



City of Rialto

# Safety and Noise

MARCH 2024 DRAFT



A large, leafy tree stands in the center of a parking lot. The tree is the main focus, with its branches spreading out. In the background, several cars are parked in a lot, and a building is visible. The scene is captured in a dark, blue-tinted light, possibly during dusk or dawn. The word "Introduction" is written in a large, white, sans-serif font across the middle of the image, centered over the tree.

# Introduction

## INTRODUCTION

The Safety Element of this General Plan addresses hazards in the City of Rialto and the potential short- and long-term risks to human life, property, and economic and social dislocation resulting from hazard events, including extreme heat, flooding, geologic and seismic hazards, hazardous materials, and wildfires. This is one of seven elements required by State law (Government Code 65302). Climate change has the potential to exacerbate many of these hazards and compound their effects; for example, increased risk of wildfire and flood also increases the risk of landslide. Therefore, in accordance with Senate Bill (SB) 379, this Safety Element also addresses climate change within each applicable hazard section.

Other topics covered within this element include gangs, noise, and wind hazards. Gangs and wind hazards encompass additional safety concerns present in Rialto and are not required by state law, while noise is another required general plan element that has been consolidated into this element.

This Safety Element includes a section titled Safety Concerns in Rialto, which outlines each hazard facing Rialto, when and where hazards occur, and how the City of Rialto (City) is currently addressing these hazards. **Vulnerable populations** are considered throughout this Safety Element because many hazards disproportionately affect certain populations. Following the existing conditions is a Goals, Policies, and Actions section, which provides the City's safety roadmap, including a comprehensive hazard mitigation and emergency response strategy. Goals, policies, and actions are organized by four planning phases designed to enhance the resilience of a community: mitigate, prepare, respond, and recover.

### **VULNERABLE POPULATIONS**

Vulnerable populations include people who have heightened exposure or increased sensitivity to hazards. Vulnerabilities vary by hazard, and can be caused by physical, social, political, or economic reasons. Climate change can exacerbate these vulnerabilities if not addressed.

## Relation to Other Planning Documents

### **OTHER GENERAL PLAN ELEMENTS**

This Safety Element directly relates to topics in the Managing Our Land Supply and Circulation Chapters of the General Plan. The Safety Element identifies hazards and hazard abatement provisions to guide land use decisions related to zoning, subdivisions, and entitlement permits. The Safety Element also addresses emergency response and evacuation routes, which informs the Circulation Element to ensure that streets are sized adequately for fire truck access and other needs of first responders. Related to the Conservation and Open Space Element, the Safety Element addresses community greening to increase shade and mitigate extreme heat days in Rialto. There are also connections to the Environmental Justice Element, related to identifying and prioritizing populations vulnerable to hazards.

## **CLIMATE ADAPTATION PLAN**

The Climate Adaptation Plan (CAP) builds on the City’s Safety Element and Local Hazard Mitigation Plan (LHMP) to evaluate Rialto’s vulnerabilities and capabilities and to propose policies addressing four climate-related hazards: air pollution, extreme heat, wildfire, and flooding. The CAP addresses the requirements of two State laws: SB 1000, the Planning for Healthy Communities Act, and SB 379. SB 379 requires that general plans include climate-related hazards and resilience strategies; SB 1000 mandates that cities and counties adopt environmental justice elements or integrate environmental justice goals, objectives, and policies into general plans when they update two or more elements. The most recent CAP was adopted on September 28, 2021.

## **LOCAL HAZARD MITIGATION PLAN**

This Safety Element incorporates and augments mitigation policies contained in the LHMP. LHMPs are updated more often than safety elements and provide technical detail informing projects that mitigate potential hazards, while safety elements provide the long-term blueprint to addressing natural hazards, including how to prepare, respond to, and recover from hazard events. It is important that these documents are consistent and create a clear roadmap to a safe and resilient Rialto. Additionally, by integrating the LHMP with the Safety Element, the City will also achieve eligibility for additional post-disaster funding from the State of California. Integration also allows the Safety Element’s framework of goals, objectives, and policies to be utilized and built upon by current and future LHMPs. The most recent LHMP is available [here](#).

## **EMERGENCY OPERATIONS PLAN**

The Safety Element considers emergency preparation and response information contained in the City’s Emergency Operations Plan (EOP). The EOP, which the City is currently updating, summarizes threats based on results of the City’s hazard analysis, which the City last conducted in June 1996 and is currently updating as of 2023. The hazard analysis identifies the following threats: major earthquakes; hazardous materials; flooding; major air crash; transportation, trucking incident, and railroad system; civil unrest; national security emergency; and terrorist response. Of these, the Safety Element details hazards relating to earthquakes, hazardous materials, and flooding and augments policies relating to mitigation of these hazards.

As of 2023, the City is also in the process of developing several new emergency plans, including a Continuity of Operations Plan (COOP), Threat and Hazards Identification and Risk Assessment (THIRA), and a Disaster Recovery Plan (DRP).

## Overview of Regulatory Requirements

### GENERAL PROVISIONS FOR SAFETY ELEMENTS

Government Code Section 65302 mandates that general plans shall include a safety element for the protection of the community from any unreasonable risks associated with the effects of:

- seismically induced surface rupture, ground shaking, ground failure
- tsunami, seiche, and dam failure
- slope instability leading to mudslides and landslides
- subsidence
- liquefaction
- other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body
- flooding
- wildland and urban fires
- climate change

Pursuant to Government Code Section 65302, the safety element must include mapping of known seismic and other geologic hazards and address evacuation routes, military installations, peak load water supply requirements, and minimum road widths and clearances around structures. Furthermore, for each hazard, the safety element must identify hazard-related information, such as hazard zones; establish a set of comprehensive goals, policies, and objectives based on identified information regarding hazards; and establish a set of feasible implementation measures designed to carry out the goals, policies, and objectives.

### CLIMATE RISK

In recent years, new State law has required local governments to address climate change in General Plans. SB 379, Land Use General Plan: Safety Element, requires local governments to include a climate change vulnerability assessment, measures to address vulnerabilities, and a comprehensive hazard mitigation and emergency response strategy in their safety elements, as specified in Section 65032(g)(4) of the Government Code.

A large, leafy tree stands in the center of a parking lot. In the background, several cars are parked, and a building is visible. The scene is captured in a dark, blue-tinted style. The text "Safety Concerns in Rialto" is overlaid in white, bold font across the middle of the image.

# Safety Concerns in Rialto

## SAFETY CONCERNS IN RIALTO

This section outlines each hazard with five familiar questions: what, when, where, who, and how. For each hazard, this assessment explains what the hazard is and what causes it to occur in Rialto; when the hazard occurs, including if the hazard is seasonal or is forecasted to get worse as a result of climate change; where in Rialto this hazard is most likely to occur; who is most vulnerable to each hazard; and lastly, how the City is addressing this hazard and how initiatives can be built upon and improved in the future. Several of the hazards assessed in this plan are addressed in the LHMP. Additional hazards included in the LHMP are incorporated into this plan by reference.

This section addresses the following hazards, as well as emergency preparedness and response:

- Extreme heat
- Flooding
- Geologic and seismic hazards
- Hazardous materials
- Wildfires
- Emergency preparation and response
- Gangs
- Noise
- Wind hazards

### Extreme Heat

#### WHAT

Extreme heat is a hazard that occurs on hot days, warm nights, or during heat waves and can result in heat-related illness and hospitalization. Extreme heat is measured locally, as communities are acclimatized to their historic environment. An extreme heat day is one that is in the hottest 2% of days observed between 1960 and 1990. In Rialto, an extreme heat event is a day hotter than 103.8°F.

Heat waves and extreme heat days are made worse by the **urban heat island effect**. The urban heat island effect inflates average annual urban air temperatures, making them 1.8°F to 5.4°F warmer than other areas. Heat islands also increase energy demand for air conditioning. **Exhibit 5.1**, Greenery and the Urban Heat Island Effect, illustrates the urban heat island effect.

#### URBAN HEAT ISLAND EFFECT

The urban heat island effect occurs when dark urban surfaces, such as roofs and roads, absorb heat and slowly release the heat over time. At night, these surfaces transfer heat to the air, creating warmer nights that do not allow people to cool off, making heat waves more dangerous.

## WHEN

Extreme heat occurs in the summer and early fall in Rialto. Climate change is expected to increase the average temperature year-round, including the frequency of extreme heat days. Under a **medium emissions scenario**, extreme heat days are projected to average 24 days per year from 2035 to 2064 (mid-century), compared to 3 days per year historically. Extreme heat days are projected to average 32 days per year from 2070 to 2099 (end of century) under this scenario. Under a **high emissions scenario**, extreme heat days are projected to average 40 days per year during the mid-century and 58 days per year during the end of the century.<sup>1</sup>

## WHERE

Areas with more asphalt surfaces, more buildings, less vegetation, and less shade experience the urban heat island effect the most. When assessed in 2011, impervious surfaces covered approximately 77% of land citywide.<sup>2</sup> The central part of Rialto has slightly higher rates of impervious surfaces. Overall, these rates are comparable to those of the neighboring cities of Fontana and Colton; however, they are higher than those of other local governments in San Bernardino County and Riverside County to the south. Thus, Rialto can be expected to experience a disproportionately high urban heat island effect.

