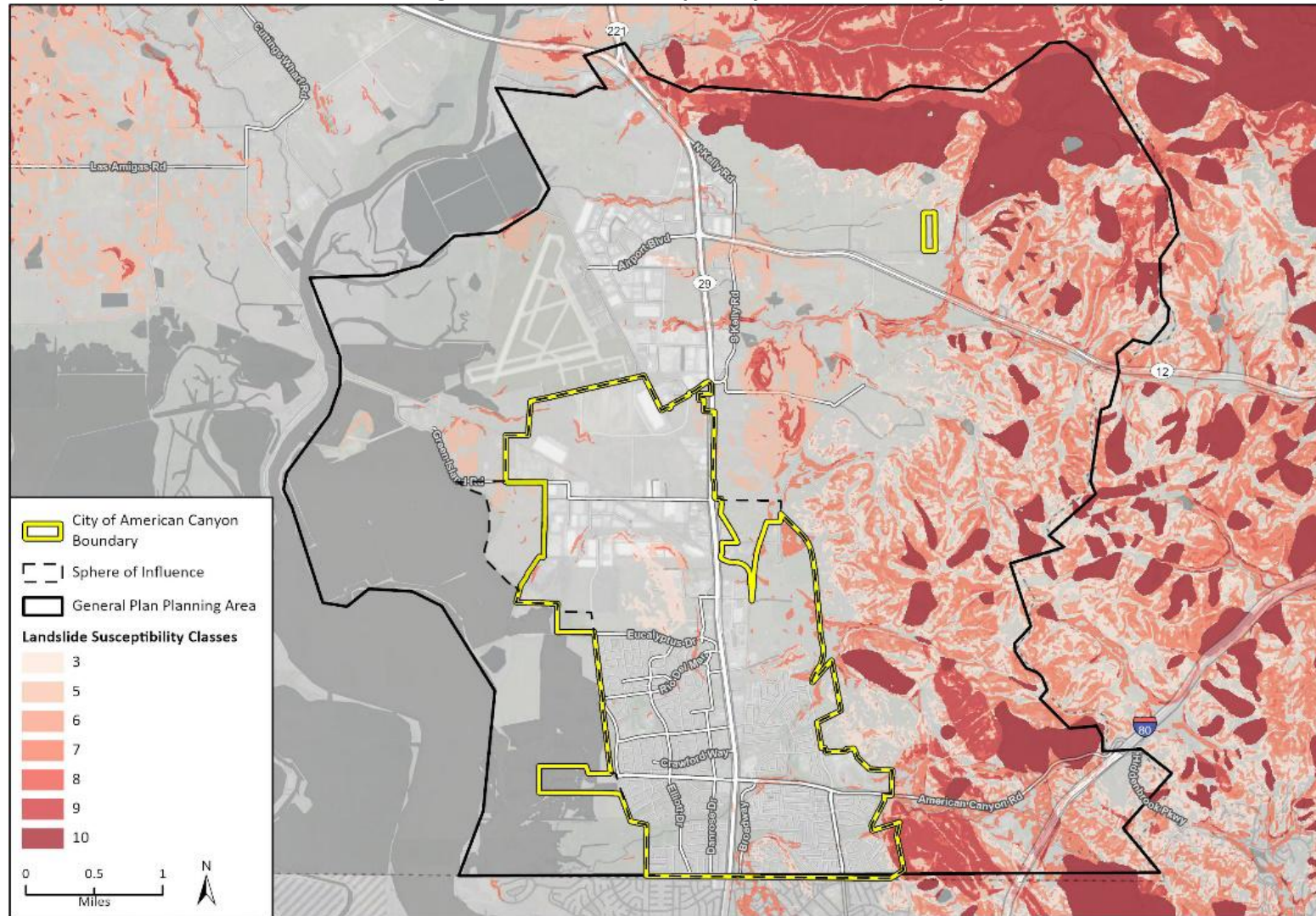
S-Figure 5: Fault Lines in American Canyon



Base map provided by Microsoft Bing, Esri and their licensors © 2022.
Additional data provided by USGS, 2017.

American Canyon City of American Canyon
City of American Canyon
City of American Canyon

S-Figure 6: Landslide Susceptibility in American Canyon



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Additional data provided by CGS, Map Sheet 58, 2015; Napa County and Mintier Harnish, 2022.

Source: City of American Canyon
Fig 7 Landslide Susceptibility in American Canyon

Goals and Policies

Goal S-4:

A community adequately prepared for natural hazards related to landslides, geologic instability, and seismic activity.

Policies

- S-4.1: Geologic Hazard Identification.** Reference current local and California Geologic Survey seismic and geologic hazards map surveys when assessing development review applications.

- S-4.2: Liquefaction.** Require special site-specific studies in areas potentially subject to liquefaction to determine engineering mitigations and development siting measures for new development.

- S-4.3: Structure Protection.** Develop inventories of at-risk public buildings and infrastructure and seek funding to bring existing City-owned structures into compliance with updated seismic safety standards.

- S-4.4: Infrastructure Protection.** Support earthquake strengthening and provision of alternative or backup services, for at-risk infrastructure such as water, sewer, electricity, and natural gas pipelines and connections, for critical facilities especially in areas of high seismic or geologic high hazard or where weak segments are identified by existing or future studies.

- S-4.5: Earthquake Protection.** Enforce seismic design provisions from all relevant building codes to reduce the risk of damage associated with seismic activity in all new and expanded development and ensure adequate review and inspection.

- S-4.6: Alquist-Priolo Act.** Implement mandatory development restrictions and investigation requirements (by the State, under the Alquist-Priolo Act, or by the City) on the West Napa fault zone located within American Canyon and its Planning Area.

