CITY OF PERRIS

GENERAL PLAN
SAFETY ELEMENT

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ADOPTED BY CITY COUNCIL ON

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CITY OF PERRIS

SAFETY ELEMENT

REVISED 2021

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I. EXECUTIVE SUMMARY

A. CONDITIONS IN PERRIS AND FOCUS OF THE SAFETY ELEMENT

Perris has several factors that could detrimentally impact overall community safety. The City experiences various hazard conditions as it is located near seismically active areas, flood plains, and high fire hazard severity zones. To compound matters, the impact of a changing climate is likely to intensify many of these risks. Drier and hotter weather will likely increase fire risk and potentially impact water supplies. Wetter and more intense winter storms could inundate parts of Perris that have never experienced flooding or exacerbate slope instability causing landslides within the City's hillsides. This Safety Element focuses on identifying these safety risks and identifying policies, goals, and implementation actions to address and prepare for them. The Safety Element also strives to align with other general plan elements, as required by state law, including (1) Housing, (2) Land Use, (3) Mobility, and (4) Open Space and Conservation. Perris has also developed and adopted a Local Hazard Mitigation Plan (LHMP), which allows for federal grant funding eligibility to mitigate many of the natural hazards identified in the City.

Perris City Hall

B. PURPOSE OF SAFETY ELEMENT

The Safety Element is one of seven mandatory elements of the General Plan. Its primary purpose is to identify potential risks that could endanger the community's public health, safety, and welfare. Periodic updates of the Safety Element ensure that goals and policies are relevant and responsive to community needs. California Government Code Section 65302(g)(1) identifies the following list of safety risks that, at a minimum, be examined in each Safety Element:

- seismically induced surface rupture*
- ground shaking*
- ground failure*
- flooding*
- tsunami
- seiche
- dam failure*

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- slope instability leading to mudslides and landslides*
- subsidence
- liquefaction areas*
- other seismic hazards
- wildland and urban fires*
- climate change*

Items denoted by an * are potential hazards relevant to the City of Perris

The Safety Element must also geographically identify each safety risk by location, evaluate the potential consequences and establish goals, policies, and objectives to protect the community.

C. MOVING FORWARD

The City of Perris is committed to protecting the community from potential natural hazard risks. The City's location and history with hazards make it likely that Perris will experience risks from seismic, flooding, and wildfire events in the future. Perris can also expect that some of these risks will worsen as climate change accelerates. With this in mind, the Safety Element, in conjunction with the LHMP, is the best avenue to understand and address natural hazard risks within the community.

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II. INTRODUCTION

A. PURPOSE

To safeguard the well-being of Perris community members, this element provides the necessary context to understand the hazards that threaten the community and outlines policies and practices that take tangible steps toward ensuring the community's continued prosperity.

B. SCOPE

The Perris Safety Element addresses the relevant planning hazards mandated by California Government Code Section 65302(g) as well as local conditions. This element identifies and discusses the following hazards as they relate to the City:

- Disaster and emergency preparedness, including evacuation
- Flood Hazards
- Fire Hazards
- Aircraft Hazards
- Seismic and geologic hazards
- Hazardous Materials and waste
- Climate adaptation and resiliency strategies

C. ELEMENT ORGANIZATION

This element is organized to be consistent with the other General Plan Elements. The goals, policies, and implementation programs provide declarative statements setting forth the City's approach to safety-related issues. A definition of these key terms is provided below.

Goal: A general statement of the desired community outcome. It is denoted as Goal S-X in this element.

Policy: Policies are actions that a community will undertake to meet the goals. They are denoted as Policy S-X.X in this element.

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Implementation/Action Programs: A list of recommended programs and future actions necessary to achieve element goals and policies; implementing actions are discussed in Section IV.

D. CONSISTENCY WITH OTHER ELEMENTS

The Perris Safety Element is an essential component of the General Plan and works in tandem with other elements to integrate safety consideration into decisions affecting future growth. The following discussion describes the relationship between the Safety Element and other mandatory elements.

Land Use

The Land Use Element is particularly responsive to natural hazards. Understanding the natural and human-made hazards that threaten a community can help reduce the possibility of disaster by avoiding the designation of sensitive land uses in hazard-prone areas. Several goals within the Land Use Element focus on protecting and enhancing the community as part of the development and entitlement process. This element also provides guidance regarding land uses and developments in close proximity to March Air Reserve Base and Perris Valley Airport.

Circulation

Coordination between the Circulation Element, and the Safety Element is an important component of comprehensive planning. The Circulation Element can influence public health and safety by addressing traffic congestion on roads designated as evacuation routes during emergencies and redefining truck routes to avoid residential and other heavily populated areas.

Housing

The Housing Element is more closely associated with land use and incorporates many safety considerations into its goals and objectives. Building practices and codes addressed in the Housing Element contribute to community safety by improving the built environment's resiliency to natural and human-caused hazards. Additionally, the Housing Element can help identify vulnerable populations and inform the Safety Element to ensure proper protections.

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Open Space and Conservation

The Open Space and Conservation Elements focus on open space protection and ecosystem services for flood risk reduction and habitat preservation. Progressive open space management techniques can help mitigate wildfire and landslide hazards, reducing the need for additional city services.

E. CONSISTENCY WITH LOCAL HAZARD MITIGATION PLAN

The Local Hazard Mitigation Plan (LHMP) serves three primary purposes: it provides a comprehensive analysis of the natural and human-caused hazards that threaten the City, with a focus on mitigation; it keeps the City of Perris eligible to receive additional federal and state funding to assist with emergency response and recovery, as permitted by the Federal Disaster Mitigation Act of 2000 and California Government Code Sections 8685.9 and 65302.6; and it complements the efforts undertaken by the Safety Element. The LHMP complies with all requirements set forth under the federal Disaster Mitigation Act of 2000 and received approval from the Federal Emergency Management Agency (FEMA) in 2018. Sections of the Safety Element are supplemented by the LHMP, incorporated by reference in this element, as allowed by California Government Code Section 65302(g).

F. REGULATORY ENVIRONMENT

California Government Code 65302(g)(1) - (8)

California Government Code Section 65302(g)(1) - (8) establishes the legislative framework for California's safety elements. This framework consolidates the requirements from relevant federal and state agencies, ensuring that all cities are compliant with the numerous statutory mandates. These mandates include:

- Protecting against significant risks related to earthquakes, tsunamis, seiches, dam failure, landslides, subsidence, flooding, and fires as applicable.
- Including maps of known seismic and other geologic hazards.

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- Addressing evacuation routes, military installations, peak-load water supply requirements, and minimum road widths and clearances around structures as related to fire and geologic hazards, where applicable.
- Identifying areas subject to flooding and wildfires.
- Avoiding locating critical facilities within areas of high risk.
- Assessing the community's vulnerability to climate change.
- Including adaptation and resilience goals, policies, objectives, and implementation measures.

California Government Code Sections 8685.9 and 65302.6

California Government Code Section 8685.9 (also known as Assembly Bill 2140 or AB 2140) limits California's share of disaster relief funds paid out to local governments to 75 percent of the funds not paid for by federal disaster relief efforts. However, if the jurisdiction has adopted a valid hazard mitigation plan consistent with Disaster Mitigation Act of 2000 and has incorporated the hazard mitigation plan into the jurisdiction's General Plan, the State may cover more than 75 percent of the remaining disaster relief costs. All cities and counties in California must prepare a General Plan, including a Safety Element that addresses various hazard conditions and other public safety issues. The Safety Element may be a standalone chapter or incorporated into another section as the community wishes. California Government Code Section 65302.6 indicates that a community may adopt an LHMP into its Safety Element if the LHMP meets applicable state requirements. This allows communities to use the LHMP to satisfy state requirements for Safety Elements. As the General Plan is an overarching long-term plan for community growth and development, incorporating the LHMP creates a stronger mechanism for implementing the LHMP.

California Government Code 65302 (g) 3 adopted through SB 1241 (2012)

California Government Code Section 65302 (g) 3 requires the Safety Element to identify and update mapping, information, and goals and policies to address wildfire hazards. As part of this requirement, any jurisdiction that includes State Responsibility Areas or Very High Fire Hazard Severity Zones (VHFHSZ), as defined by the California Board of Forestry and Fire Protection

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(Board), is required to transmit the updated element to the Board for review and approval. The City has VHFHSZs located within its boundary triggering this requirement.

California Government Code 65302 (g) 4 adopted through SB 379 (2015)

California Government Code Section 65302 (g) 4 requires the Safety Element to address potential impacts of climate change and develop potential strategies to adapt/mitigate these hazards. Analysis of these potential effects should rely on a jurisdiction's Local Hazard Mitigation Plan or an analysis that includes data and analysis from the State of California's Cal-Adapt website.

California Government Code 65302 (g) 5 adopted through SB 99 (2019)

California Government Code Section 65302 (g) 5 requires the Safety Element to identify evacuation constraints associated with residential developments, specifically focused on areas served by a single roadway.

National Flood Insurance Program

The National Flood Insurance Program (NFIP) was created in 1968 to help communities adopt more effective floodplain management programs and regulations. The Federal Emergency Management Agency is responsible for implementing the NFIP and approves the floodplain management plans for participating cities and counties. Perris participates in the NFIP and uses Title 15, Chapter 4 of the Perris Municipal Code to administer flood management regulations throughout the City.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (California Public Resources Code [PRC], Chapter 7.5, Section 2621-2699.6) was intended to reduce the risks associated with surface faults and requires that the designated State Geologist to identify and map "Earthquake Fault Zones" around known active faults. Per PRC Section 2623 a, cities and counties shall require a geologic report defining and delineating any hazard of surface fault rupture before the approval of a project. If the jurisdiction finds no undue hazard of that kind exists, the geologic report on the hazard may be waived, with the State Geologist's approval. For a list of project types, please refer to PRC

Section 2621.6. No Alquist-Priolo Earthquake Fault Zones run through Perris; therefore, it is not a topic of concern addressed in this document.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (California Public Resources Code, Chapter 7.8, Section 2690-2699.6) created a statewide seismic hazard mapping and technical advisory program in 1990 to help cities and counties more effectively address the effects of geologic and seismic hazards caused by earthquakes. Under PRC 2697, cities and counties shall require a geotechnical report defining and delineating any seismic hazard before approving a project located in a seismic hazard zone. If the jurisdiction finds that no undue hazard of this kind exists based on information resulting from studies conducted on sites near the project and of similar soil composition to the project site, the geotechnical report may be waived. After a report has been approved or a waiver granted, subsequent geotechnical reports shall not be required, provided that new geologic datum, or data, warranting further investigation is not recorded. Each jurisdiction shall submit one copy of each approved geotechnical report, including the mitigation measures to be taken, if any, to the State Geologist within 30 days of its approval of the report. For a list of project types, please refer to PRC Section 2693.