## WHO

People can be adversely affected by extreme heat if they have existing health conditions or spend increased time outdoors living, working, commuting, or playing. This can include people who depend on walking, biking, or transit to commute; older adults; and young children. Rialto has a significantly higher proportion of children under 5 years old compared to the State; this population is at higher risk from extreme heat.<sup>3</sup> All other populations vulnerable to extreme heat are found at relatively low rates in Rialto (see **Table 5-1**).

### MEDIUM EMISSIONS SCENARIO

A medium emissions scenario refers to a type of climate model called representative concentration pathway (RCP) 4.5. This model assumes major reductions in greenhouse gas emissions through mid-century.

### HIGH EMISSIONS SCENARIO

A high emissions scenario refers to a type of climate model called representative concentration pathway (RCP) 8.5. This model assumes global greenhouse gas emissions will continue to rise throughout the 21st century.

1 California Energy Commission. 2021. "CalAdapt – Extreme Heat." Accessed February 2023. <https://cal-adapt.org/tools/extreme-heat>

2 Public Health Alliance of Southern California. 2011. "California Healthy Places Index: Impervious Surface Cover (2011)." Access February 2023. <https://map.healthyplacesindex.org/>.

3 U.S. Census Bureau. 2021. "Age and Sex." ACS 5-Year Estimates. Table S0101.

**Table 5-1. Populations Vulnerable to Extreme Heat**

Health Indicator	Location		
	Rialto	San Bernardino County	California
Active Commuters <sup>1</sup>	2.09%	3.09%	8.99%
Children <sup>2</sup>	8.03%	7.41%	6.54%
Older Adults <sup>3</sup>	8.8%	10.9%	13.6%
Outdoor Workers <sup>4</sup>	6.58%	6.15%	6.36%

**Source:** Public Health Alliance. 2022. “The California Healthy Places Index.” <https://map.healthypacesindex.org/>.  
 U.S. Census Bureau. 2021. American Community Survey (ACS) 5-Year Estimates. Table B08006.

**Color Code Compared to the State:**

■ Quartile 1 = Least Vulnerable, ■ Quartile 2 = Somewhat Vulnerable, ■ Quartile 3 = Vulnerable, ■ Quartile 4 = Most Vulnerable

**Note:** The table is colored to provide an understanding of the rate of populations vulnerable to extreme heat and does not indicate that certain traits are overall “good” or “bad.”

- 1 Percent of workers who commute to work by transit, walking, or cycling
- 2 Percent of residents under 5 years old
- 3 Percent of residents 65 years and older
- 4 Percent of residents who work outdoors. This does not include people who live outside of Rialto and work outdoors in Rialto.

**HOW**

Extreme heat is addressed by the City in the form of the urban tree canopy and a cooling center program. The Rialto General Plan requires street trees, which provide shade for sidewalks. The City also operates three cooling centers in Downtown Rialto. The hours of these cooling centers are expanded during extreme heat events and a free shuttle is provided for those who cannot reach a cooling center on their own. However, many extreme heat programs only operate if the temperature reaches 100°F, while many vulnerable populations can have adverse health effects at lower temperatures. The San Bernardino County Transit Authority (SBCTA) Guidebook promotes shade protection at transit stops, cooling centers, and adjustments to asphalt binder grades for future temperature projections. As of 2023, Rialto has 192 bus stops and 63 have shelters providing shade. More shelters are planned to be added in the future.

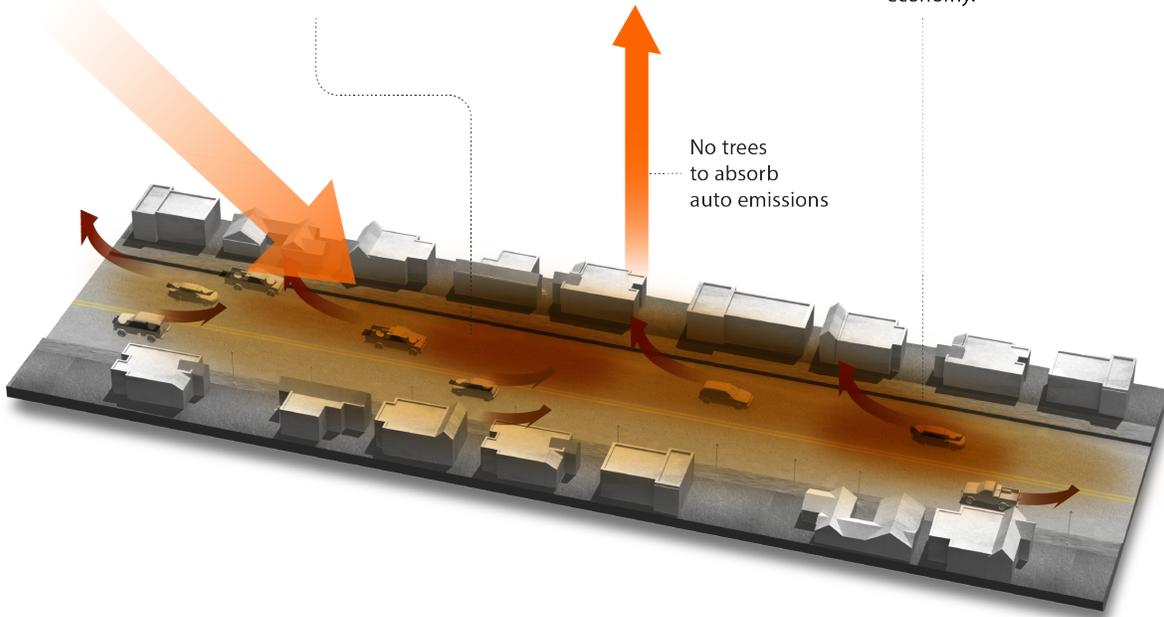


**Exhibit 5.1. Greenery and the Urban Heat Island Effect**

# Greenery and the urban heat island effect

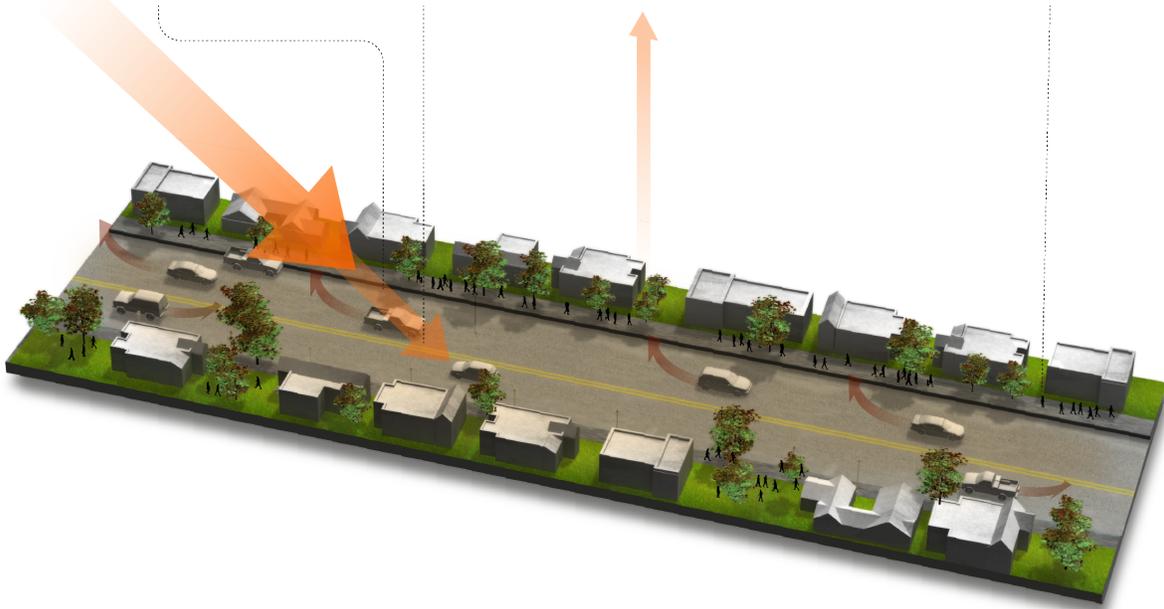
## No Greenery

- 1 Solar energy is emitted by the sun.
- 2 Heat is absorbed and retained by dark, urban surfaces.
- 3 Heat is slowly emitted throughout the day and evening, increasing temperatures.
- 4 Increased temperatures discourage pedestrian traffic, negatively impacting local economy.



## With Greenery

- 1 Solar energy emitted by the sun partially absorbed by trees.
- 2 Light surfaces absorb, retain less heat.
- 3 Auto emissions partially absorbed by trees.
- 4 Cleaner air, cooler weather creates a pedestrian-friendly environment positively impacting local businesses.



## Flooding

### WHAT

Rialto and surrounding areas are subject to unpredictable seasonal rainfall. During intense rainfall, the geographic and geologic characteristics typical of the Upper Santa Ana River Valley, where Rialto is located, make this area especially vulnerable to flood hazards. The gently sloping alluvial fan upon which Rialto sits emanates from a deep canyon within the San Gabriel Mountains; this contributes to Rialto's vulnerability to flood hazards.