- S-4.7: Geotechnical Review.** Continue to require preliminary investigations of tract sites by State-registered geotechnical

engineers and certified engineering geologists (Chapter 70 County Building Code) and ensure regular inspection of grading operations.

S-4.8: **Landslide Activity.** Restrict new development in areas of known landslide activity unless adequate mitigation is incorporated.

Hazardous Materials

Hazardous material is any substance that may be explosive, flammable, poisonous, corrosive, reactive, radioactive, or any combination thereof because of its quantity, concentration, or characteristics. These substances have a variety of uses and are frequently stored and transported but require special care in handling and disposal because of their hazardous nature.






Hazardous material concerns are most likely to occur as part of certain land uses, such as oil and gas, agriculture, or industrial businesses, or through the transport or storage of hazardous materials. Hazardous materials are most often transported along Highways 29, 12, and 37, and on the Northern California railway. The city's rail yard also has bulk hazardous material storage, and several permitted underground storage tanks are located throughout the city that could potentially cause concern if leaks occur. There are no State or Federally listed hazardous material cleanup sites in American Canyon, but there are five locations that are considered hazardous waste sites due to the materials or uses on the site.

Goals and Policies

Goal S-5:

A community protected from use, storage, and transport of hazardous materials.

Policies

- S-5.1: Regulations.** Ensure that American Canyon Fire Protection District continues to enforce the Fire Code relating to the use of hazardous material and ensure that appropriate regulations are followed and precautions are taken for the type and amount of hazard being created. 
- S-5.2: Cleanup Sites.** Require developers to coordinate with the Napa County Health Care Agency to confirm that hazardous waste cleanup sites located within the city are remediated by the property owner in a manner that keeps the public safe. 
- S-5.3: Travel Restriction.** Restrict the travel of vehicles carrying hazardous material through the city by establishing designated travel routes.
- S-5.4: Storage and Disposal.** Coordinate with the American Canyon Fire Protection District to enforce proper storage and disposal of hazardous materials, including medical waste, by commercial and industrial operations. 
- S-5.5: Safe Use and Disposal.** Coordinate with the City's waste service provider(s) to increase public awareness about safe use and disposal of household hazardous waste. 
- S-5.6: Hazardous Material Review.** Review new development sites for potential presence of hazardous materials. 

Airport Hazards and Military Compatibility

The northern city boundary is just south of the Napa County Airport, with industrial buildings closest to the airport and residences located approximately four miles south. The airport was first constructed in 1942 by the Army Corps of Engineers on County-owned land. The airport serves general aviation flight activity from small single-engine aircraft to large business jets. Total aircraft operations in 2023 and 2024 were between 65,500 and 68,000 each year. Federal Aviation Administration (FAA) forecasts project this same, steady level of annual aircraft activity through 2049².

Potential dangers from the airport are mostly limited to the obstruction of airspace near the airport and the risk of aircraft accidents. The airport and surrounding communities adhere to several practices that minimize these risks.

Open Land Requirements

Maintaining open land to be used in the event of an emergency landing is important to maintain the safety of communities surrounding the airport. The Airport Land Use Plan (ALUP) and land use plans of surrounding communities ensure adequate open space is maintained for emergency landings if necessary.

Limiting Surrounding Development

Residential uses are not allowed in areas that may be impacted by significant noise or safety issues from the airport. Maintaining a buffer around the airport where homes are not allowed to be built mitigates potential hazards.

² Federal Aviation Administration, Terminal Area Forecast, issued January 2024.

Goals and Policies

Goal S-6:

A community protected from loss of life, injury, and property damage from aircraft operations.

Policies

- S-6.1: Airport Land Use Consistency.** Adhere to land use compatibility planning policies in the Land Use Element Goal LU-9.
- S-6.2: Adverse Airport Impact Mitigation.** Work with the Napa County Airport Authority to ensure that onsite ground activities of the Airport do not adversely impact (e.g., noise, vibration, air emissions, or other pollution) the City of American Canyon.
- S-6.3: Airport Traffic Impacts.** Work with the Napa County Airport Authority to ensure that airport vehicular access does not adversely impact the City of American Canyon.
- S-6.4: Airport Operation Expansion.** Work with the Napa County Airport Authority to ensure that any expanded operations of the Airport do not adversely impact existing land uses and development in the City of American Canyon.
- S-6.5: Emergency Preparedness.** Work with the Napa County Airport Authority and other appropriate agencies to ensure that emergency preparedness plans are maintained to protect American Canyon residents and development.
- S-6.6: Economic Development.** Recognize the importance of the Napa County Airport to City residents, including the economic, transportation, and recreational benefits, and ensure that land use decisions rendered for this area do not negatively impact Airport operations.
- S-6.7: Airport Plan Updates.** Participate in Napa County efforts to update with the Napa Airport Land Use Compatibility Plan.

Climate Change and Adaptation

Climate change is affecting the bay area in many ways, some obvious and some more subtle. While climate change occurs on a global scale, the effects are felt locally, and local communities do their part to reduce emissions of the greenhouse gases that cause climate change. Rising average temperatures, more days of extreme heat, more occurrences of drought, more risk of severe wildfires, and rising sea levels are already affecting California cities because of climate change.

According to models developed by the State of California and the University of California, Berkeley, increases in temperature will be the most intense effect of climate change. By 2040, the average maximum temperature is expected rise by 2.5°F to 77.7°F, and by 2050, the average maximum temperature will rise by 3.4°F to 74.8°F, and by 2100 it will rise 4.5°F to 75.9°F. Days where temperatures reach 99.0°F or more are likely to occur twice as often each year by 2040, and more than triple to 12 days a year by 2060.