Cortese List

Government Code Section 65962.5 (typically referred to as the "Cortese List") identifies sites that require additional oversight during the local permitting process as well as compliance with the California Environmental Quality Act (CEQA). The list is generally a compilation of properties and businesses that generate, store, and/or have been impacted by the presence of hazardous materials/wastes. Many properties identified on this list may be undergoing corrective action, cleanup, or abandoned and in need of these activities. Sites within the City may contain hazardous materials requiring oversight from the Department of Toxic Substances Control and Regional Water Quality Control Board.

III. POTENTIAL HAZARDS / TRENDS

A. DISASTER AND EMERGENCY PREPAREDNESS, INCLUDING EVACUATION

The ability to anticipate and evaluate potential risks posed by natural and human-caused hazards is paramount to a city's longevity. Although this element specifically addresses natural and human-caused hazards, disaster and emergency preparedness involves many more considerations beyond identifying the hazards themselves. This discussion consolidates and briefly describes the City of Perris's hazard prevention and response strategies, including evacuation.

Emergency Operations Plan

The Emergency Operations Plan (EOP) is primarily responsible for informing the City of Perris's emergency management strategies. These strategies are typically organized under four categories: mitigation, preparedness, response, and recovery.

Mitigation

The EOP, in conjunction with the LHMP, identifies and assesses the natural and human-caused hazards that threaten the City and recommends proactive policy and procedural actions that reduce the risks associated with these hazards. This preemptive planning is intended to decrease the probability of emergency situations and minimize the effects should one occur. Examples of hazard mitigation and prevention can be found in many city policies, but they are most prominently displayed in the numerous codes regulating construction and development.

Example of overhead powerlines

Preparedness

Emergency preparedness focuses on activities that prepare a community for a disaster. These activities typically involve preparing plans addressing life safety, emergency response, and evacuation; purchasing and storing emergency supplies; and training and exercises to practice

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response activities. The Perris Emergency Operations Plan describes emergency services training and exercises undertaken by the City. The EOP also outlines the mutual aid agreements (further discussed in the wildfire section) that apply to the City and other jurisdictions supporting mutual aid efforts. To better understand preparedness issues surrounding evacuation, the City has identified the potential evacuation routes within the City that connect to other parts of Western Riverside County. **Figure S-1** illustrates the primary evacuation routes used for planning purposes, training, and exercises. These activities occur periodically in coordination with the Riverside County Operational Area. In addition, to comply with Government Code Section 65302 (g) 5 [Senate Bill 99], the City has identified residential neighborhoods with more than 30 parcels that have a single means of ingress/egress. **Figure S-2** depicts the two neighborhoods within the west Perris and south Perris that have these conditions. Future developments in these areas may prioritize improved access and mobility to reduce constraints to evacuation and emergency response.

Response

Emergency response activities typically focus on actions necessary to save lives and prevent further property damage during an emergency/disaster. Many of these activities are conducted in tandem with the Riverside County Sheriff's Department (currently providing police services to the City) and the Riverside County Fire Department (currently providing fire services to the City) standard emergency response procedures. To guide response activities, the City will rely on implementing the Emergency Operations Plan and work closely with volunteer organizations such as the Community Emergency Response Team (CERT), which helps orchestrate internal and external communications, logistics, and assistance during large-scale emergencies.

Recovery

After an emergency/disaster event, initial recovery activities focus on reestablishing basic services. Once utilities, access and emergency services are available in the impacted areas, recovery services will assist with the repair and/or reconstruction of damaged buildings and infrastructure. This may include helping residents and businesses attain the required approvals for reconstruction. Depending on the scale and type of incident, recovery could occur in specific community locations and/or require specialized expertise to address the issues created.

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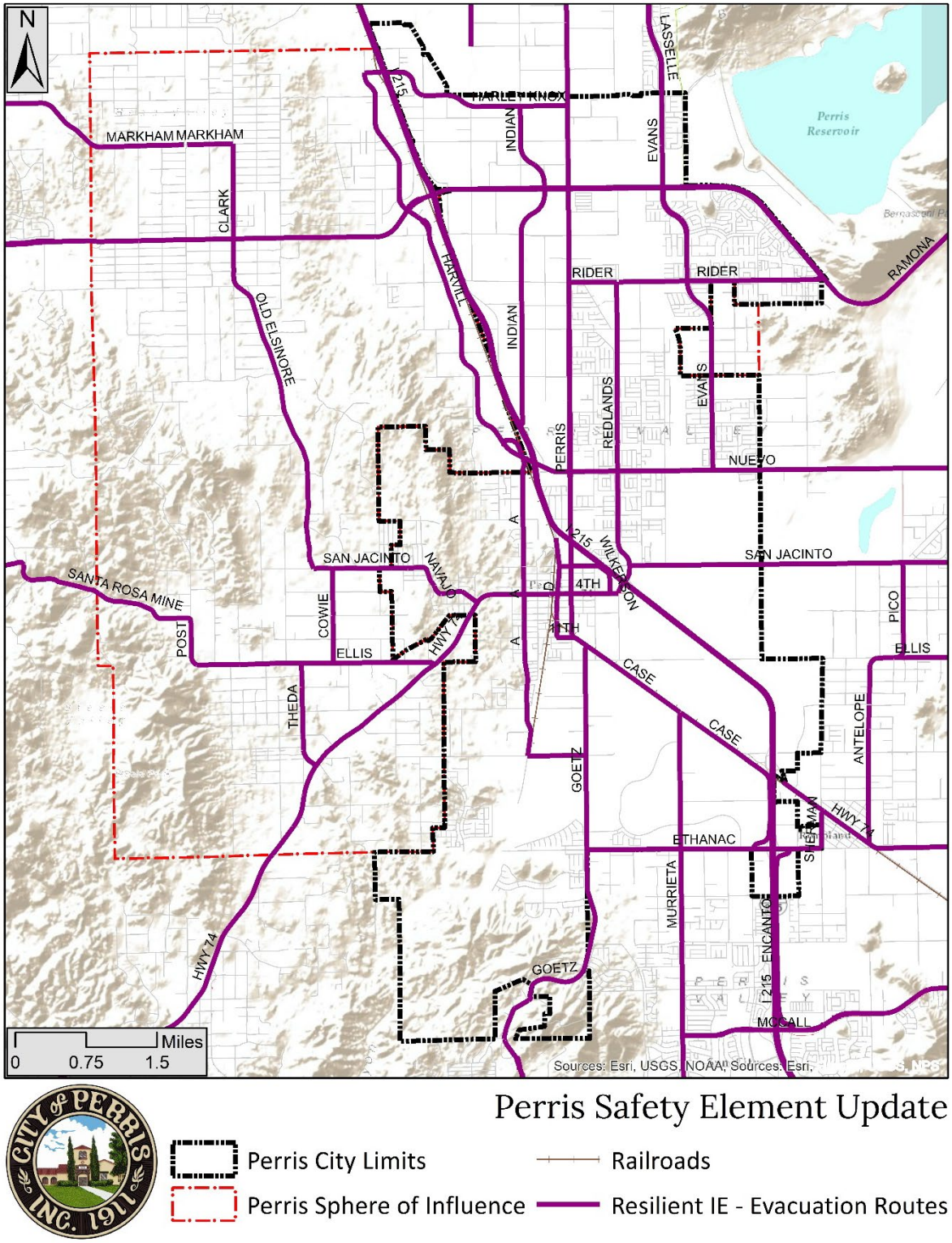
Figure S-1 – Potential Evacuation Routes