In the early 1900s, the region was subjected to episodes of severe flooding. In response, the U.S. Army Corps of Engineers, the San Bernardino County Flood Control District, and the City built numerous structures to control flood hazards. The first line of defense against flooding is a series of eight levees constructed along the western edge of Lytle Creek. Next, a regional storm drain system was built and is maintained by the San Bernardino County Flood Control District. Within Rialto, this system includes three buried pipelines (the East Fontana Storm Drain, the East Rialto Storm Drain, and the Rialto-Baseline Storm Drain). The region's most significant and largest drainage facility is the Rialto Channel, a mostly open earthen and concrete-lined channel that extends from the Cactus Basins in the north-central part of Rialto south to the Santa Ana River. The County system also includes several retention basins that provide flood control and serve as recharge basins.

The developed portions of Rialto are served by an extensive municipal storm drain network that is maintained by the City and designed to collect all urban runoff. These eventually drain to the Santa Ana River. While existing flood control structures have provided significant protection from uncontrolled flooding, inadequacies in the local drainage system have caused occasional localized flooding.

### WHEN

Flooding is more likely to occur in the winter months (December, January, February) when Rialto receives the most rain. Climate change is predicted to increase the number of extreme rain events, when large amounts of rain fall over a short period of time, does not have time to soak into the ground, and overwhelms stormwater infrastructure.

Flooding is expected to increase in Rialto over the next century due to an increase in the number of extreme precipitation events. Average precipitation this century is projected to be consistent with late 20th century precipitation levels; however, the intensity of extreme precipitation events is predicted to increase through the end of the century under a medium-emissions scenario.<sup>4</sup> As a result, Rialto will likely experience more intense floods more often.

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4 CEC (California Energy Commission). 2019. "Cal-Adapt." <https://cal-adapt.org/tools/extreme-precipitation>

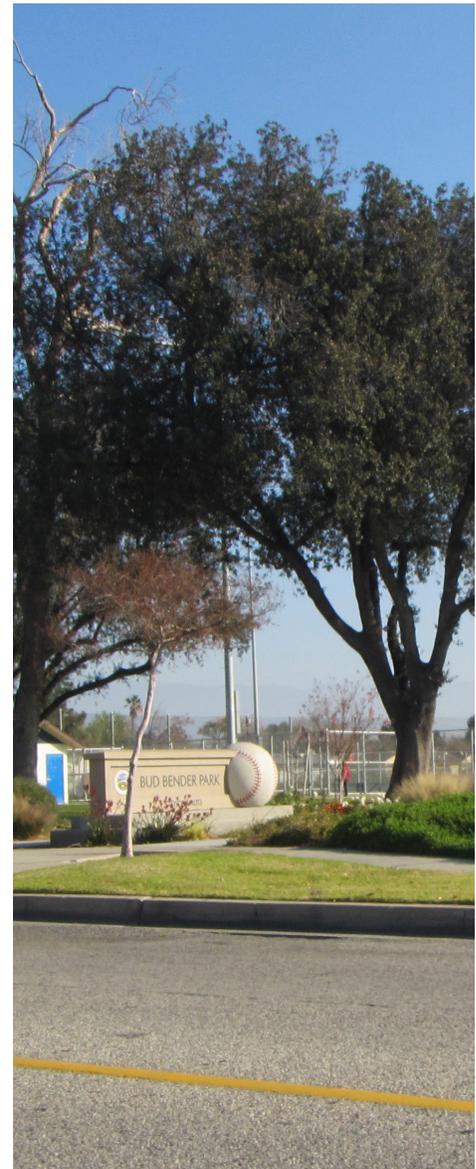
**WHERE**

Most flooding events are anticipated to occur within the current **100- and 500-year flood plain** boundaries, which are likely to endure intense 100- and 500-year floods more often than these intervals. As indicated in **Exhibit 5.2**, Community Exposure to Flooding, portions of Rialto are vulnerable to inundation from 100-year flood events associated with Lytle Creek and in a low-lying area of Sycamore Flat. Rialto's roads generally avoid floodplains, although certain roads border them and could flood over in the event of a major storm, such as North Riverside Avenue and East Highland Avenue. Areas of low flood risk per FEMA's flood mapping can also experience localized flooding if stormwater infrastructure becomes blocked or if capacity is inadequate for the particular extreme precipitation event, especially in highly impervious areas with limited stormwater infrastructure. During public engagement residents expressed recurring or recent flooding as a concern for Baseline Avenue, Sycamore Avenue, and Ayala Avenue.

Though unlikely to occur, dam breach inundation also poses significant risk of flooding for Rialto. Cactus Basin No. 3, located in central Rialto, has an "extremely high" downstream flooding hazard, according to California Dam Breach Inundation Maps of the California Division of Safety of Dams.<sup>5</sup> This hazard classification was determined based on probable loss of human life, economic loss, environmental damage, impacts to critical facilities (also known as essential service facilities), or other significant impacts potentially caused by the failure of the dam, and does not include potential for dam failure in its classification.<sup>6</sup> **Exhibit 5.3**, Dam Inundation Zones, displays areas that would be at risk of inundation if Cactus Basin No. 3 were to fail.

**100- AND 500-YEAR FLOOD PLAIN**

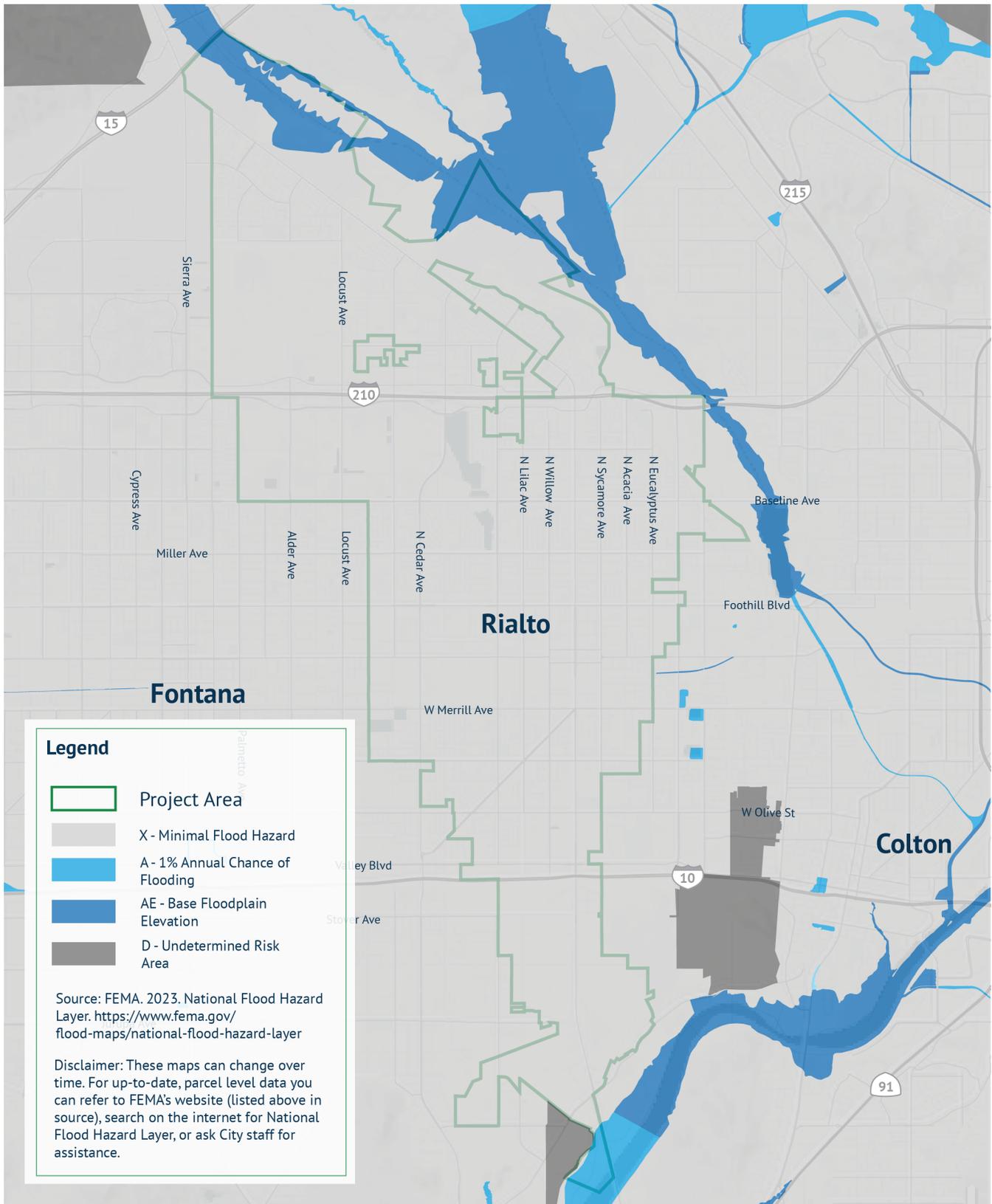
Flood plains are determined by the Federal Emergency Management Agency. A 100-year flood plain is an area with a 1% chance of flooding annually, while 500-year flood plains have a 0.2% chance of flooding annually.



<sup>5</sup> California Department of Water Resources. 2023. "California Dam Breach Inundation Maps." Accessed February 2023. <https://fmds.water.ca.gov/maps/damim/>.