Regional risks such as wildfire and drought will also increase in American Canyon and in the surrounding Napa and Solano Counties. Changes in weather patterns throughout California could occur, leading to times of extreme drought when rainfall and snowfall is reduced, or instances of extreme storms and flooding. The California Department of Water Resources projects that the Sierra snowpack will decrease by 25 to 40 percent by 2050, reducing available water supplies throughout California and the surrounding states. The increased temperatures and potential for extreme drought will also increase the risk and intensity of wildfires because of dry vegetation and an increased chance of ignition.


Goals and Policies








Goal S-7:

A community prepared for the effects of climate change.

Policies

- S-7.1:** **Water Conservation.** Continue and expand water conservation programs and water efficiency upgrades for existing and new development. 
- S-7.2:** **Planning Decisions.** Prepare for and adapt to the effects of climate change by considering climate change vulnerability in planning decisions, including those involving new public facilities and private development. 
- S-7.3:** **Climate Planning Partnerships.** Engage surrounding jurisdictions and Napa County to coordinate climate adaptation planning efforts. 
- S-7.4:** **Green Infrastructure.** Utilize drought-tolerant green infrastructure projects including street trees and landscaped areas and encourage installation of green roof systems as part of cooling strategies to help reduce the heat island effect and energy demand during extreme heat events. 
- S-7.5:** **Extreme Heat Response Measures.** Update emergency and disaster response measures to provide support during extreme heat emergencies. 
- S-7.6:** **Extreme Heat Education.** Provide educational programs on preparing for extreme heat days and the effects heat related illness and target educational efforts to vulnerable populations. 
- S-7.7:** **Air Conditioning Alternatives.** Encourage residents to adopt air conditioning supplements such as installing fans or planting shade trees. 
- S-7.8:** **Public Facility Retrofits.** Seek funding to retrofit existing public facilities, including public buildings and transit stops, to protect

the community from extreme heat events and poor air quality. 

- S-7.9:** **Resilient Hubs.** Establish community serving facilities that support vulnerable population resilience during climate related emergencies such as poor air quality and extreme heat. 
- S-7.10:** **Open Space Protection.** Protect city open space areas and parks from the effects of drought and heat by incorporating drought tolerant landscaping and native trees for shade. 
- S-7.11:** **City Tree Maintenance.** Reduce risk of falling tree limbs caused by drought and heat by properly maintaining city trees. 
- S-7.12:** **Emergency Power for Critical Facilities.** Work with local providers and facility owners to establish emergency power systems for critical facilities such as hospitals, police and fire departments, City Hall, and community centers. 
- S-7.13:** **Climate Change Impact Outreach.** Create an outreach plan with specific outreach programs for vulnerable populations identified in the Climate Change Vulnerability Assessment to educate and help prepare residents for climate change hazards such as extreme heat, sea level rise, flooding, drought, wildfires, and poor air quality. 
- S-7.14:** **Monitoring.** Coordinate with the Napa County Public Health Department to establish extreme heat and air quality warning systems and develop accessible and language appropriate community education resources to prepare community members for increase extreme heat events and air pollution. 
- S-7.15:** **Backup Power Sources.** Require new City-owned critical facilities to have adequate backup power sources and battery storage to minimize service disruptions during climate hazard events. 

Noise

Noise refers to recurring or ongoing unwanted or intrusive sounds. Common sources include vehicle, railroad, or airplane traffic; construction or industrial activities; and neighborhood disturbances such as barking dogs, home maintenance, special events, or parties.

To address these issues, the American Canyon Municipal Code (Title 8, Chapter 8.12: *Community Noise*) establishes a noise control program. This ordinance designates the Community Development Director as the City's Noise Control Officer (NCO), who, along with the Police Chief, is authorized to enforce noise regulations.

Chapter 8.12 prohibits any noise that disturbs the peace and quiet of the community or causes discomfort or annoyance. It outlines procedures for measuring problematic noise levels and sets specific limits for both interior and exterior noise near residential areas, as well as for construction activities. The ordinance also lists types of noise that are explicitly prohibited.

Additionally, the Noise Ordinance provides a process for applying for a variance if a noise source does not comply with the established limits but seeks temporary exemption.

Noise Sources

Effective noise management often begins with thoughtful land use and transportation planning. By strategically locating noise-generating activities away from noise-sensitive areas—such as homes, schools, and hospitals—communities can reduce the impact of unwanted sound.