Perris Safety Element Update

Perris City Limits

Perris Sphere of Influence

Railroads

Resilient IE - Evacuation Routes

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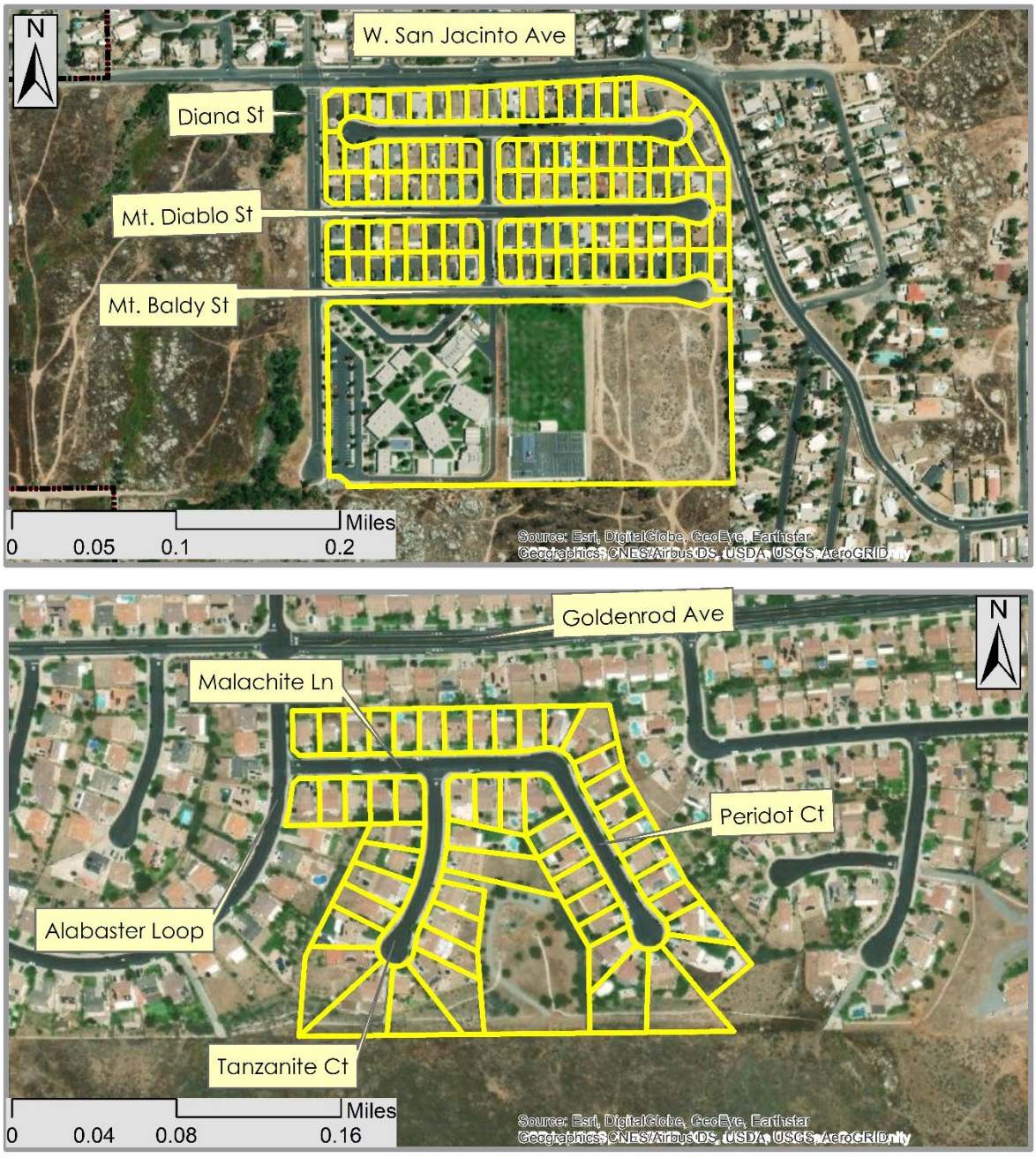
Figure S-2 – Single Ingress/Egress Parcels



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GOAL S-1: A COMMUNITY WHERE DAMAGE TO PROPERTY AND LOSS OF LIFE DUE TO NATURAL OR HUMAN-CAUSED HAZARDS IS REDUCED.

Policies

S-1.1	**Periodically participate and update the City's Local Hazard Mitigation Plan.**
S-1.2	**Periodically participate in Operational Area training and exercises and include city staff and stakeholders when appropriate.**

GOAL S-2: A COMMUNITY DESIGNED TO EFFECTIVELY RESPOND TO EMERGENCIES AND ENSURE THE SAFETY OF RESIDENTS AND BUSINESSES.

Policies

S-2.1	**Require road upgrades as part of new developments/major remodels to ensure adequate evacuation and emergency vehicle access. Limit improvements for existing building sites to property frontages.**
S-2.2	**Require new development or major remodels include backbone infrastructure master plans substantially consistent with the provisions of "Infrastructure Concept Plans" in the Land Use Element.**
S-2.3	**Primary access routes shall be completed prior to the first certificate of occupancy in developments located in outlying areas of the City.**
S-2.4	**Provide adequate emergency facilities to serve existing and future residents, ensuring that all new essential facilities are located outside of hazard prone areas.**
S-2.5	**Require all new developments, redevelopments, and major remodels to provide adequate ingress/egress, including at least two points of access for sites, neighborhoods, and/or subdivisions.**

GOAL S-3: A COMMUNITY WHERE RESIDENTS AND BUSINESSES ARE WELL-INFORMED ABOUT DISASTER PREPAREDNESS, RESPONSE AND RECOVERY.

Policies

S-3.1	**Develop an all-hazards-oriented public awareness effort that identifies relevant information for residents and businesses regarding emergency preparedness, hazard mitigation, and tips and tools for homeowners and businesses within the City.**
S-3.2	**Develop and maintain a disaster response and evacuation program and share the relevant information with City residents and businesses.**
S-3.3	**Ensure businesses in Perris are prepared for emergency and disaster situations.**

S-3.4	**Develop an all-hazards map identifying areas of increased risk within the City.**
S-3.5	**Develop an all-hazards Post Disaster Recovery Framework for use after a major incident or event.**

B. FLOOD HAZARDS

Flooding

Flooding is caused by the accumulation of water on the ground surface. This typically occurs after heavy rainfall but can also result from water delivery infrastructure failures such as pipes and storage containers. Worsening drought conditions caused by climate change may exacerbate the effects of flooding, as surfaces that typically absorb water can quickly dry out and become less permeable. Flooding presents multiple dangers to people and structures alike. Standing water may be deep enough to cause drowning, and even shallow water can easily damage buildings and property. Fast-moving water is more hazardous, as it may sweep people downstream or cause extensive damage to structures. More intense 100-year and 500-year flooding is expected to occur along the San Jacinto River and the Perris Valley Storm Drain. **Figure S-3** identifies the FEMA Flood Zones located within the City and vicinity.

When properly maintained and cleaned regularly flood control channels and drainage systems help reduce flooding, however existing flood control infrastructure cannot always meet the community's needs. While normal rainfall events don't typically cause significant flooding, major storms can cause flooding if stormwater cannot be absorbed or transported by existing storm drain infrastructure. During these conditions, excessive stormflow can cause ponding, overwhelm storm drains, and erode natural drainage channels, generating mudslides. Depending on the location of flooding, roadways can become inundated and/or damaged, affecting transportation access to parts of the City.

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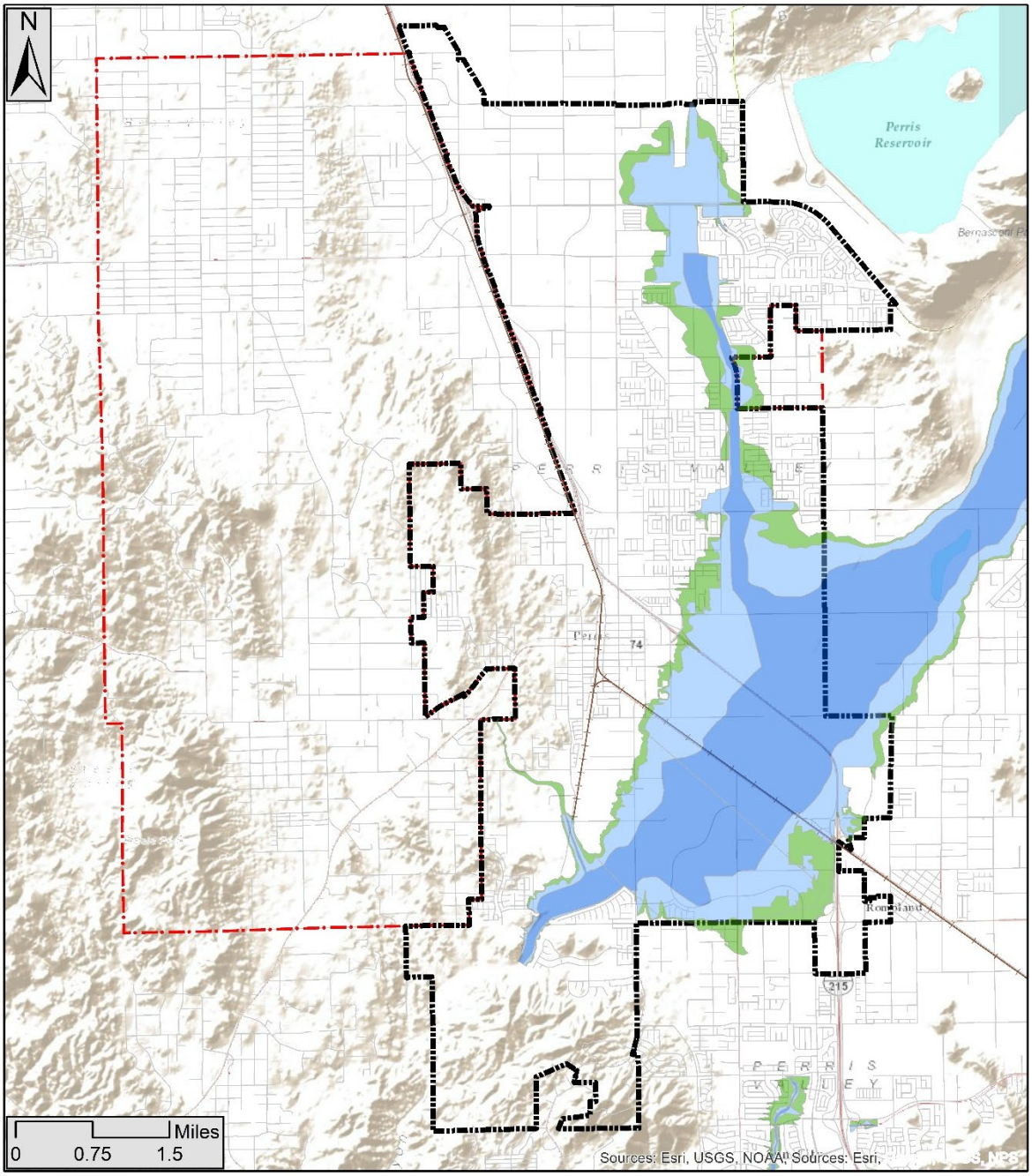
Figure S-3 – FEMA Flood Hazard Zones



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An aerial view of Lake Perris and Perris Dam. Source: DWR

The Perris Reservoir (Lake Perris) is an artificial lake located between Moreno Valley and Perris. According to the California Department of Water Resources, the Perris Reservoir has an extremely high downstream hazard potential. In 2005, Perris City Council had a work session that identified two hazard scenarios involving the Perris Reservoir. The first scenario addressed the release of water from the dam due to a 7.0 or greater earthquake, and the second scenario addressed the release of water due to dam failure. Since that time, the State of California has placed a greater emphasis on understanding the downstream effects of dam inundation events in response to the Oroville Dam incident in 2017. From that incident, the owners and operators of dams throughout the State have prepared dam inundation mapping and Emergency Action Plans (EAPs) that assist downstream communities in understanding the potential risks and actions that may be necessary in the event of a dam breach. The Department of Water Resources (DWR) has developed The Perris Dam Modernization Project, which is intended to make the dam more seismically resilient. The final phase is the construction of an Emergency Release Facility, which will allow for the safe drawdown of lake water surface levels following a seismic event. This final phase of the project is scheduled to begin construction in 2022. **Figure S-4** shows the approximate areas of potential inundation from the Perris Dam and Metz Road Basin.