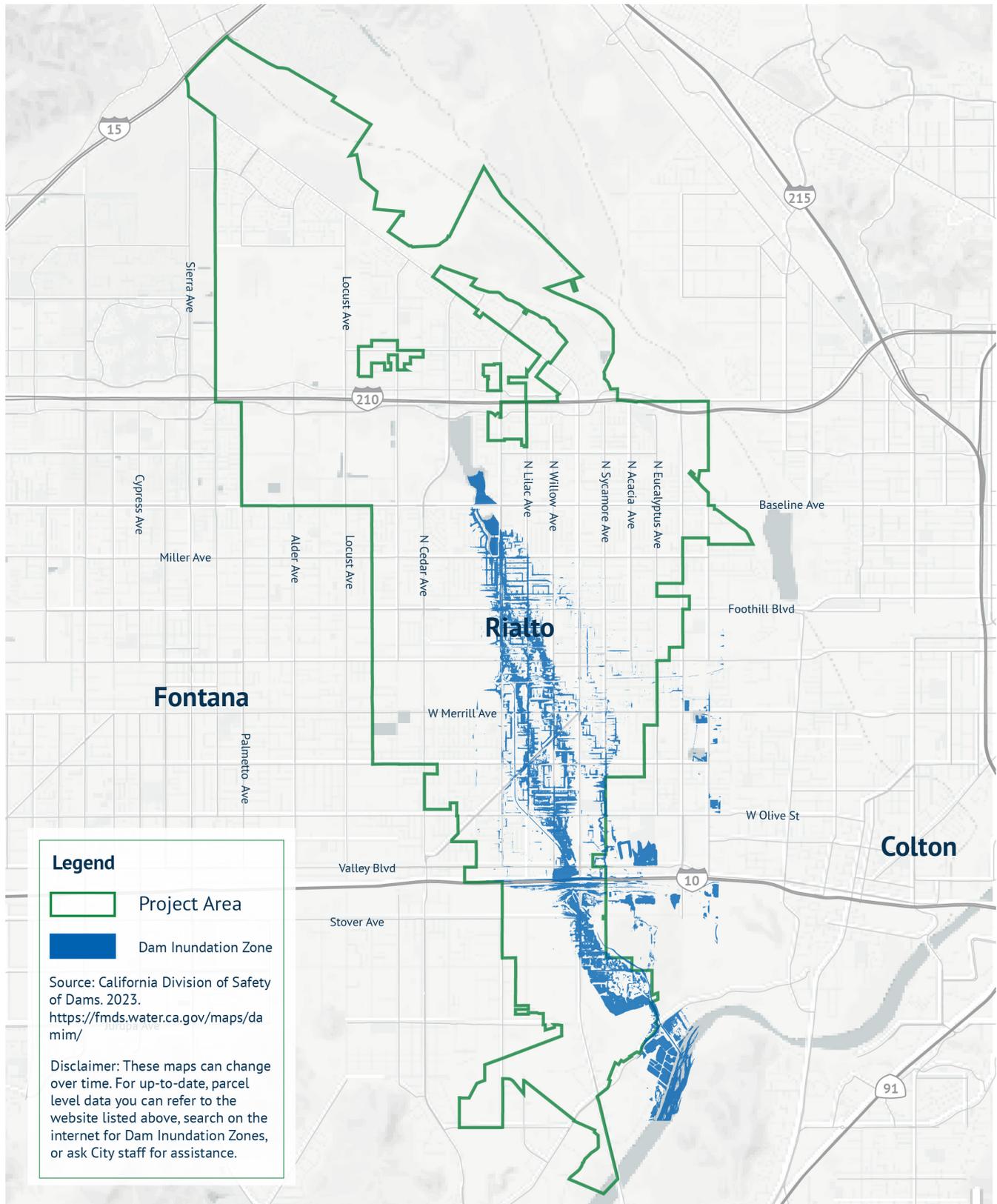
<sup>6</sup> Title 23 of the California Code of Regulations (CCR), Section 335.4. <https://resources.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Division-of-Safety-of-Dams/Files/Statutes-and-Regs-docs/Enforcement-Regulations-Text-Revision-August-2021.pdf>.

**Exhibit 5.2. Community Exposure to Flooding**



**Flood Zones**

### Exhibit 5.3. Dam Inundation Zones



## Dam Inundation Zones

Rialto General Plan Update

**WHO**

Flooding caused by extreme precipitation events presents several hazards to human life and health. The primary risk of flooding to safety is drowning, but other effects include building damage, mold, and respiratory damage. Certain population characteristics, including disability, linguistic isolation, car access, and age (young children and older adults), increase sensitivity to flooding by reducing the ability to evacuate or escape floods. Vulnerability to flooding can also increase due to social isolation and/or physical disabilities leading to difficulty evacuating during a flood event. Additionally, low-income renters can face greater challenges recovering from flood events because they are less likely to have renter's insurance and can face higher levels of displacement and homelessness if their residence is damaged during a flood event. **Table 5-2** presents the proportion of Rialto residents who have a disability, who are low-income renters who pay more than 50% of their income towards housing costs, who speak English "less than very well," and who are young children or older adults. There is a high rate of Rialto residents with limited English ability, a relatively high rate of residents who are severe housing-burdened low-income renters, and a significant proportion of the population are children, each of whom face increased vulnerability.

**Table 5-2. Populations Vulnerable to Flooding**

Health Indicator	Location		
	Rialto	San Bernardino County	California
Disability <sup>1</sup>	9.41%	11%	10.6%
Low Income Severe Housing-Burdened Renters <sup>2</sup>	27.7%	27.2%	26.2%
Speaks English Less than Very Well <sup>3</sup>	22%	14.9%	17.8%
Children <sup>4</sup>	8.03%	7.41%	6.54%
Older Adults <sup>5</sup>	8.8%	10.9%	13.6%

**Source:** Public Health Alliance. 2022. "The California Healthy Places Index." <https://map.healthylplacesindex.org/>.

**Color Code Compared to the State:**

■ Quartile 1 = Least Vulnerable, ■ Quartile 2 = Somewhat Vulnerable, ■ Quartile 3 = Vulnerable, ■ Quartile 4 = Most Vulnerable

- 1 Percent of people who have a disability
- 2 Percent of low-income renters who pay more than 50% of their income towards housing costs
- 3 Percent of people aged 5 and older who speak English less than very well
- 4 Percent of residents under 5 years old
- 5 Percent of residents 65 years and older

**HOW**

Title 24 of the California Code of Regulations addresses floodplain management and flood hazard mitigation. Specifically, the regulations require local governments to adopt and enforce floodplain management ordinances to regulate development in flood hazard areas, require permits for certain activities in floodplains, and establish requirements for building elevations, flood-resistant materials, and drainage systems.<sup>7</sup>

The City of Rialto General Plan and LHMP outline several strategies to mitigate flood hazards, including identification of flood hazard areas, implementation of land use policies that discourage development in flood-prone areas, and maintenance and improvement of stormwater infrastructure. Ordinance 1318 (2001) also addresses reducing flood losses, consistent with Federal Emergency Management Agency (FEMA) floodplain management standards and the California Department of Water Resources' Floodplain Management Regulations. The ordinance requires that new development and redevelopment projects include stormwater management plans to address potential flooding impacts and prohibits certain activities that could cause a discharge of pollutants into stormwater drains. Many of the City's actions are intended to mitigate flood hazards; however, efforts surrounding preparedness for, response to, and recovery from flooding represent opportunities for improvements.



<sup>7</sup> 24 CCR Part 2, Chapter 10. <https://codes.iccsafe.org/content/CABC2022P1/chapter-10-means-of-egress>.

## Geologic and Seismic Hazards

### WHAT

Geologic hazards are related to the movement of earth, including soil, rock, debris, or other material. Some common geologic hazards that can impact safety include landslides, mudslides, and rapid subsidence. Landslide and mudslide events happen when debris and earthen materials fall down a slope. Mudslides occur specifically when the soil is saturated with water from rain or some other source. The landslide or mudslide can pose threats to human life, buildings, and infrastructure. Additionally, if soils and debris are contaminated, they can pose a hazardous waste concern (see the Hazardous Materials section). Subsidence is when a land surface lowers (either slowly over time or rapidly). Liquefaction and sink holes are two forms of subsidence that can occur rapidly. Rapid subsidence can pose threats to human life, buildings, and infrastructure.

Earthquakes can affect widespread areas, trigger many secondary effects, and overwhelm the ability of local jurisdictions to respond. Although it is impossible to predict the timing of seismic events, sound planning practices and public education can help minimize the associated effects.

### *Surface Fault Rupture*

Surface fault rupture refers to the physical displacement of the ground during an earthquake. Although ground rupture usually results in minimal damage, structures located close to a rupturing fault may be severely damaged.

### *Ground Shaking*

The greatest source of earthquake damage is caused by ground shaking. Rialto is susceptible to ground shaking caused by the activity of several local fault systems.

The San Jacinto, San Andreas, and Cucamonga faults have the potential of generating earthquakes of maximum magnitudes ranging from 6.7 to 8.0. Shaking at these levels would cause moderate damage to buildings constructed with the latest building codes.

### WHEN

Geologic hazards can have several causes, which makes them difficult to predict. Landslides and mudslides can be caused by earthquakes, heavy storms, human activity, or other events able to disturb at-risk slopes.<sup>8</sup> Rialto has no history of landslides or liquefaction recorded by the California Geological Survey. Climate change does not directly impact landslides, but it does impact the hazards that can cause landslides. Climate change is not projected to change the overall amount of rain in Southern California, but rain is projected to decrease in frequency and increase in intensity. Severe rainfall causes flooding, landslides, and soil erosion and jeopardizes functionality or integrity of infrastructure systems. Infrastructure built with soil (such as earthen dams, levees, or embankments) or that interface with soil

8 Highland, L.M., and P. Bobrowsky. 2008. *The Landslide Handbook—A Guide to Understanding Landslides*. Reston, Virginia, U.S. Geological Survey Circular 1325. [https://pubs.usgs.gov/circ/1325/pdf/C1325\\_508.pdf](https://pubs.usgs.gov/circ/1325/pdf/C1325_508.pdf).