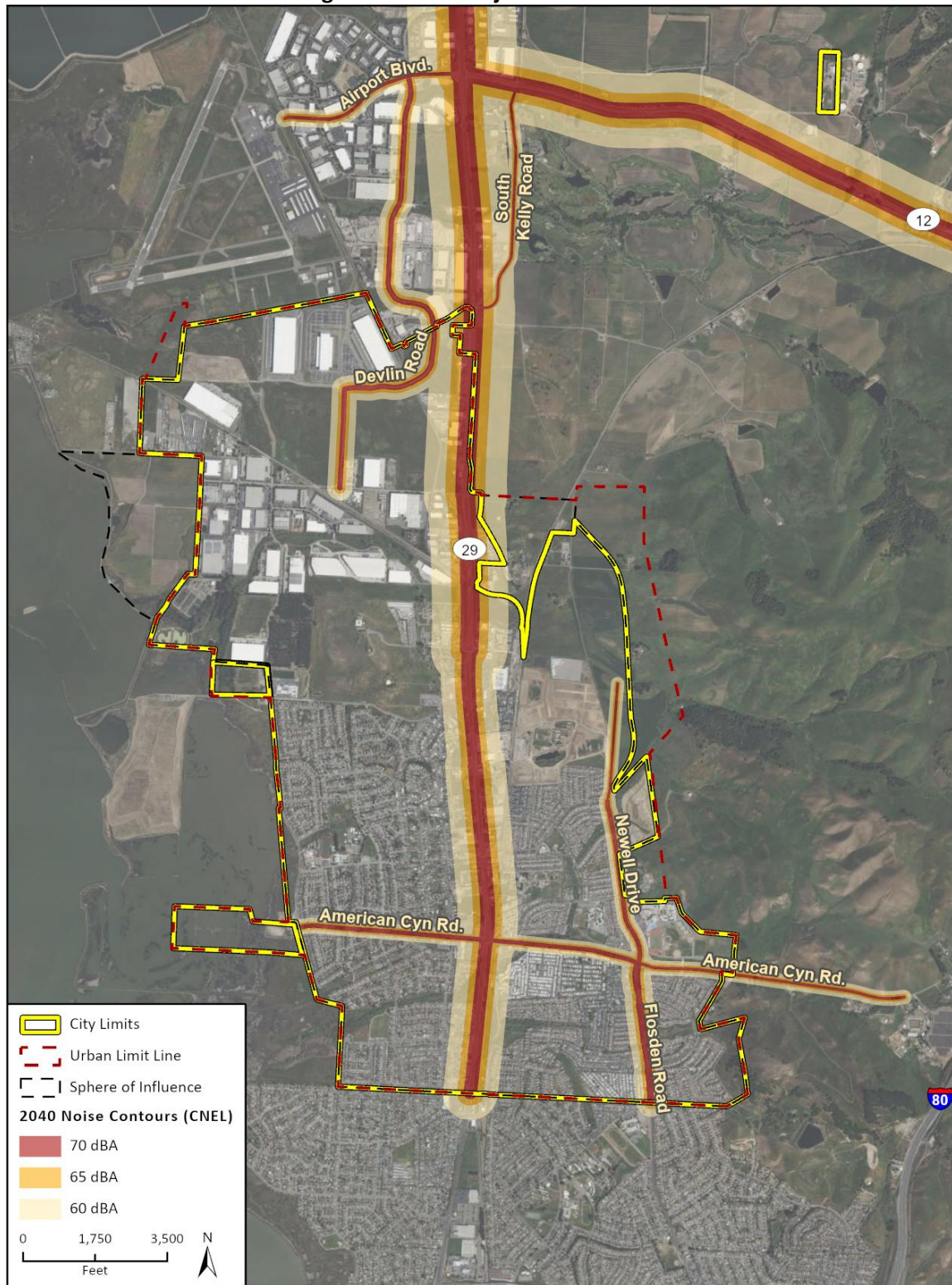
In American Canyon, the primary source of noise is vehicular traffic, particularly along Highway 29 and American Canyon Road. These major corridors experience high traffic volumes, contributing significantly to ambient noise levels. The railroad, which runs parallel to Highway 29 from north to south, is another notable source of noise.

To help mitigate these impacts, many residential and other noise-sensitive areas along these roads are equipped with sound-buffering fences. Additionally, much

of the land along Highway 29 is developed for commercial use, which is generally less sensitive to noise.

Aircraft operations also contribute to the city's overall noise environment, though to a lesser extent than road and rail traffic. Construction activities are another common source of noise, typically causing short-term spikes in ambient noise levels near work sites. These temporary increases can be disruptive to nearby sensitive uses. S-Figure 7 illustrates the projected future noise contour map for American Canyon, highlighting areas expected to experience elevated noise levels based on current and anticipated development patterns.

S-Figure 7: 2040 Projected Noise Contours



Noise Measurement

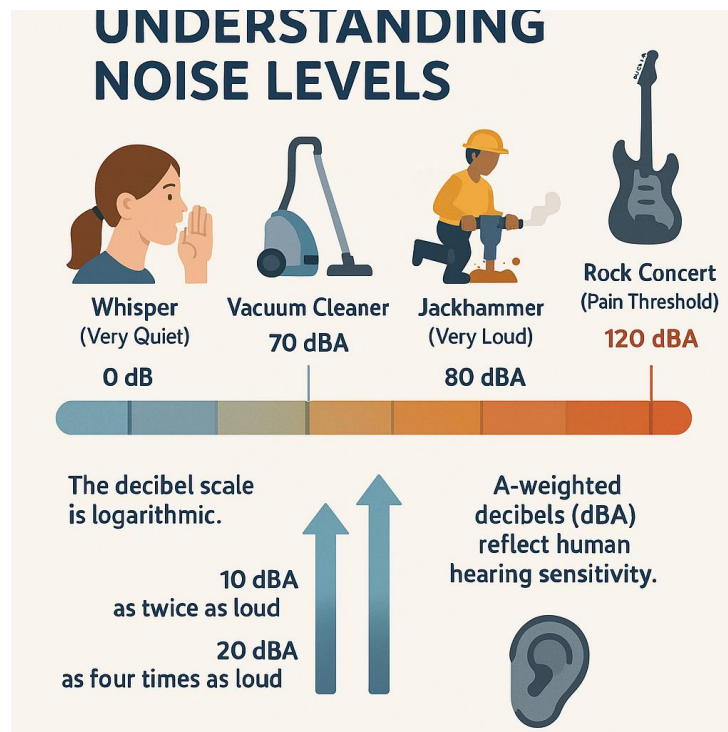
Noise is typically described by two main characteristics: **loudness** (amplitude) and **frequency** (pitch). Loudness is measured in **decibels (dB)**, using a **logarithmic scale** that compresses a wide range of sound pressures into manageable numbers. To better reflect how humans perceive sound, noise levels are often measured in **A-weighted decibels (dBA)**. This scale adjusts for the sensitivity of the human ear, which is less responsive to very low and very high frequencies.