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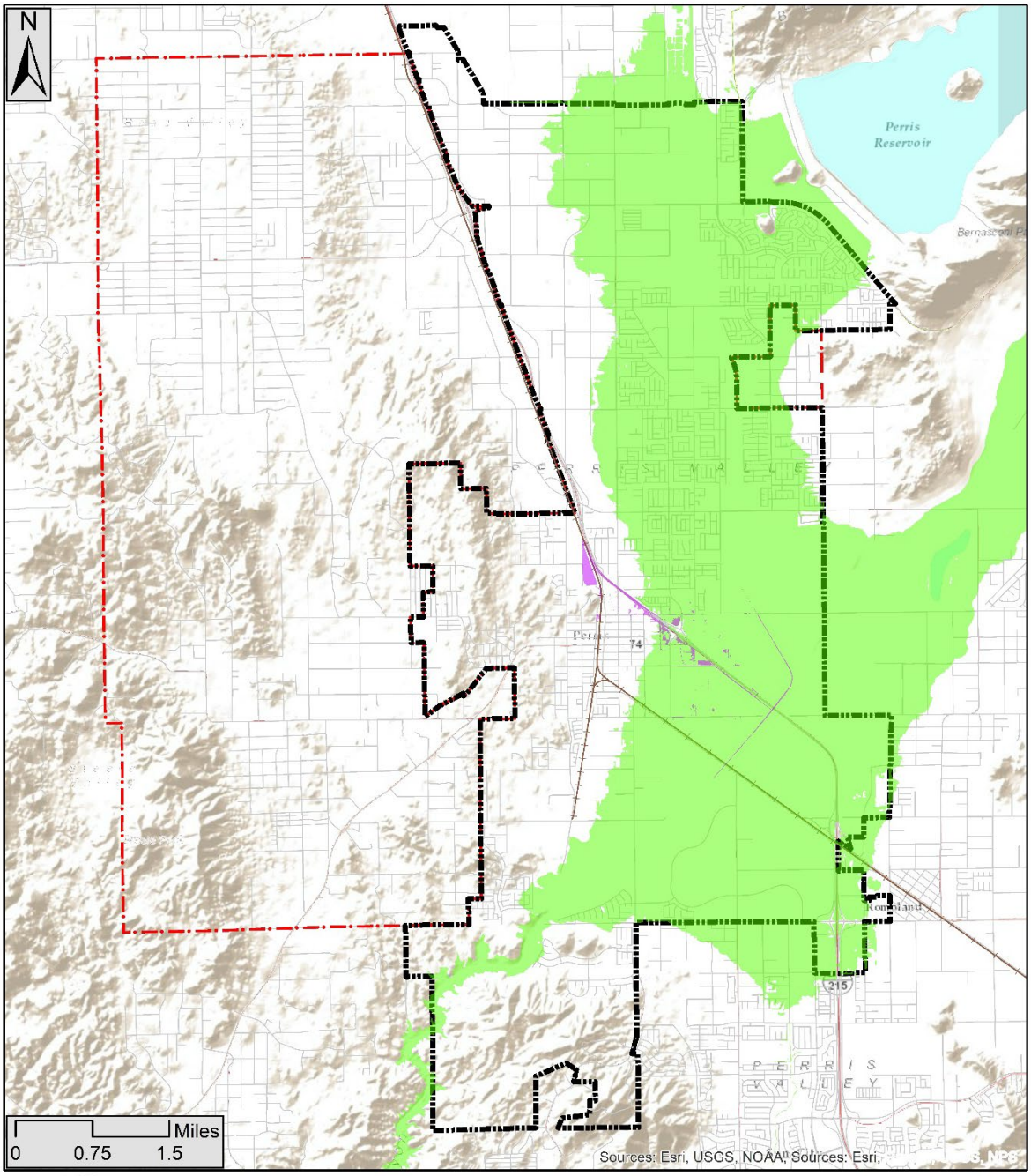
Figure S-4 – Dam Inundation Zones



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GOAL S-4: A COMMUNITY WHERE THE POTENTIAL IMPACTS ASSOCIATED WITH FLOOD-RELATED HAZARDS ARE MINIMIZED.

Policies

S-4.1	**Restrict future development in areas of high flood hazard potential until it can be shown that risk is or can be mitigated.**
S-4.2	**Coordinate with surrounding jurisdictions on flood management maintenance and improvements.**
S-4.3	**Require new development projects and major remodels to control stormwater run-off on site.**
S-4.4	**Require flood mitigation plans for all proposed projects in the 100-year floodplain (Flood Zone A and Flood Zone AE).**
S-4.5	**Ensure areas downstream of dams within the City are aware of the hazard potential and educated on the necessary steps to prepare and respond to these risks.**

C. FIRE HAZARDS

Wildfires

The most common type of natural hazard in California are wildfires, which can burn large areas of undeveloped or natural land in a short amount of time. They often begin as smaller fires caused by lightning strikes, downed power lines, or unattended campfires but may rapidly expand in size if conditions are dry and/or windy. The recent trend toward more prolonged periods of drought increases the likelihood of a wildfire occurring. Typically, wildfires pose minimal threat to people and buildings in urban areas but increasing human encroachment into natural areas increases the likelihood of bodily harm or structural damage. This encroachment occurs in areas called the wildland-urban interface (WUI), which is considered an area within the high and very high fire hazard severity zone, as defined by Cal FIRE.

Wildfires have occurred in Perris in the past and pose a significant threat to people and property. Natural, undeveloped hillsides border the community. Perris's northwest and southwest portions are classified within the Very High Fire Hazard Severity Zones (VHFHSZ). **Figure S-5** identifies both the VHFHSZs mapped throughout Perris and the Local, State, and Federal Responsibility Areas, which indicate which agency responds to an incident in these areas.

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Figure S-5 – Wildfire Hazards

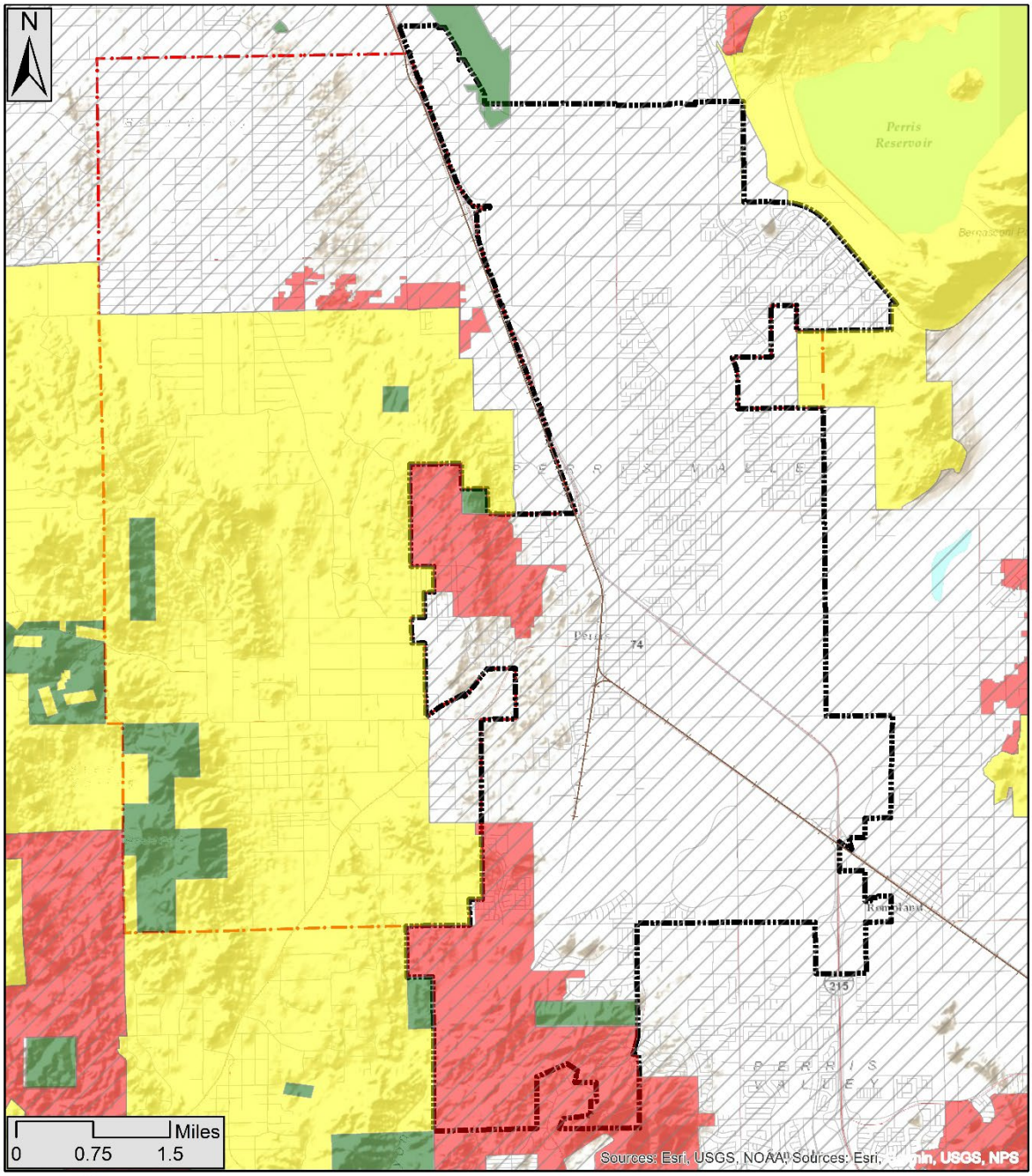

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Table S-1 identifies historic fires that have occurred within portions of the City (some fires may have spread into or outside Perris city limits). The City of Perris has been identified as a Community at Risk by the California Fire Alliance and was assigned the highest category for wildfire risk. The rating is based on available vegetative fuel sources, terrain, and ease of access by firefighting equipment. Additionally, severe wind events (Santa Ana Winds) can increase the wildfire threat as winds can transport embers far distances, igniting structures within the City. Areas of greatest concern regarding wildfire primarily include portions of the Sphere of Influence to the west of the City, the southernmost portion of the City, and a small area in the City's northeast portion. Future development within the VHFSHZ is addressed within the City of Perris Housing Element. Figures 7-1 (Pg.184) and 7-2 (Pg. 187) within the element displays potential constraints and development opportunity sites for future development.