(for example roads, bridge, pipelines, and foundations) are often more vulnerable.<sup>9</sup> Wildfires are also projected to increase in Southern California, which could increase landslide risk (see the Wildfire section).

Regarding earthquakes, Rialto has experienced moderate to strong ground shaking associated with events such as the 1812 Wrightwood earthquake (estimated 7.5 magnitude), 1899 Cajon Pass earthquake (estimated 5.7 magnitude), 1933 Long Beach earthquake (6.4 magnitude), 1971 Sylmar earthquake (6.6 magnitude), and 1994 Northridge earthquake (6.7 magnitude). Several earthquakes were associated with the San Jacinto, San Andreas, and Cucamonga faults (see **Exhibit 5.4**). The most recent lower-magnitude earthquakes that occurred near Rialto were a 4.8 magnitude earthquake on April 6, 1994, 2 kilometers southeast of Running Springs in the San Bernardino National Forest; a 4.6 magnitude earthquake on October 2, 1985, 3 kilometers south-southeast of Loma Linda; and a 4.6 magnitude earthquake in April 1965 north-northeast of Fontana.

In the Southern California region, magnitude 7 or greater earthquakes have a 76% chance to occur within 30 years; magnitude 8 or greater earthquakes have a 5% likelihood to occur within the same timeframe<sup>10</sup> (see **Table 5-3** below).

**Table 5-3. Southern California Region Earthquake Likelihoods**

Magnitude (greater than or equal to)	Average repeat time (years)	30-year likelihood of one or more events
5	0.12	100%
6	2.3	100%
6.7	12	93%
7	25	76%
7.5	92	28%
8	645	5%

Though models such as the UCERF3 can forecast earthquakes with probability measures, it is impossible to predict with certainty when earthquakes will occur or how strong the ground shaking will be.

#### WHERE

In general, liquefaction is unlikely to occur in most areas of Rialto. However, liquefaction is a concern in the Lytle Creek Wash area where there are sandy soils and a high water table and in the areas near the Santa Ana River due to an extremely high water table.<sup>11</sup>

<sup>9</sup> AghaKouchak, A. et al. August 2018. "Projected Changes in California's Precipitation Intensity-Duration-Frequency Curves." California's Fourth Climate Change Assessment. [https://www.energy.ca.gov/sites/default/files/2019-11/CCA4-CEC-2018-005\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2019-11/CCA4-CEC-2018-005_ADA.pdf).

<sup>10</sup> SCEC (Southern California Earthquake Center). 2014. "The Third Uniform California Earthquake Rupture Forecast (UCERF3)." <https://www.scec.org/ucerf>.

<sup>11</sup> City of Rialto. 2020. Emergency Operations Plan. <https://www.yourrialto.com/472/Emergency-Management>.

Rialto is located in a region with sharp contrasts in terrain. The gently sloping lands in south Rialto abruptly confront the rise of the San Gabriel Mountains to the north – a result of tectonic movement of the San Andreas Fault and its subsidiary faults. The poorly consolidated alluvium underlying virtually all properties in Rialto can result in devastating effects in the event of an earthquake. Seismic hazards and their secondary effects have the greatest potential for causing devastating damage citywide.

The State Alquist-Priolo Fault Zoning Act was enacted with the purpose of mitigating the hazard of fault rupture by prohibiting buildings along all active fault lines. Current Alquist-Priolo Earthquake Fault Zones in and near the Rialto area are shown on **Exhibit 5.4**. As **Exhibit 5.4** indicates, significant faulting occurs along the Lytle Creek Wash. The San Andreas fault—the feature that defines the coming together of the Pacific and North American tectonic plates—crosses just to the northeast, through the City of San Bernardino. Rialto sits atop the Pacific Plate, which is moving north relative to San Bernardino.

**WHO**

Assets like homes or infrastructure can be more susceptible to geologic and seismic hazards based on location, but no population groups are specifically more sensitive to an earthquake, landslide, mudslide, liquefaction, or subsidence based on their inherent traits. However, certain groups may have more difficulty during the recovery stage that follows a major geologic or seismic hazard event. People in low-income households or renters may be displaced and, if they lack insurance, may be without compensation for belongings lost as a result of the hazard. Others may struggle with the accessibility of existing emergency response communication methods. For example, some older adults may have difficulty with online or digital forms of communication. Language can be another barrier to communication (see **Table 5-4**).

**Table 5-4. Populations Vulnerable to Geologic and Seismic Hazards**

Health Indicator	Location		
	Rialto	San Bernardino County	California
Low Income Housing Burdened Renters <sup>1</sup>	27.7%	27.2%	26.2%
Older Adults <sup>2</sup>	8.8%	10.9%	13.60%
People who Speak English Less than Very Well <sup>3</sup>	22%	14.9%	17.8%

**Source:** Public Health Alliance. 2022. “The California Healthy Places Index.” <https://map.healthylplacesindex.org/>.

**Color Code Compared to the State:**

■ **Quartile 1 = Least Vulnerable**, ■ **Quartile 2 = Somewhat Vulnerable**, ■ **Quartile 3 = Vulnerable**, ■ **Quartile 4 = Most Vulnerable**

- 1 Percent of low-income renters who pay more than 50% of their income on housing costs.
- 2 Percent of people aged 65 and older
- 3 Percent of people aged 5 and older who speak English less than very well

**HOW**

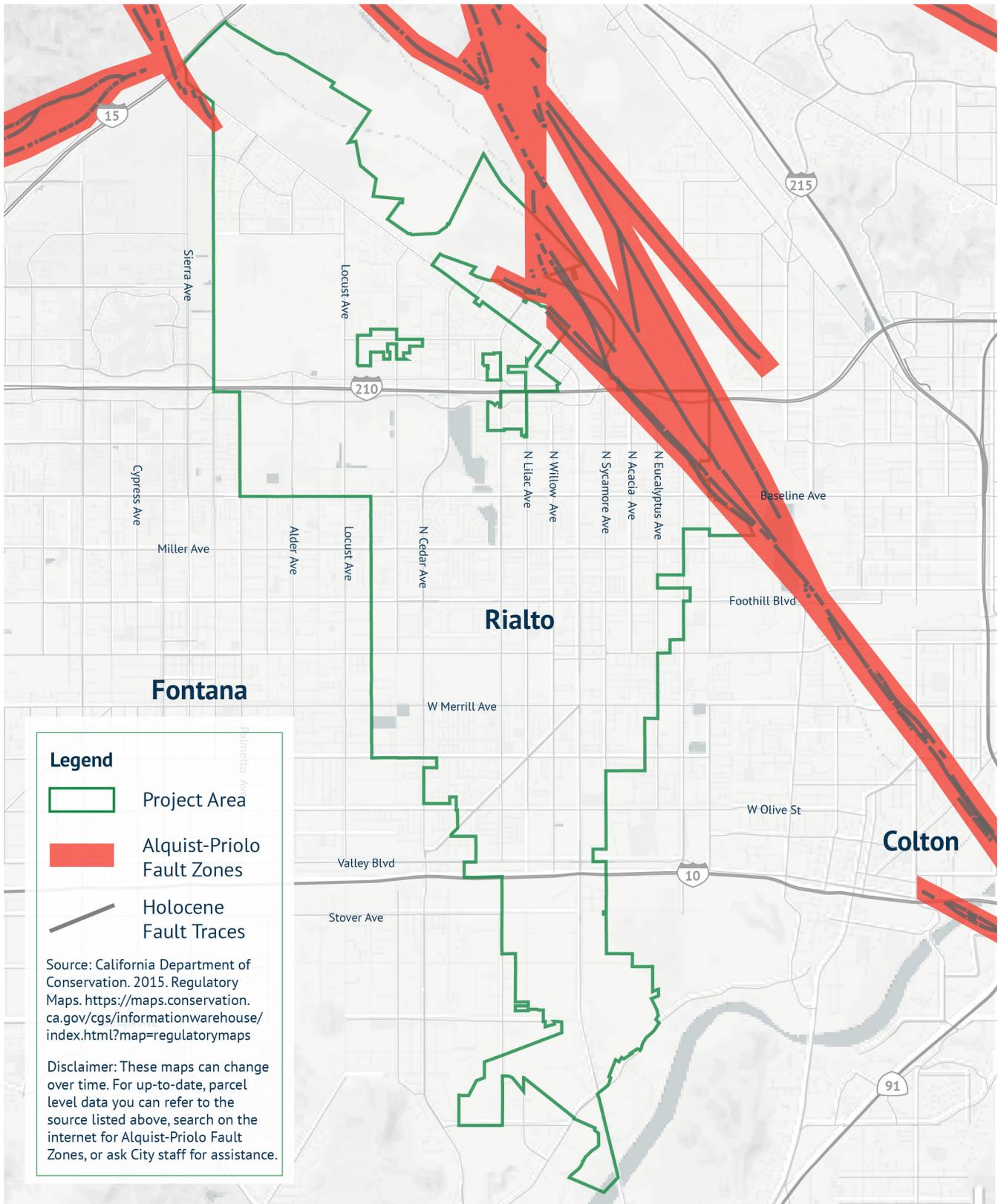
Under the Alquist-Priolo Earthquake Fault Zoning Act, enacted in 1972, cities are required to regulate development within the mapped zones of active earthquake faults. Specifically, cities and counties must establish setback requirements prohibiting the construction of certain structures for human occupancy within 50 feet of an active fault trace. They must also require that structures located within 500 feet of an active fault trace be subject to additional geologic investigations to identify potential hazards and building design considerations to ensure seismic safety. Finally, cities and counties must notify property owners of any known or suspected fault zones on their properties. Several other laws set requirements and standards for mitigating seismic hazards, including the following:

- California Building Standards Code (Title 24): This code sets minimum requirements for building design and construction to resist seismic forces.
- Seismic Hazard Mapping Act: This law requires the California Geological Survey to identify and map areas of the state that are prone to seismic hazards.
- California Disaster Act: This law requires cities and counties to develop and adopt hazard mitigation plans to minimize the impact of natural disasters, including earthquakes.