For reference:

- A sound that is **10 dBA louder** is generally perceived as **twice as loud**.
- A sound that is **20 dBA louder** is perceived as **four times as loud**.

Everyday sounds typically range from:

- **30 dBA** (very quiet, like a whisper)
- to **100 dBA** (very loud, like a jackhammer).



Noise Sensitive Uses

Some land uses are more sensitive to noise than others. These noise-sensitive land uses include residential areas, residential care facilities, child and elder care centers, schools, places of worship, and hospitals. It is important to consider the location of these sensitive uses in relation to noise sources to ensure that noise levels remain non-disruptive.

In American Canyon, residential neighborhoods are the most common noise-sensitive areas. Homes are primarily located on the western and eastern sides of the city, generally away from Highway 29 and the noisier areas near the airport and northern commercial zones. Schools, daycares, and assisted living facilities are also situated within these quieter residential zones, helping to shield them from major noise sources.





Table S-1 outlines the State guidelines for various land use categories and their corresponding acceptable noise levels.



Table S-1 Noise Compatibility Matrix

Land Use Category	55	60	65	70	75	>80
Residential - Low-density Single-family, Duplex, Triplex, and Similar	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Multi Family	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Transient Lodging - Motels, Hotels	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing homes	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Sports Arenas, Outdoor Spectator Sports	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Playground, Neighborhood Parks	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Office Buildings, Business Commercial and Professional	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable

Legend

			
Normally Acceptable Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.	Conditionally Acceptable New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.	Normally Unacceptable New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.	Clearly Unacceptable New construction or development generally should not be undertaken.

Airport Noise

The Napa County Airport is located north of American Canyon, and the Napa County Land Use Commission oversees the expansion and compatibility of the airport with surrounding jurisdictions to ensure noise mitigation and public safety related to airport activities.

The Napa Airport Land Use Compatibility Plan (NALUCP) outlines compatibility criteria to evaluate and coordinate compatible land use planning and decision-making at the local, regional, and State levels. The NALUCP includes guidance on compatible land uses for designated compatibility zones.

The NALUCP is incorporated into the General Plan as a standalone document identified as Appendix 3 Napa County Airport Land Use Compatibility Plan.

Goals and Policies

Goal S-8:

A comfortable community environment that is free from excessive stationery and mobile noise and vibration.


Policies


- S-8.1:

Land Use Compatibility. Use the land use-noise compatibility matrix in Table S-1 to guide the siting of future land uses.
- S-8.2:

Sensitive Facilities. Ensure appropriate noise mitigation is incorporated into the design of noise-sensitive facilities.
- S-8.3:

Site Design. Minimize noise impacts to adjacent noise-sensitive land uses in site planning and project design.
- S-8.4:

Roadway Noise. Encourage nonmotorized transportation alternatives for local trips and decrease excessive motor vehicle noise by implementing traffic-calming road design, lateral separation, natural buffers, and setbacks. 
- S-8.5:

Highway Noise. Continue to coordinate with California Department of Transportation (Caltrans) and the NVTA to complete the American Canyon SR 29 Corridor Improvement Project. 

- S-8.6: Noise Complaints.** The Noise Control Officer will continue to monitor and enforce noise complaints from residents, seek to resolve concerns where feasible, and make the enforcement process accessible to the public.
- S-8.7: Mobile Noise Sources.** Minimize exposure of sensitive receptors to noise from roads through land use decisions, by encouraging the siting of sensitive noise receptors away from high traffic roadways.
- S-8.8: Noise Mitigation Measures.** Require heavy trucks to use designated truck routes that avoid residential and other sensitive land uses to the maximum degree feasible. When not feasible, investigate noise mitigation strategies such as noise barriers or truck travel restrictions, especially in areas of concern such as along American Canyon Road.
- S-8.9: Railroad Noise.** Minimize exposure of sensitive receivers to railroad-related noise and vibration through land use decisions and, as appropriate, use of setbacks and/or noise insulation for new development.
- S-8.10: Construction Noise.** Minimize exposure of sensitive receivers and enforce the limits in Section 8.12 of the Municipal Code for construction noise and vibration through methods such as restricting construction to daytime hours, use of sound barriers and/or other methods to dampen noise from construction equipment, and public notification prior to construction activities.
- S-8.11: Cross-Jurisdictional Coordination.** If noise concerns related to the California Northern Railroad (CFNR) or Napa County Airport arise, coordinate with those entities to develop and implement appropriate responses.
- S-8.12: Residential Outdoor Mechanical Equipment.** Require air conditioning units and pool equipment within residential areas to be designed and sited in a manner that does not intrude upon the peace and quiet of adjacent noise-sensitive uses.
- S-8.13: Vibration Impacts.** Require project specific vibration impact assessments for projects involving the use of vibration generating equipment such as pile drivers and vibratory rollers

that could generate groundborne vibration levels. For projects with significant vibration impacts, require feasible mitigation measures to reduce ground vibration levels and exposure to sensitive receptors.














Goal S-9:














Limit aircraft noise impacts consistent with the Napa Airport Land Use Compatibility Plan (ALUCP) which is included in the General Plan as Appendix 3.