Table S-1 – Cal FIRE Historic Wildfires for the City of Perris

Fire	Date	Acreage Burnt
Sophie Fire	6/26/1979	1111.28
1979 Fire	1979	157.37
1979 Fire #2	1979	296.98
Yucca #2 Fire	9/19/1979	421.05
1980 Fire	1980	602.42
Michael Fire	1981	1153.63
Goetz Series Fire	7/20/1983	331.74
Water Fire	1992	101.72
Dump Fire	1994	59.98
Garza Fire	8/21/2011	167.35
Freeway Fire	7/22/2012	97.78
Source: Cal Fire Database, ARC GIS, https://www.arcgis.com/home/webmap/viewer.html?useExisting=1		

Urban Fires

The possibility of an urban fire confronts every city. Many urban fires begin as isolated incidents caused by a faulty electrical appliance, absentminded cooking mishap, or industrial malfunction but can spread to other buildings if conditions permit. Many factors contribute to an urban fire's severity and extent, but modern building codes and practices have helped reduce their effects.

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Despite these improvements, it is important to acknowledge the risks associated with fires in urban areas. No matter its size, any fire can cause people severe harm and can damage buildings and other structures.

To ensure adequate fire service protection, the City contracts fire protection through Riverside County Fire Department (RCFD)/ Cal Fire. RCFD's 2009-2029 Strategic Plan, outlines how the department maintains adequate personnel and services throughout its areas of responsibility, including Perris. Currently RCFD has four mutual aid agreements, and seven automatic aid agreements with various jurisdictions (Cities, Fire Districts, March Air Reserve Base, and Native American Bands). Under RCFD five fire stations provide response services to the City, which ensure adequate coverage and timely response to all parts of the City. These locations include:

- Station 1-Perris Battalion 1 at 210 West San Jacinto Avenue
- Station 9-Goodmeadow Battalion 1 at 21565 Steel Peak Road
- Station 59-Mead Valley Battalion 1 at 21510 Pinewood Street
- Station 90-North Perris City Battalion 1 at 333 Placentia Avenue
- Station 101-City of Perris Battalion 1 at 105 S. F Street

Water Supply

Perris's water service is provided by the City of Perris Public Works, the Eastern Municipal Water District (EMWD), and the Western Municipal Water District (WMWD). Water distributed by the City of Perris Public Works is purchased from the EMWD. The EMWD provides water, wastewater, and recycled water service to almost 800,000 people from Moreno Valley to Temecula and east to the San Jacinto Valley. It is one of 26 member agencies of The Metropolitan Water District of Southern California. EMWD's water supply sources include local groundwater (potable and desalinated), imported water from the Colorado River and State Water Project systems, and recycled water. EMWD also wholesales to seven water agencies within or adjacent to its service area boundaries.[1] The location and maintenance of long-term water supplies for Perris are discussed in the Eastern Municipal Water District's Urban Water Management Plan. This plan also includes discussions regarding future water supplies and the potential effects of

[1] Riverside Operational Area 2018 LHMP

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climate change. Close coordination between the City and EMWD remains a priority to ensure adequate water supplies for daily water demands and fire suppression needs.

GOAL S-5: A COMMUNITY PRIORITIZING FIRE HAZARD REDUCTION AND MITIGATION FOR RESIDENTS, BUSINESSES, AND VISITORS.

Policies

S-5.1	**Require all new development and major remodels within the wildland urban interface (high and very high fire hazard severity zones) to incorporate fuel modification, fire-resistive construction and/or defensible space management strategies consistent with State requirements, and the City's fuel modification program.**
S-5.2	**All development projects within the VHFHSZ are required to prepare a Fire Protection Plan (FPP) to reduce or eliminate fire threats. FPPs shall be consistent with the following guidance:** A Fire Protection Plan (FPP) approved by the fire code official is required for all new development within the Very High Fire Severity Zones (VHFHSZ). FPPs are required to include mitigation strategies that consider location, topography, geology, flammable vegetation, sensitive habitats/species, and climate of the proposed site. FPPs must address water supply, access, building ignition and fire resistance, fire protection systems and equipment, proper street signage, defensible space, vegetation management, and long-term maintenance. All required FPPs must be consistent with the requirements of the California Building and Residential Codes, the California Fire Code as adopted by the City of Perris, and the City of Perris Municipal Code.
S-5.3	**Promote new development and redevelopment in areas of the City outside the VHFHSZ and allow for the transfer of development rights into lower-risk areas, if feasible.**
S-5.4	**Coordinate with Caltrans, Riverside County Transportation Commission, and neighboring communities on vegetation management, brush clearance, and the long-term maintenance of community fire breaks along roadways in the High and Very High Fire Hazard Severity Zones.**
S-5.5	**All developments in the High and Very High Fire Hazard Severity Zones are required to have highly visible street signs/addressing to aid effective emergency response.**
S-5.6	**All developments throughout the City Zones are required to provide adequate circulation capacity, including connections to at least two roadways for evacuation.**
S-5.7	**Residential developments in the High and Very High Fire Hazard Severity Zones shall be limited to less than 20 building sites when a single means of ingress and egress or a cul-de-sac is proposed and require two means of ingress/egress where emergency equipment deployment and evacuation traffic are more than the design capacity of a single ingress/egress route, consistent with the Fire Code.**
S-5.8	**Adopt State Fire Safe Regulations as necessary for new development and require verification of adequate water supply, adequate ingress/egress for evacuation purposes, proper use of building design and materials, and proper treatment of fuels to reduce fire vulnerability.**

S-5.9	**Ensure that the City maintains adequate facilities and fire service personnel in conformance with the Riverside County Fire Department's Fire Strategic Plan.**
S-5.10	**Ensure that existing and new developments have adequate water supplies and conveyance capacity to meet daily demands and firefighting requirements.**
S-5.11	**Ensure fuels reduction and fire risk reduction activities occur along key roadways and evacuation routes throughout the City.**
S-5.12	**Coordinate with Southern California Edison on electrical infrastructure that may be impacted by wildfires and/or Public Safety Power Shutoff events.**
S-5.13	**Require that any new street providing access to a residential development meet the minimum standard of two contiguous, unobstructed, 10-foot-wide paved travel lanes.**

D. AIRCRAFT HAZARDS

Airplane and helicopter emergencies are few and far between, but their occurrence can substantially impact the urban environment. Crash landings in populated areas such as Perris can harm bystanders and structures alike. Aircraft-related emergencies are most often caused by mechanical or electrical failure but do not always result in a crash. On occasion, a plane or helicopter may be forced to make an emergency landing on a stretch of roadway or unoccupied piece of land. The City of Perris shares a border with March Air Reserve Base (with runways located approximately 5 miles north of the City, used for both military and commercial purposes) and Perris Valley Airport (located within the City limits) means that preparing for both scenarios is important to preserving the well-being of community members and the built environment.

March Air Reserve Base

In 2018, the Department of the Air Force conducted an update of the 2005 March Air Reserve Base (ARB) Air Installations Compatible Use Zones (AICUZ) Study. The objective of the AICUZ is to achieve compatible uses of public and private lands in the vicinity of military airfields. The study completed three important tasks:

- Identification of Accident Potential Zones (APZ) and the Clear Zone (CZ);
- Identification of Noise Impact Zones;
- Identification of compatible uses within the above-mentioned zones.

In addition to the AICUZ, Airport Influence Area boundaries around March AFB were adopted by the County of Riverside Airport Land Use Commission (ALUC) in May 1986 and became part of the County's Airport Land Use Plan (ALUP). The ALUP has not been updated since the base

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realignment process in the mid-1990s and does not reflect changes in aircraft operations or aircraft types.

In 2016, the City of Perris adopted Airport Overlay Zones (AOZ) (Zoning Code Chapter 19.51) to comply with the 2014 March ARB/IP ALUCP boundaries and policies. Presented within the City of Perris Land Use Element, an AOZ ensures that the policies in the March ARB/IP ALUCP are adhered to when new development projects are brought before the City of Perris.