The City has adopted the California Building Standards Code, so any design and construction within Rialto must be consistent with State building codes. Furthermore, Rialto’s LHMP describes potential impacts of seismic hazards, including potential fatalities, injuries, displacement, and potential economic losses.

Unreinforced masonry buildings have a high risk of damage and collapse in the event of ground shaking. Such buildings should be identified to document at-risk structures that should be retrofitted to minimize damage; however, the City does not currently maintain a list of unreinforced masonry buildings.

**Exhibit 5.4. Seismic Hazards**



**Seismic Hazards**

## Hazardous Materials

### WHAT

Hazardous materials are substances that can cause death, serious illness, or hazard to human health or the environment when not properly treated, stored, transported, or disposed of. Many household substances are considered hazardous, including gasoline, refrigerants, paint, and some gardening supplies, and nearly all households and businesses have small amounts of hazardous waste. Certain businesses, such as gas stations, car repair shops, and dry cleaners, generate larger amounts of hazardous waste. Hospitals, clinics, and laboratories also generate medical waste, which can be hazardous. The pollution of water from various sources can also create water that is hazardous to consume. If hazardous waste is not properly disposed of it can create the need for cleanup sites, which require specialized cleanup procedures determined by the Department of Toxic Substances Control.

The primary concern associated with hazardous material release is the short- and long-term effects on public health and the environment. The U.S. Environmental Protection Agency (EPA) has defined a hazardous material as any material that, due to quantity, concentration, and physical or chemical characteristics, poses a significant potential hazard to human health or the environment. To reduce the possibility for a hazardous material release, Federal, State, and local agencies implement and enforce stringent requirements on hazardous waste generators and users regarding storage, use, manufacturing, and handling of hazardous materials. These regulations help prevent and mitigate hazardous waste pollution.

### WHEN

Given the existence of heavy industry with Rialto, hazardous materials present an ongoing but largely preventable threat. There are several sites at which hazardous materials cleanup is ongoing and several more at which cleanup activities have been completed (see below for more information on these sites). Despite mitigation measures, hazardous materials spills may occur in the future. Risks include cascading impacts if hazards such as earthquakes and flooding cause a hazardous materials spill.

Historically, some areas of Rialto were used for the manufacturing of rocket fuel and fireworks. U.S. Department of Defense contractors began making rockets locally in the 1950s and fuel residue has since leaked into the region's underground water basin. The seepage has created a massive plume of perchlorate in the groundwater that in 2007 was approximately 6 miles long and 2 miles wide. Settlements totaling as much as \$100 million have resulted in a comprehensive cleanup of the site, including treating contaminated groundwater, which was completed in September 2022.<sup>12</sup>

### WHERE

Rialto has a significant amount of industrial and commercial land uses, and many businesses use, store, transport, and handle hazardous materials regularly (see **Exhibit 5.5**, Permitted Facilities Dealing with

12 EPA (U.S. Environmental Protection Agency). January 31, 2014. "Reference News Release: EPA's \$11 Million Cleanup Settlement Helps Protect Drinking Water in Rialto." <https://www.epa.gov/enforcement/reference-news-release-epas-11-million-cleanup-settlement-helps-protect-drinking-water>.

Hazardous Waste). These include several Large-Quantity Generators and a handful of Small-Quantity Generators, including several in the unincorporated area of Bloomington. There are also over a dozen registered transporters of hazardous waste within Rialto.

In addition to sites actively handling hazardous waste, there are also cleanup sites. Sites with large concentrations of hazardous materials are catalogued by EnviroStor. EnviroStor is a data management program operated by the DTSC that is used to monitor, investigate, permit, and cleanup sites with known contaminants. Rialto contains 20 EnviroStor sites with hazardous materials that require cleanup. Of these EnviroStor sites, 17 are within areas identified as DACs in CalEnviroScreen 4.0, or areas disproportionately impacted by multiple sources of pollution. These sites are located throughout Rialto, but there is a slightly higher concentration of them in the southern and central areas of Rialto where industrial uses are located. Active hazardous waste cleanup sites per EnviroStor can be seen in **Exhibit 5.6**.

Geotracker is another database that contains records for hazardous waste **cleanup program sites**.<sup>13</sup> This database is focused on sites that have potential to impact groundwater. There are 23 active Geotracker sites in Rialto and several others nearby in the City of Colton. These sites are heavily concentrated in the two industrial areas immediately south of I-10 and north of the former Rialto Airport (see **Exhibit 5.7**).

In addition to stationary hazardous waste sources, freight rail that transports hazardous materials may lead to hazardous waste spills in the event of derailment. The Burlington Northern Santa Fe (BNSF) Railway and the Union Pacific (UP) Railroad, each Class I railroads, are two of seven major freight railroads in the United States, and each run through Rialto.

### ***Leaking Underground Fuel Tanks***

According to the State Water Quality Control Board, nearly four dozen leaking underground fuel tank facilities have been reported in Rialto. Most have been remediated. The Regional Water Quality Control Board, in cooperation with the Office of Emergency Services, provides oversight and conducts inspections of all underground tank removals and installation of new ones. Consistent with State laws, the City will continue to pursue remediation of leaking underground fuel tank sites.

### ***Hazardous Materials Transportation Routes***

Hazardous materials are transported through or near Rialto along I-15 and I-10, SR-210, and local roads and railroad lines. Releases of hazardous materials from trucks or trains can occur during an accident. The California Highway Patrol is the responding agency in the event of a spill on the freeways, but local emergency response agencies, such as police and fire departments, are responsible for additional