Policies


















- S-9.1:** **Land Use Compatibility.** Except for projects that require Napa County Airport Land Use Commission review or are exempt, all new development within the city that is subject to the NALUCP shall be evaluated consistently with the procedures in NALUCP Section 5.1 which addresses noise-sensitive land use policies.
























Implementation Programs
























Programs	Implements Which Policy(ies)	Responsible	2025 – 2030	2031 – 2035	2036 – 2040	Annual	Ongoing
		Supporting Department(s)					
A Emergency Centers Conduct an evaluation of public facilities that can be used as emergency centers to identify necessary retrofitting to ensure the stability and safety of the facility in the event of a disaster. Outline procedures for preparation and use of the identified facilities the during emergencies.	S-1.1 	Public Works Community Development Police Fire District					
B County Fire and Police Coordination Meet annually with the County Fire and Sherrif Departments to coordinate and evaluate the provision of emergency services to the City.	S-1.3  S-1.8 	Fire District Police					
C Water Agency Coordination Work with contracted water agencies to identify peak load water requirements for the City and plan for adequate water supply and delivery in the event of a disaster.	S-1.4 	Public Works					
D Prepare City Staff Update emergency protocols and provide training to City staff annually to ensure quick response in reestablishing/maintaining power, water, and roadway access in the event of a disaster.	S-1.1	Community Development Public Works Fire District Police					
E Community Emergency Preparedness Create a community preparedness program to educate and prepare residents for disasters. The program can include emergency preparedness training for businesses and residents, increasing awareness on the City’s emergency response plans and resources, providing checklists for personal and business emergency preparedness kits, and developing a network of emergency and medical response volunteers.	S-1.7  S-1.12  S-1.13  S-1.14 	Community Development Police Fire District					













	Programs	Implements Which Policy(ies)	Responsible	2025 – 2030	2031 – 2035	2036 – 2040	Annual	Ongoing
			Supporting Department(s)					
F	Community Emergency Response Team (CERT) Encourage community members and City staff to participate in FEMA’s CERT program by distributing flyers/information to City departments, businesses, and social media.	S-1.12	Police Fire District	■				
G	Information Sharing Distribute flyers and use social media to provide information on disaster preparedness, resources, and updates during emergencies. Regularly update emergency preparedness information on the City’s website.	S-1.5  S-1.6  S-1.7  S-1.11 	Police Fire District	■				
H	Educate Vulnerable Populations Target educational emergency preparedness materials and trainings to the city’s most vulnerable populations by distributing information to senior centers, daycares, schools, cultural centers/organizations, and employers with low-income, non-english speaking, and outdoor workers. Provide informational materials in multiple languages.	S-1.5  S-1.6  S-1.7  S-1.11 	Community Development Police Fire District	■				
I	Emergency Access Routes Regularly evaluate existing roadways, particularly along evacuation and emergency access routes, to ensure roads will have adequate capacity during times of emergency. Develop and implement improvement plans for roadways that do not have adequate capacity or require maintenance.	S-1.7  S-1.18 	Public Works					■
J	Fire Review Include Fire Department plan review and approval for new development and redevelopment projects that involve roadway design or redesign to ensure adequate emergency access is maintained.	S-1.7  S-1.18 	Fire District					■
K	Backup Power for Critical Facilities Identify critical facilities that do not have reliable power in the event of an emergency. Develop a plan to provide on-site backup power or other means of providing back up power to those facilities.	S-1.20 	Public Works		■			










Programs	Implements Which Policy(ies)	Responsible	2025 – 2030	2031 – 2035	2036 – 2040	Annual	Ongoing
		Supporting Department(s)					
L Emergency Communication Plan Develop an emergency communication plan to evaluate and implement communication procedures and resources during and after a disaster. Review and update the plan at least once a year to incorporate new technologies, processes, and procedures as needed.	S-1.10 	Community Development					
M Employee Training Plan Update and implement the employee training plan to include up to date training requirements for City employees based on the Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS).	S-1.11	Administration					
N Volunteer Registry Create a registry of volunteers who live and work in the city and can assist in the event of an emergency. (New Program).	S-1.12	Police Fire District					
O Emergency Alerts for Single Access Neighborhoods Update the City's local alert system, Nixle, to provide tailored emergency alerts and evacuation directions to residents in neighborhoods with a single evacuation route.	S-1.13 S-1.14	Police Fire District					
P Residential Secondary Access Develop and implement a plan to add a second route of ingress/egress for neighborhoods with fewer than two evacuation routes to the extent feasible.	S-1.15 S-2.3 	Community Development Public Works					
Q Single Access Neighborhood Outreach Provide and distribute flyers with emergency access and preparedness information tailored for specific neighborhoods with only one ingress/egress route.	S-1.14	Police Fire District					
R Critical Facilities Siting During the project development and review process, ensure new and expanded critical infrastructure is located outside of high risk hazard areas, or is retrofitted to appropriately withstand such hazard events if such location is not possible.	S-1.17 	Community Development Public Works					


