The CZs and APZs associated with the southern end of Runway 14/32 extend into the City. The City of Perris Specific Plan encourages complimentary uses associated with these conditions however some existing residences remain. Approximately 11.4 acres within the CZ would be considered Not Compatible, 38.1 acres within APZ I would be considered Not Compatible (including 37 residences, and 6.6 acres within APZ II have been determined Not Compatible (including 38 residences). Approximately 20 acres and 18 residences within the 65-69 dB CNEL noise zone are considered Not Compatible with Exemptions, and .8 acres and 3 residences within the 70-74 dB CNEL noise zone are considered Not Compatible with Exceptions.[2]

Table S-2: Perris Land Use Acreage within High Noise Zones, Clear Zones, and Accident Potential Zones (Acres)

Land Use	CNEL (dB)				CZ	APZ I	APZ II
	65-69	70-74	75-79	80+			
Commercial							2
PVCC SP	332	76			28	344*	475
Residential	20	1					7

Source: Air Force Reserve Command. 2018. Air Installations Compatible Use Zones Study - March Air Reserve Base Riverside, California. https://www.marchjpa.com/documents/docs_forms/AICUZ_2018.pdf

According to the AICUZ Study, "the City of Perris is situated directly along the southern end of March ARB Runway 14/32 where most aircraft arrivals and closed patterns occur, thus Perris has the largest amount of acreage exposed to noise levels above 60 dB CNEL when compared to the

[2] Air Force Reserve Command. 2018. Air Installations Compatible Use Zones Study - March Air Reserve Base Riverside, California. https://www.marchjpa.com/documents/docs_forms/AICUZ_2018.pdf

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neighboring municipalities. The 60 dB, 65 dB, and 70 dB CNEL noise zones all extend inside the city of Perris boundary, with the largest anticipated cumulative noise level being 73 dB CNEL."[3]

Influence Area 1 (identified in **Land Use Element Figure LU-18**) outlines the area of heaviest air traffic volumes. Noise levels are highest in these zones. High-risk and sensitive land uses are prohibited in Influence Area 1, where residential uses are limited to areas not in the actual flight path and areas where aircraft have gained sufficient altitude so that they no longer pose a relative safety threat. At March ARB, Influence Area 1 is contiguous with the AICUZ Accident Potential Zones 1 and 2 and the Clear Zone.

An Influence Area 2 (**Land Use Element Figure LU-18)** encompasses larger land areas, limits residential development to one dwelling unit per two and one-half acres, and allows agricultural, industrial, and commercial uses. The boundaries follow general flight paths and coincide with areas where aircraft turn and apply or reduce power.

Influence Area 3 (**Land Use Element Figure LU-18)** is larger than Influence Area 2 and requires avigation easements for all land uses. These avigation easements are designed to offer "constructive notice" to future buyers warning about noise and other real or potential effects caused by airport operations.

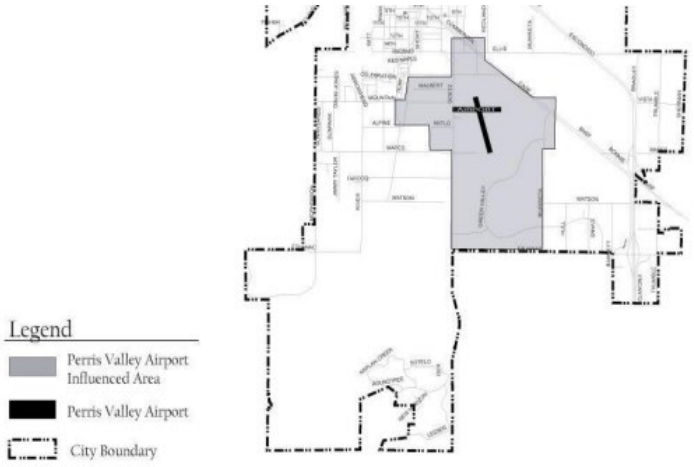

Exhibit 1 – Perris Valley Airport Influence Area

Perris Valley Airport

Perris Valley Airport is privately owned and located in the southern end of the City, a premier location for skydiving and ballooning enthusiasts. Perris Airport has only an Influence Area 1 depicted in Exhibit 1.

[3] Air Force Reserve Command. 2018. Air Installations Compatible Use Zones Study - March Air Reserve Base Riverside, California. https://www.marchjpa.com/documents/docs_forms/AICUZ_2018.pdf

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GOAL S-6: ENSURE AN EFFECTIVE RESPONSE TO AIRCRAFT HAZARDS.

Policies

S-6.1	**Ensure new development and redevelopments comply with the development requirements of the AICUZ Land Use Compatibility Guidelines and ALUP Airport Influence Area for March Air Reserve Base.**
S-6.2	**Effectively coordinate with March Air Reserve Base, Perris Valley Airport, and the March Inland Port Airport Authority on development within its influence areas.**
S-6.3	**Effectively coordinate with March Air Reserve Base and Perris Valley Airport on development within its influence areas.**

E. SEISMIC HAZARDS AND GEOLOGIC HAZARDS

Seismic and geologic hazards are traditionally addressed together because they both involve the movement of the earth's surface. Although some geologic events (landslide, subsidence, erosion, etc.) can and do happen independently, the primary catalyst for their occurrence is often a seismic event, commonly referred to as an earthquake. This section identifies four common seismic and geologic hazards that threaten Perris and establishes policies and procedures meant to protect the community when an event occurs.

Seismic Hazards

Southern California is no stranger to earthquakes, and their frequent occurrence is widely accepted as a fact of life. Perris is prone to seismic hazards due to its location in a seismically active region. These hazards can be divided into three categories, each with unique characteristics and implications for planning. Perris Valley lies between the San Jacinto Fault and the Elsinore Fault, within the Perris Block, a 20 by 50-mile mass of crystalline rocks generated in the Cretaceous time period. The Perris Block is bounded by the San Jacinto Fault to the east, the Elsinore Fault to the west, and the Cucamonga Fault to the north. This block has historically experienced vertical land movements of several thousand feet due to shifts in the Elsinore and San Jacinto faults.

Surface Rupture

The earth is covered in tectonic plates, which are large sections of the earth's crust that constantly shift and move closer together, further apart, or past one another. The movement of two plates

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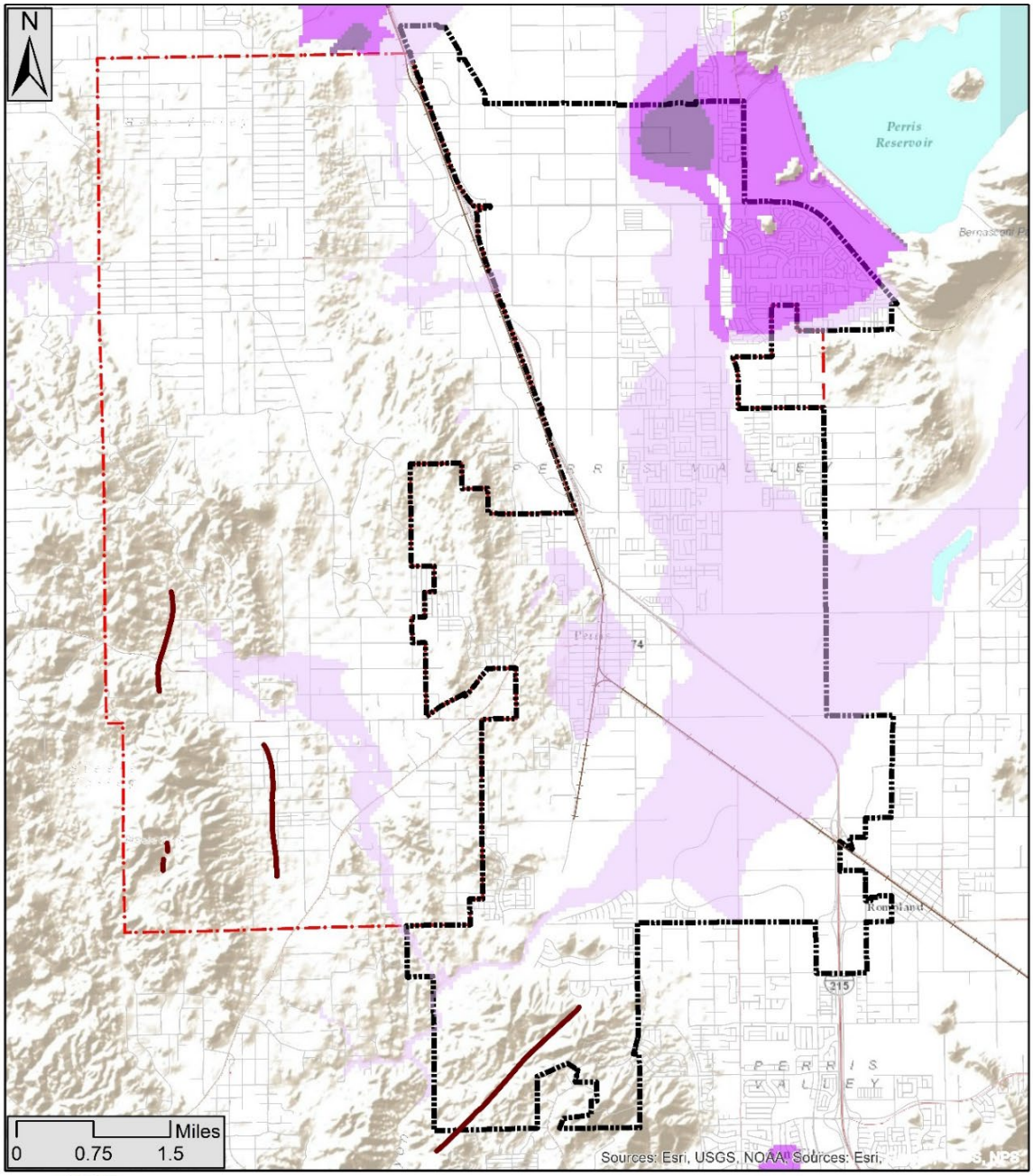
past one another frequently causes friction resulting in plates that "stick." When this occurs, the same forces that push the plates past each other are now concentrated in certain areas. In time, friction can no longer hold the plates together, and the plates suddenly shift, releasing the massive build-up of energy (i.e., earthquake). This rapid movement and release of energy can cause the earth to fracture and displace the land around it, resulting in an earthquake fault. Some faults are buried beneath the surface, and others are at the surface of the earth. Surface rupture of a fault is especially dangerous because if structures are built on top of the fault or infrastructure crosses the fault, these facilities could be damaged by fault movement. If a surface rupture occurs, the movement could break pipelines and damaged roads and bridges, rendering them useless after the event. Areas of known surface rupture hazard in California are identified in Alquist-Priolo Special Study Zones. Western Riverside County has been mapped for Alquist-Priolo zones; however, no zones exist within the City of Perris. In addition, the County of Riverside has applied additional special studies zone criteria for additional fault systems, and these identified faults have not been mapped within the City of Perris. **Figure S-6** identifies the mapped faults located within the City and vicinity, however none of these faults are considered active by the State of California requiring special study at this time.