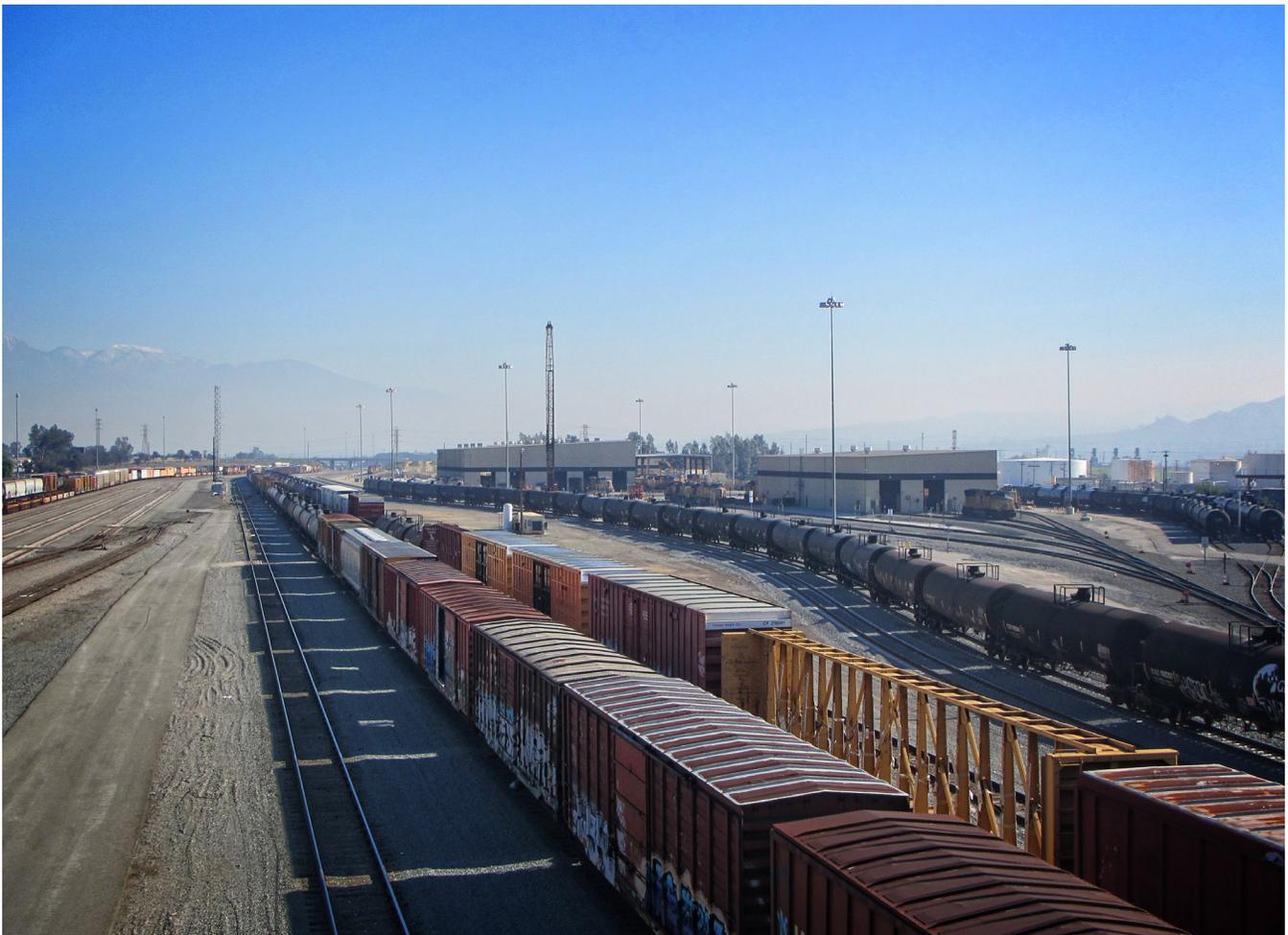
#### **CLEANUP PROGRAM SITES**

include, but are not limited to, pesticide and fertilizer facilities, rail yards, ports, equipment supply facilities, metals facilities, industrial manufacturing and maintenance sites, dry cleaners, bulk transfer facilities, refineries, mine sites, landfills, Resource Conservation and Recovery Act/ Comprehensive Environmental Response, Compensation, and Liability Act (RCRA/CERCLA) cleanups, and some brownfields.

<sup>13</sup> State Water Resources Control Board. 2023. "GeoTracker." <https://geotracker.waterboards.ca.gov/datadownload>

enforcement and routing assistance. Per Federal and State laws, all transportation of hazardous materials is conducted under strict protocol. Material data sheets for each substance being transported are carried by the conductor. These data sheets are designed to help emergency response personnel identify the most appropriate action to contain the specific substances involved in the spill.

In addition to auto and rail transport of hazardous materials, there are also pipelines which transport hazardous liquids. The Calnev Pipeline is a buried pipeline that runs from Los Angeles oil refineries passing through Rialto and going on to northern Las Vegas.<sup>14</sup> This pipeline carries gasoline, jet fuel, and diesel fuel. This pipeline is owned and operated by Kinder Morgan Energy Partners. Operations, construction and any future expansions must adhere to regulations set forth by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA).<sup>15</sup> Federal Agents from PHMSA and state agents from CAL FIRE's Office of the State Fire Marshall, Pipeline Safety Division have responsibility for inspecting the CalNev Pipeline.<sup>16</sup>



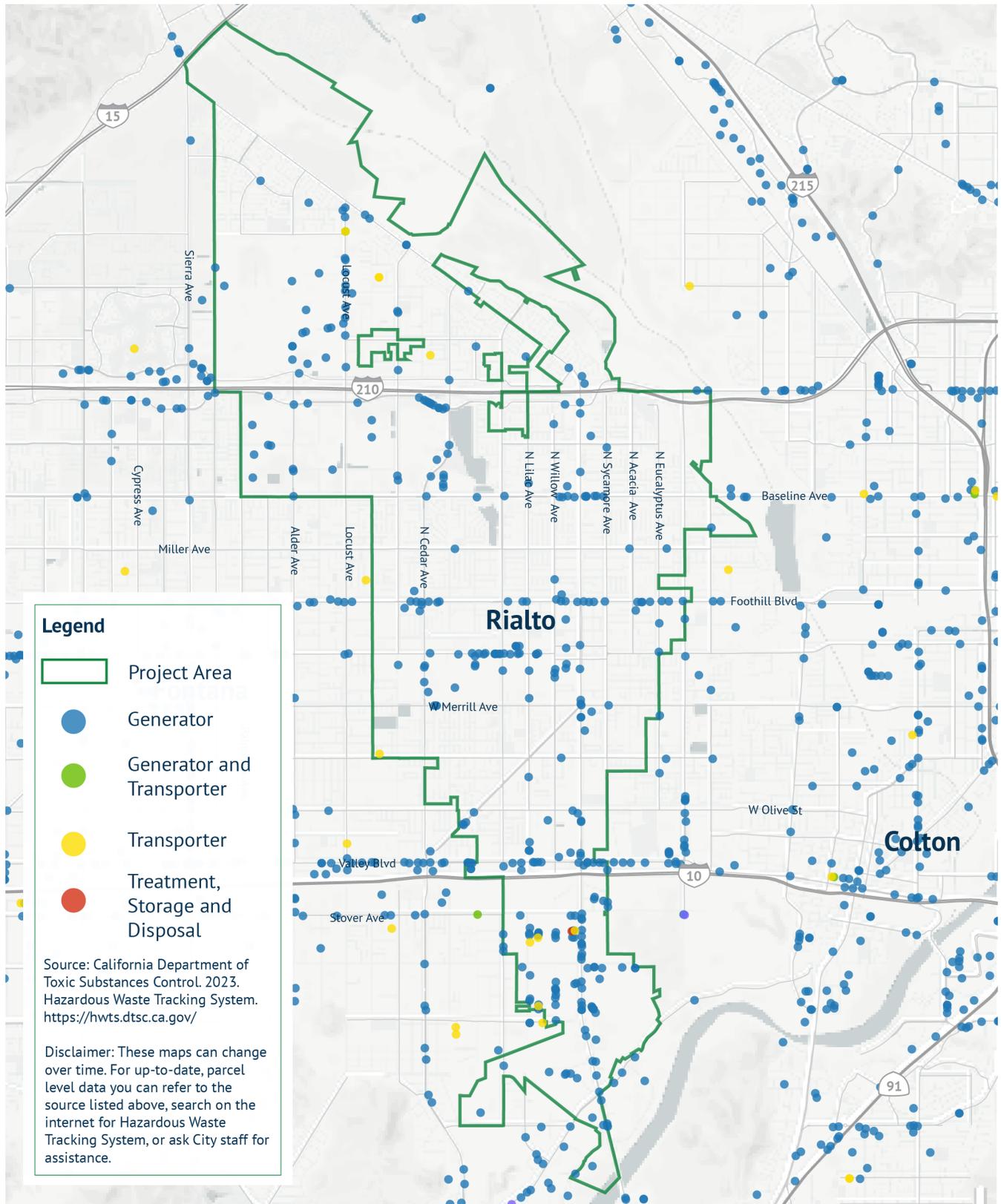
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14 Kinder Morgan. 2023. "Products Pipelines." <https://www.kindermorgan.com/Operations/Products/Index>

15 U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration. 2023. Safety Awareness Overview. <https://www.phmsa.dot.gov/safety-awareness/pipeline/safety-awareness-overview>

16 CAL FIRE. 2023. Pipeline Safety and CUPA. <https://osfm.fire.ca.gov/divisions/pipeline-safety-and-cupa/>

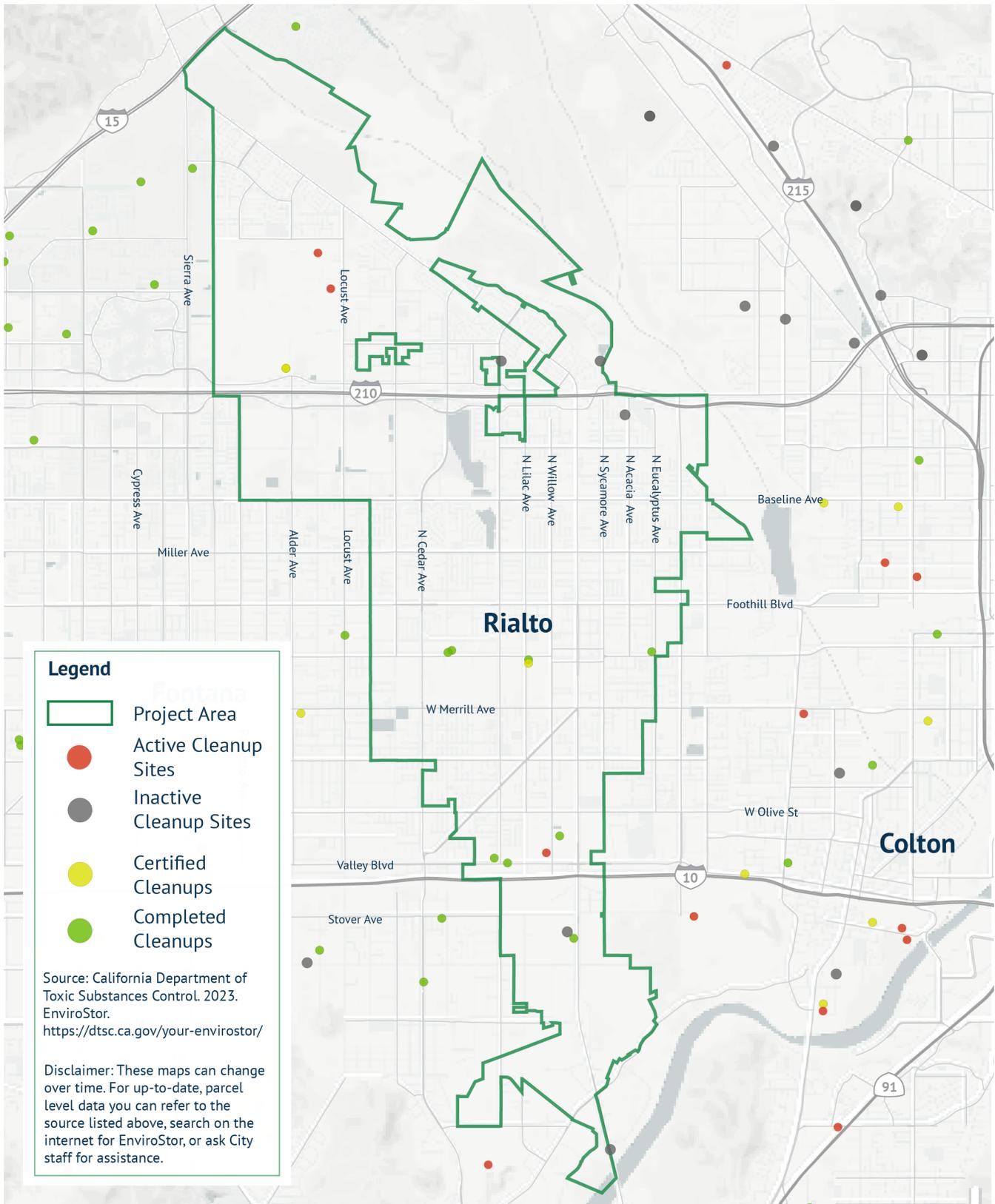
**Exhibit 5.5. Permitted Facilities Dealing with Hazardous Waste**