	Programs	Implements Which Policy(ies)	Responsible	2025 – 2030	2031 – 2035	2036 – 2040	Annual	Ongoing
			Supporting Department(s)					
S	Inventory Critical Facilities Inventory City owned critical facilities to identify facilities that require retrofitting to bring them up to modern safety standards for natural disasters and outline what improvements are needed.	S-1.19	Public Works					
T	Critical Facilities Funding Designate a City staff member to identify and pursue funding opportunities and available grants for critical facilities improvements to improve resiliency to natural disasters.	S-1.19	Public Works					
U	Site Design Standards Develop specific site design and maintenance standards, such as requirements for maintaining defensible space surrounding structures, for development on the eastern side of the city, in proximity to the high fire hazard severity zones.	S-2.1 	Fire District Community Development					
V	Retrofit Incentives Programs Develop and promote incentives for building improvements such as installation of fire sprinklers for existing structures to improve fire safety in existing development.	S-2.8  S-3.8  S-7.8 	Public Works Fire District					
W	Fire Safety Education Distribute flyers with information on fire safety, including wildland and structural fire prevention, evacuation protocols, and guidelines for defensible space and other hazards around structures.	S-2.4  S-2.6  S-2.14	Fire District					
X	Fire Equipment Regularly inventory and test fire equipment and water supply availability to evaluate the City's capacity to suppress and respond to fires.	S-2.5  S-2.12 	Fire District					
Y	Evacuation Route Capacity Evaluate evacuation route capacity, safety, and viability under a range of emergency scenarios as part of the next update to the Napa County Operational Area Multi-jurisdictional Hazard Mitigation Plan, in accordance with AB 747.	S-1.16  S-1.18  S-2.3 	Community Development Fire District					














	Programs	Implements Which Policy(ies)	Responsible	2025 – 2030	2031 – 2035	2036 – 2040	Annual	Ongoing
			Supporting Department(s)					
Z	Fire Safety Audits Offer fire safety audits to property owners and residents to enhance fire prevention for existing structures.	S-2.5  S-2.6 	Fire District					
AA	Fire Protection Plans Update the municipal code to establish requirements for fire protection plans for new development projects.	S-2.9 	Fire District Community Development					
BB	Defensible Space Update the municipal code to establish requirements for defensible space for development in high and very high fire hazard severity zones.	S-2.8  S-2.13 	Fire District Community Development					
CC	Water Supply Regularly evaluate the city's water supply and water fire flow to ensure adequate capacity during wildfire/fire events.	S-2.11 	Fire District Public Works					
DD	Emergency Roadway Maintenance Prioritize emergency roadway maintenance projects within the City's Capital Improvement Plan.	S-2.1 	Public Works					
EE	Storm Drain Maintenance Encourage community members to assist in maintaining storm drains by providing instructions for clearing debris from stormdrains on the City's website and posting links of the information to social media before storm events.	S-3.4 	Public Works					
FF	Flood Improvement Projects Develop and implement an improvement plan to outline and prioritize capital improvement projects for low-lying, flood-prone, and sea level rise areas and seek funding for those projects.	S-3.1  S-3.2  S-3.5 	Public Works					
GG	Flood Management Training Work with FEMA and other floodplain management authorities to receive annual training regarding floodplain regulations, best practices, and management.	S-3.1 	Public Works					
HH	Flood Prevention in New Development Develop mitigation and design guidelines for new construction to protect development from flood and sea level rise impacts.	S-3.5  S-3.6 	Community Development					

	Programs	Implements Which Policy(ies)	Responsible	2025 – 2030	2031 – 2035	2036 – 2040	Annual	Ongoing
			Supporting Department(s)					
II	Wetland Management Plan Work with other agencies to develop and implement the American Canyon Wetlands Restoration Plan and to preserve the ecological integrity of wetland areas within the city.	S-3.1  S-3.9  S-3.11 	Community Development <hr/> Public Works					
JJ	Publicly-Owned Critical Facilities Inventory critical facilities and other public buildings that are exposed to seismic shaking or are at an elevated risk of seismic shaking or liquefaction. Seek funding to conduct retrofits to City-owned infrastructure to improve safety and provide emergency power backup to reduce vulnerability related to seismic hazards.	S-4.3  S-4.4  S-4.5 	Public Works					
KK	Funding to Identify Vulnerable Critical Facilities Seek grant funding to identify and retrofit critical facilities and infrastructure that is vulnerable to geologic hazards.	S-4.3  S-4.4  S-4.5 	Public Works <hr/> Community Development					
LL	Privately-Owned Critical Facilities Work with businesses and organizations to encourage building retrofits to privately owned critical facilities to improve safety and provide emergency power backup.	S-4.1  S-4.5 	Public Works					
MM	California Building Code Adopt new California Building Code requirements, when necessary, to promote the use of updated design standards.	S-4.1  S-4.3 	Community Development					
NN	Geologic Studies Continue to enforce the California Building Code and the Alquist-Priolo Earthquake Fault Zoning Act that require geologic studies to be performed so that habitable structures and essential facilities will be sited away from active and potentially active faults.	S-4.1  S-4.2  S-4.6 	Community Development					
OO	Water Infrastructure Evaluate and monitor earthquake and seismic safety of existing water infrastructure and identify weaknesses. Develop improvement programs for infrastructure that is susceptible or damaged by seismic events.	S-4.4 	Public Works					

Programs		Implements Which Policy(ies)	Responsible Supporting Department(s)	2025 – 2030	2031 – 2035	2036 – 2040	Annual	Ongoing
PP	Hazardous Materials Transport Designate and enforce safe routes through the city for the transport of hazardous materials.	S-5.3 	Waste Management					
QQ	Hazardous Waste Information Provide information on proper disposal of household and industrial hazardous waste to businesses, in City Hall, and on the City's website.	S-5.5 	Waste Management					
RR	Hazardous Waste Disposal Work with Recology American Canyon to adjust hazardous waste drop off limits and potentially expand curbside pick up beyond motor oil.	S-5.5 	Public Works					
SS	Medical Waste Disposal Distribute information on proper medical waste disposal to businesses and residents.	S-5.4 	Waste Management					
TT	Environmental Site Assessment If determined by the City to be necessary, a Phase I Environmental Site Assessment (ESA) in accordance with ASTM International methodologies shall be completed for new development proposals prior to project approval. If the Phase I ESA determines hazardous materials may be present, a Phase II ESA may be required. If the Phase II ESA for the development site indicates that contaminants are detected in the subsurface at the project site, the project applicant shall prepare a Soil Management Plan for impacted soils prior to the start of construction.	S-5.6 	Community Development Public Works					
UU	Airport Land Use Consistency Maintain consistency between the land use designations and the Napa County Airport Land Use Compatibility Plan.	S-6.1	Community Development					
VV	ALUC Consistency Monitor Airport Land Use Commission planning efforts and update City land use designations as appropriate.	S-6.7	Community Development					