Seismic Shaking

Seismic shaking is the recognizable movement caused by the energy released from an earthquake. The same mechanism that creates a surface rupture is also responsible for seismic shaking and can produce an equally devastating effect. Buildings and other structures may be destroyed because of violent shaking. Infrastructure such as roads, pipelines, and power lines are also susceptible to damage and pose additional safety concerns. Unlike surface rupture, seismic shaking consequences are not restricted to the area immediately surrounding the fault. Energy resonating through the ground can travel hundreds of miles and cause damage in many locations simultaneously. The closer to the earthquake's source (epicenter), the stronger the shaking will be. Seismic shaking is of particular concern for the City of Perris due to the proximity to active faults that can generate significant earthquakes. According to the U.S. Geological Survey, there is a 60% probability of an earthquake measuring 6.7 magnitude striking Southern

Figure S-6 – Earthquake Faults and Liquefaction Susceptibility



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California during a 30-year period.[4] The highest probability (approximately 20%) is projected for the San Andreas fault, located approximately 25 miles from the City. The closest fault (San Jacinto) is approximately 12 miles from the City and is estimated to have a 6% probability of generating a 6.7M earthquake or greater.

Liquefaction

Liquefaction is a phenomenon that occurs when intense vibrations from an earthquake cause saturated soil to lose stability and act more like a liquid than a solid. This poses significant problems for buildings and other structures in areas where liquefaction can occur, as the ground may give way under the weight of the structure and its foundation. In addition, underground structures are vulnerable to liquefaction. Multiple Perris areas are at risk of liquefaction. The Perris Valley is comprised of extensive alluvial deposits resulting from erosion of sediments from the San Jacinto Mountain Range. Although depths to groundwater generally exceed 100 feet, the central and northeastern parts of the City are comprised of materials considered susceptible to moderate to very high liquefaction potential. **Figure S-6** depicts the areas of the City susceptible to liquefaction.

Geologic Hazards

Although seismic events, such as earthquakes, often trigger geologic hazards, this is not always the case. Therefore, understanding and preparing for these hazards as standalone events is equally important.

Settlement

Settlement is defined as areas prone to different rates of surface settling and densification (differential compaction), with or without seismic shaking, and are underlain by sediments that differ laterally in composition or degree of existing compaction. Differential settlement can cause damage to structures, pipelines, and other subsurface entities. Development in areas subjected to seismic settlement should include geotechnical investigations that address the potential for seismically induced settlement on a site-specific basis. Settlement can be mitigated with proper

[4] U.S. Geological Survey. March 2015. Uniform California Earthquake Rupture Forecast (Version 3). https://pubs.usgs.gov/fs/2015/3009/pdf/fs2015-3009.pdf

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site preparation that involves the densification of the subsurface soils and with proper foundation design that can accommodate a limited degree of differential settlement due to seismic shaking. Areas prone to differential compaction are difficult to identify; however, it is known that alluvial soils are more susceptible to settlement than other soil types.

Settlement and fissuring have been well documented in Riverside County. Most of the early documented cases affected only agricultural land or open space. As urban areas have expanded, so too have the impacts of settlement on structures for human occupancy. Instances of settlement have been recorded in the San Jacinto Valley but not within the Perris Valley.

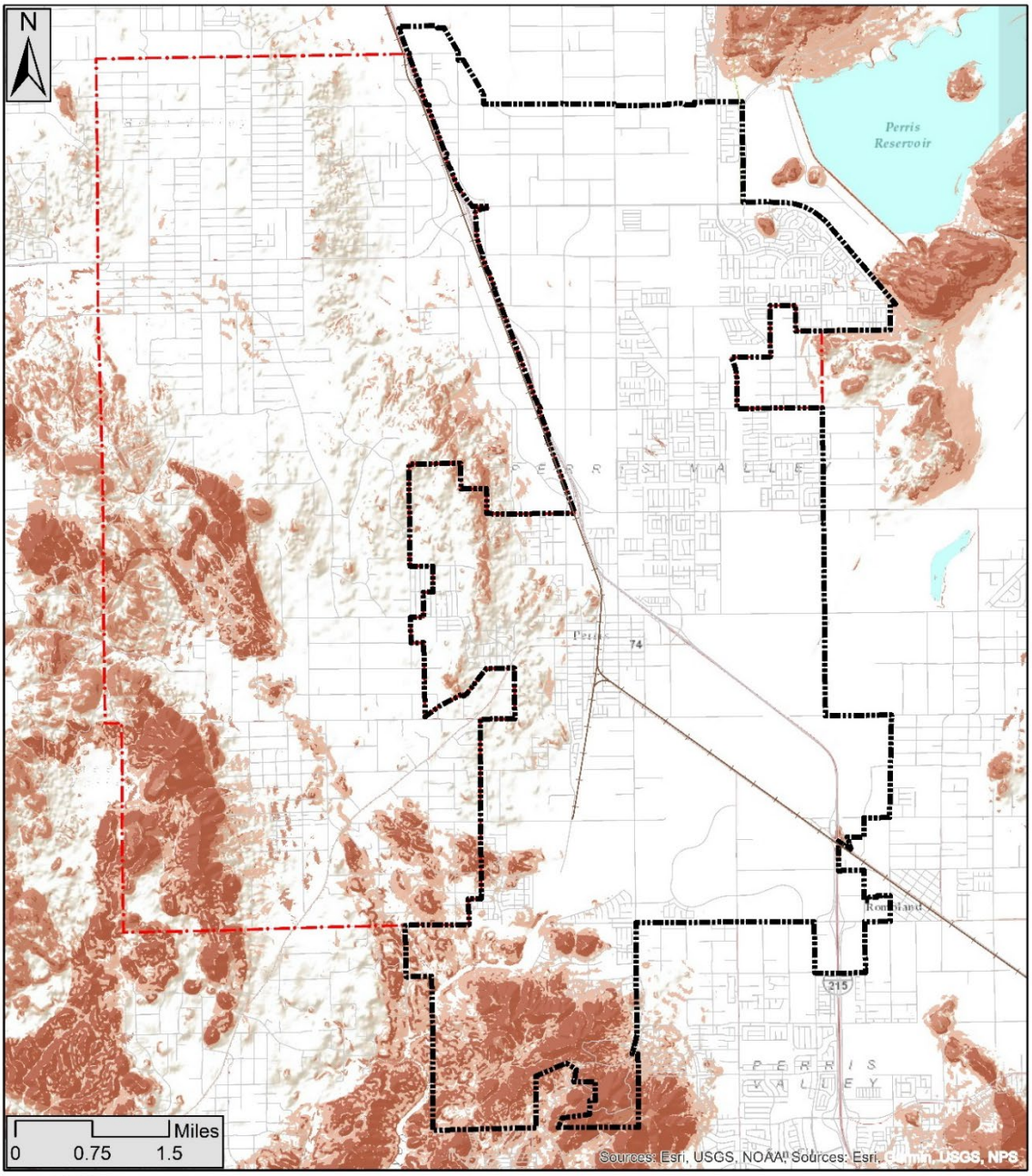
Slope-related Instability

The most significant factors contributing to slope failure include slope height and steepness, shear strength and orientation of weak layers in the underlying geologic units, and pore water pressures. Human-made slope modifications and the down-cutting forces associated with stream erosion can also cause a slope to become unstable and fail. Steep slopes (i.e., 30% or higher gradient) occur in Perris's western and southern portions. As shown in **Figure S-7**, these areas could be susceptible to landslides and rockfalls.

A combination of geologic conditions leads to landslide vulnerability. These include high seismic potential, rapid uplift and erosion resulting in steep slopes and deeply incised canyons, highly fractured and folded rock, and rock with inherently weak components such as silt or clay layers. Landslides are often triggered by seismic activity; however, slope failure does not need to be triggered by an earthquake. Strong ground motions can worsen existing unstable slope conditions, particularly if coupled with saturated ground conditions.

Debris flows can cause extensive damage to structures in their path. They are comprised of a mixture of rock and/or mantle rock with water or air. Whether debris will flow downhill depends on numerous factors, including soil depth and composition, the kind of vegetation, subtle variations in slope shape, the existence of road cuts or drainage pipes, incongruities in underlying bedrock, and even the presence of animal burrows. Fine-grained sedimentary rocks are the most

Figure S-7 – Landslide Susceptibility



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susceptible to debris flow. Typically, debris flows occur when a long saturation period is followed by intense bursts of rain, concentrated in just a few hours or days.

Water, often traveling beneath the surface from miles away, fills the pores in the surface material but not in bedrock or clay, which are less permeable. This creates a saturated zone in the surface material. An increase in pore pressure, in turn, decreases the friction that holds material to a slope. At some point, gravity causes the mass to break loose and slide along the less permeable surface below. Damaging debris flows also can and often do occur on slopes that recently endured fire damage because few roots are holding down the soil and the surface typically cannot absorb water easily covered with ash and other debris.

Destructive debris flows typically occur within western Riverside County each decade, with the most recent debris flow events taking place in 1969, 1978, and most recently in 2018 after the Holy Fire in the Lake Elsinore area. There is debris flow potential within the Perris Valley, particularly within canyon bottoms, stream channels, and areas near the outlets of canyons or channels.

GOAL S-7: A BUILT ENVIRONMENT THAT IS RESILIENT TO THE EFFECTS OF SEISMIC GROUND SHAKING AND OTHER GEOLOGIC HAZARDS AND BETTER ABLE TO RECOVER FROM THESE EVENTS.