Programs	Implements Which Policy(ies)	Responsible	2025 – 2030	2031 – 2035	2036 – 2040	Annual	Ongoing
		Supporting Department(s)					
WW Restrict Siting of Sensitive Land Uses Update the Municipal Code to restrict siting of sensitive land uses in the approach/departure or common traffic pattern zones of the Napa County Airport, consistent with the land use restrictions in the Napa County Airport Land Use Compatibility Plan.	S-8.1	Community Development		■			
XX Water Conservation Education Distribute information to the public on incentives for water conservation best practices.	S-7.1 	Public Works	■				
YY State Water Conservation Programs Update the Municipal Code to implement and enforce State mandated water conservation programs.	S-7.1 	Public Works	■				
ZZ Climate Action Plan Prepare a Climate Action Plan or expand the City's Energy Efficiency Climate Action Plan to address and plan for climate change impacts.	S-7.3 	Community Development		■			
AAA Sea Level Rise Identify public and critical facilities vulnerable to sea level rise impacts and develop improvement plans to implement retrofits or relocate facilities as appropriate.	S-7.3 	Community Development		■			
		Public Works					
BBB Napa County Climate Action Plan Participate in the development and encourage adoption of the Napa County Climate Action Plan as well as subsequent updates.	S-7.3 	Community Development	■				
CCC Napa County Climate Action Committee Attend the Napa County Climate Action Committee meetings and work with the committee on regional and local climate action efforts.	S-7.3 	Community Development					■
DDD Drought Tolerant Landscaping Require the use of drought tolerant landscaping in new construction.	S-7.10 	Community Development	■				
EEE Rebate Programs Work with water providers to evaluate the feasibility of expanding rebate programs for the replacement of lawns and toilets to other water fixtures and updates.	U-2.3  U-2.4 	Public Works		■			

Programs	Implements Which Policy(ies)	Responsible	2025 – 2030	2031 – 2035	2036 – 2040	Annual	Ongoing
		Supporting Department(s)					
FFF Urban Forest Master Plan Develop an Urban Forest Master Plan to identify areas within the city that need additional tree canopy, including street trees, to mitigate the impacts of the urban heat island effect.	ENV-1.6 	Community Development Public Works					
GGG Green Roofs Explore the opportunity to incorporate green roof systems into local design guidelines for new development.	U-4.8 	Community Development					
HHH Extreme Heat Relief Identify and publicize facilities where residents can seek refuge from extreme heat, such as libraries, community centers, or other public facilities.	S-7.5 	Community Development Public Works					
III Extreme Heat Education Distribute information regarding preparation for extreme heat days and heat related illness to community centers, senior centers, and daycares and schools. Provide informational materials in multiple languages.	S-7.6 	Community Development					
JJJ Air Conditioning Alternatives Update the Municipal Code to establish standards for air conditioning alternatives to reduce energy demand and provide cooling during extreme heat events.	S-7.7 	Community Development					
KKK Resilient Public Critical Facilities Upgrade public critical facilities such as libraries and community centers to incorporate resiliency and preparedness to extreme heat events and poor air quality, prioritizing the protection of public health for vulnerable populations.	S-7.8  S-7.9 	Community Development Public Works					
LLL Bus Stop Shading Install shade structures and/or plant shade trees at bus stops that do not currently provide shading.	S-7.8 	Public Works					
MMM Open Space Maintenance Evaluate climate change impacts on the city's managed open space areas and create a maintenance plan to protect vegetation from heat and drought.	S-7-10 	Public Works					

Programs	Implements Which Policy(ies)	Responsible	2025 – 2030	2031 – 2035	2036 – 2040	Annual	Ongoing
		Supporting Department(s)					
NNN City Tree Management Create a City tree management plan to monitor and maintain City owned trees.	S-7.11 	Public Works					
OOO Critical Facilities Improvements Identify, seek funding for, and implement improvement projects to protect critical facilities against poor air quality and extreme heat.	S-7.12 	Public Works					
PPP Community Outreach Partnerships Partner with local organizations and non profits to educate residents on climate change hazards, with specific emphasis on vulnerable populations.	S-7.13 	Community Development					
		Police					
		Fire District					
QQQ Noise Compatibility Matrix Continue to enforce Chapter 8.12 <i>Community Noise</i> of the Municipal Code.	S-8.1  S-8.3 	Community Development					
		Police					
RRR Acoustical Analyses Require applicants to submit an acoustical analysis for projects near sensitive land uses or involving new or expanded sensitive land uses and require appropriate mitigation measures to reduce noise impacts if necessary to less than significant levels.	S-8.3	Community Development					
SSS Noise Insulation Require new residential development meet the California Noise Insulation Standards (Title 24 of the California Administrative Code) for interior and exterior noise levels.	S-8.5 	Community Development					
TTT Vibration Impact Assessment Require project-specific vibration impact assessments and vibration impact reduction measures for new development projects using major vibration generating equipment.	S-8.7	Community Development					

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