Policies

S-7.1	**Require all development to provide adequate protection from damage associated with seismic incidents.**
S-7.2	**Require geological and geotechnical investigations by State-licensed professionals in areas with potential for seismic and geologic hazards as part of the environmental and development review and approval process.**
S-7.3	**Ensure slope stability issues are effectively addressed in both developed and developing areas within the City.**
S-7.4	**Periodically update the Liquefaction Susceptibility Map to incorporate new data and information under the supervision of a professional geologist.**
S-7.5	**Monitor groundwater elevations beneath the City to identify areas of heightened sensitivity to liquefaction hazards.**

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F. HAZARDOUS MATERIALS AND WASTES

Natural hazards are not the only threat to a community's safety. Human-caused dangers, such as various hazardous materials and wastes, are often found throughout a community and can pose significant risks. Generally speaking, hazardous materials are identified as being toxic, flammable, explosive, corrosive, infectious, radioactive, or a combination of these characteristics. Hazardous wastes are categorized similarly but are identified separately from materials because they no longer serve a meaningful use.

In the Community

Although common household chemicals pose little threat to the community at large, hazardous materials and wastes used by business and industry present a greater risk. Mechanical dealerships, repair shops, gasoline, diesel fuel stations, and dry cleaners are examples of businesses that regularly use and store chemicals or other hazardous materials. Pipelines and tanks within the City also transport and store chemicals that could pose a risk if exposure to the contents within occurs. These releases are anticipated to be isolated to properties where storage occurs. Releases also tend to involve transporting raw materials and their byproducts either by pipeline or vehicle. Regulation of the use, storage, and transport of hazardous materials and wastes rests on state and federal agencies; however, cities play a large role in minimizing the risks and impacts of exposure through careful planning and preparation. The City's main truck routes include Interstate 215 and State Route 74, which allow for transporting chemicals and materials into and out of the City.

In the Home

Exposure to hazardous materials is not uncommon, as many household cleaning products contain chemicals that can harm both humans and the environment. Through proper use, however, the health risks associated with these hazardous materials can largely be avoided. The proper storage of household cleaning products and other common hazardous materials, such as those used in automotive and home repair, is also an important component of responsible management. Following the manufacturer's instructions on the packaging and keeping products out of the reach of children are two simple steps that can help reduce the risk of exposure.

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GOAL S-8: BUILT AND NATURAL ENVIRONMENTS PROTECTED FROM EXPOSURE TO HAZARDOUS MATERIALS.

Policies

S-8.1	**Coordinate with the Riverside County Fire Department to ensure commercial and industrial activities comply with all federal, state, county, and local laws regulating hazardous materials waste.**
S-8.2	**Ensure that the transport, use, storage, and disposal of hazardous materials occur in a responsible manner that protects public health and safety.**
S-8.3	**Facilitate coordinated, effective responses to hazardous materials emergencies in the City to minimize health and environmental risks.**
S-8.4	**Educate residents and businesses about proper disposal methods of household hazardous waste and the availability of less toxic materials that can be used in place of more toxic household materials.**

G. CLIMATE ADAPTATION

Although climate change is not itself a hazard, variations in environmental conditions can impact some of the natural hazards affecting Perris. Projections of future conditions include increased temperatures, increased extreme heat days, changes in precipitation, more prolonged droughts, and changes in the size and frequency of wildfire incidents. **Table S-2** identifies the current/historical conditions and projected future conditions within Perris associated with climate change.

Table S-3 – Potential Climate Change Effects for Perris

	Historic (1961-1990)	Future (2070-2099)
Annual Mean Temperature	79.0° F	85.2 to 87.9° F
Extreme Heat Days	4 days per year	34 to 52 days per year
Annual Mean Precipitation	10.6 inches	10.6 to 11.5 inches
Annual Average Area Burned	36.8 acres	0.0 to 32.1 acres

Source: **https://cal-adapt.org/**

Increasing temperatures associated with climate change can act as a hazard multiplier. By the end of the century, annual mean temperatures are projected to increase between six and nine

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degrees, impacting city residents and businesses. These increases are also anticipated to increase the number of extreme heat days from 4 days per year to between 34 and 52 days. These potential temperature increases may impact residents living in poorly insulated structures or structures that do not meet current code requirements.

While temperatures are anticipated to increase in the coming decades, climate change projections also suggest that annual mean precipitation may stay the same or slightly increase. While a minimal increase is projected, it is anticipated that future rain events may be more intense than what is currently experienced within the City, increasing flooding within the City. With changes in future precipitation, it is expected that changes to local vegetation may occur, which could impact drainage and increase the need for wildfire management activities.

Increased rainfall could increase the amount of flooding within the community or introduce flooding into areas that haven't experienced flooding before. With greater and more intense precipitation, the City could also experience an increase in landslides/mudslides. Extreme precipitation events could de-stabilize hillsides and drainages, resulting in more landslides/mudslides and/or erosion along stream courses, impacting neighboring properties/structures.

With future temperature increases coupled with relatively similar precipitation amounts experienced today, future wildfire impact is projected to decrease by the end of the century. This projection is based on the overall reduction in small and moderate precipitation events in place of large or extreme events, suggesting that vegetation growth will experience an overall reduction. A reduction in vegetation could reduce future wildfire vulnerability due to reduced fuels. The City currently experiences an annual average of 36.8 acres burned, projected to decrease to between 0.0 and 32.1 acres by the end of the century.

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GOAL S-9: A BUILT ENVIRONMENT ADAPTED TO CHANGING HAZARD CONDITIONS EXACERBATED BY CLIMATE CHANGE

Policies

S-9.1	**Coordinate with regional, state, and federal agencies to monitor the indicators and impacts of climate change.**
S-9.2	**Periodically review and update the City's Local Hazard Mitigation Plan to incorporate new information related to climate change, as necessary.**
S-9.3	**Monitor flooding conditions that occur outside of the 100-year floodplain to identify new areas of risk as future conditions change.**
S-9.4	**Monitor wildfire mapping and hazard conditions for changing future conditions as a result of climate change.**
S-9.5	**Improve city staff understanding of how climate change may disproportionately affect vulnerable community members, including senior citizens, low-income persons, and persons with disabilities.**
S-9.6	**Develop incentive programs to encourage property owners to retrofit their homes/businesses against climate-related hazards such as extreme weather, flooding, wildfire, etc.**
S-9.7	**Prepare and periodically update a Climate Action Plan that integrates climate adaptation and hazard mitigation information and analysis.**

IV. IMPLEMENTATION PROGRAMS / ACTIONS

A. DISASTER AND EMERGENCY PREPAREDNESS, INCLUDING EVACUATION

S-1.1a – As part of the Hazard Mitigation Plan update, evaluate the location of critical facilities in relation to hazard exposure.

S-1.1b – Prepare evacuation routes and disaster response plans for known hazards within the City.

S-1.1c – Participate in ongoing disaster preparedness training programs in conjunction with other jurisdictions.

S-2.1a – Identify and implement traffic calming strategies that will not interfere with emergency response activities.

S-2.4a – Periodically update the Public Safety Facilities Development Impact Fees to fund improvements in public safety facilities and equipment.

S-2.4b – Revise the development impact fee program to fully fund all infrastructure construction and improvements identified as attributable to new development.

S-2.4c – Identify sources of funding for additional infrastructure to serve existing development.

S-3.2a – Work with local school districts to distribute emergency information at the schools.

S-3.2b – Work with City service providers (water, wastewater, etc.) to distribute materials to Perris customers.

S-3.3a – Work with the local Chamber of Commerce to distribute evacuation plans for all business owner/operators, employees, and patrons.

B. FLOOD HAZARDS

S-4.2a – Provide leadership in efforts to improve the Perris Valley Storm Channel and San Jacinto River Channel.

S-4.2b – Periodically update the Master Drainage Plan Fees to fund drainage improvements.

C. FIRE HAZARDS

S-5.1a – Ensure the City's fuel modification requirements meet or exceed state requirements and best practices.

S-5.1b – Adopt landscaping standards to include a fire-resistant plant palette, where appropriate.

S-5.1c – Enforce current California Building Code standards to exclude the use of materials that pose a fire risk, such as untreated wood roofing materials, and retrofit existing structures with these elements.

S-5.1d – Maintain weed abatement efforts through code enforcement.

S-5.1e – Identify existing non-conforming structures within the VHFHSZ's and ensure that that these structures are brought into compliance with the latest fire safe regulations and best practices.

D. AIRCRAFT HAZARDS

S-6.2a – Participate in March Operations Assurance Task Force to resolve inconsistencies between local land use regulations and AICUZ and ALUP policies.

S-6.2b – Continue to notify March Air Reserve Base, and March Inland Port Airport Authority of new development project applications and consider their input before making land-use decisions.

S-6.2c – Development on property within the Perris Valley Airport Interim Influence Area 1 shall be subject to prior determination, in consultation with ALUC, and subsequent adoption of appropriate use and development restrictions necessary to minimize the potential for loss of life.

E. SEISMIC HAZARDS

S-7.2a – Require implementation of mitigation measures identified in the studies outlined in Policy S-7.2, prior to issuing grading and building permits.

S-7.2b – Require engineered slopes to be designed to resist seismically induced failure, in accordance with state-of-the-art engineering parameters and analytical methods.

S-7.2c – Require cut and fill transition lots to be over-excavated and require complete maximum variation of fill depths beneath structures to mitigate the potential of seismically induced differential settlement.

S-7.2d – Adopt and enforce the most current version of the California Building Code (CBC).

S-7.3a – Reconstruction of structures intended for human occupancy that have been damaged or destroyed by failed slopes will be prohibited unless a geological report prepared by a State-licensed geologist shows that remedial measures will improve the unstable slope conditions sufficiently to make the site suitable for redevelopment.

S-7.3b – Geotechnical studies will be required for all projects to determine the potential for damage from expansive soils and define appropriate mitigation measures to address the identified damage potential.

S-7.4 - Implement dam inundation notification protocols, consistent with the Perris Dam Emergency Action Plan, after a seismic event.

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