**Permitted Facilities Dealing with Hazardous Materials**

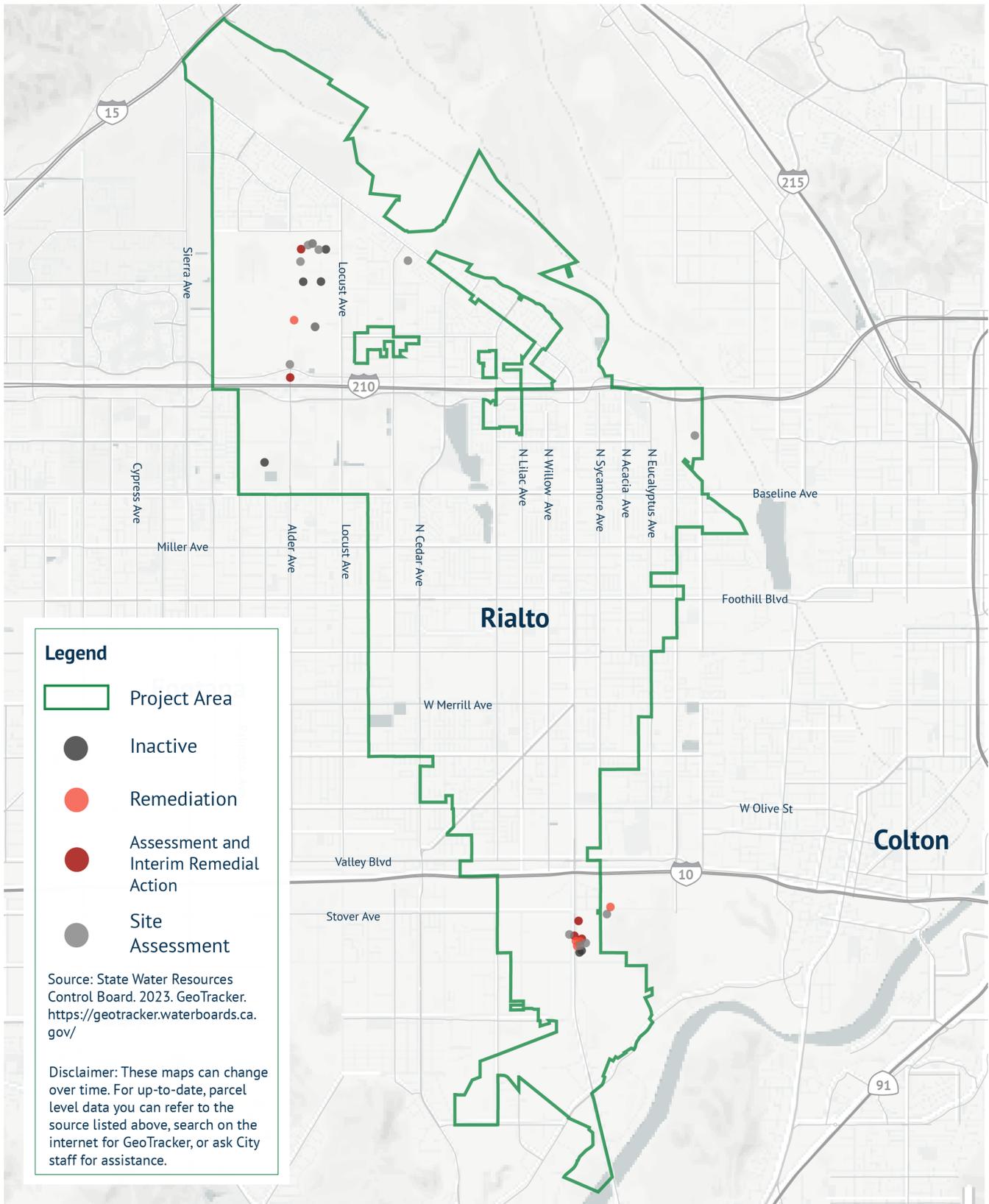
Rialto General Plan Update

### Exhibit 5.6. EnviroStor Cleanup Sites



## EnviroStor Cleanup Sites

**Exhibit 5.7. GeoTracker Cleanup Sites**



**GeoTracker Cleanup Sites**

Rialto General Plan Update

**WHO**

Children, older adults, and people with preexisting health conditions are more at risk of adverse health impacts from hazardous waste. Rialto has a low number of older adults and large percentage of children under 5 years of age relative to the State (see Table 5-5). Due to the large number of cleanup sites within Rialto, the risk posed by hazardous waste is somewhat high, particularly for young children; however, implementing site assessments and remediation plans significantly reduce this risk.

**Table 5-5. Populations Vulnerable to Hazardous Waste**

Health Indicator	Location		
	Rialto	San Bernardino County	California
Children <sup>1</sup>	8.03%	7.41%	6.54%
Older Adults <sup>2</sup>	8.8%	10.9%	13.6%

**Source:** Public Health Alliance. 2022. "The California Healthy Places Index." <https://map.healthyplacesindex.org/>.

**Color Code Compared to the State:**

■ Quartile 1 = Least Vulnerable, ■ Quartile 2 = Somewhat Vulnerable, ■ Quartile 3 = Vulnerable, ■ Quartile 4 = Most Vulnerable

1 Percent of people under 5 years old

2 Percent of people aged 65 and older

**HOW**

State and Federal regulations require proper storage, handling, and transportation of hazardous waste to protect human health and the environment. The California Department of Toxic Substances Control oversees hazardous waste management and enforces regulations established under the Hazardous Waste Control Act, which requires generators of hazardous waste to properly label, package, and store the waste on site and to use registered transporters to transport the waste to authorized treatment, storage, or disposal facilities. Federal regulations are established under the Resource Conservation and Recovery Act and are enforced by the EPA. This act establishes requirements to prevent releases and ensure proper management of hazardous waste throughout its lifecycle and applies to hazardous waste generators and transporters, as well as treatment, storage, and disposal facilities. The City of Rialto LHMP recommends several strategies to mitigate the risks associated with hazardous materials, such as maintaining an inventory of hazardous materials storage and transportation facilities, identifying potential risk areas, and improving emergency response capabilities in the event of a hazardous materials spill. The LHMP also includes discussions about the potential for cascading impacts if hazards such as earthquakes and flooding cause a hazardous materials spill.

Advocacy and community groups also play an important role in protecting residents from the effects of hazardous materials spills. Pollutant-burdened communities in which hazardous waste is generated, treated, stored, or disposed of are most at risk of impacts of spills. Advocacy and community groups help to raise concerns and advocate for expedited cleanups or changes to land use when needed.

## Wildfires

### WHAT

#### *Wildland Fires*

Several factors influence the frequency, location, and intensity of wildfire in southern California: the dry and warm climate, Santa Ana winds, topography, past fire suppression attempts, and human activities. They are known to spread more quickly on dry, windy days and move more easily in an uphill direction and in areas with higher-density vegetation. Wildfires are a natural and important part of the ecosystem but can become more intense and dangerous as a result of climate change and poor land management.

In Rialto, wildland fire hazards are of concern where development is adjacent to wildland areas, particularly in the northern portion of Rialto. Fires starting in the foothill areas or in the large open space in the northern part of the city can easily spread south and consume urban development, especially if pushed by the Santa Ana winds that blow from the Cajon Pass.

With the devastating wildfires of 2003 that affected mountain/urban interface areas in San Bernardino County (and other areas throughout Southern California), fire codes have become much more restrictive. Also, the City will look critically at any development proposal for in or near very high fire hazard severity zones to ensure appropriate safeguards are integrated into subdivision design, including ample defensible space zones and many access points.

#### *Urban Fires*

Structural fires, although less than 1% of the incidents that the Fire Department responds to on an annual basis, account for 55% to 60% of the yearly property losses in Rialto. Structural fires are of particular concern in high-density areas, where the potential for fire to spread from one building to the next is greater. Additionally, Rialto's commercial and industrial districts have many uses with a high potential for fires, which could impact nearby residential areas.

### WHEN

Wildfires are most common during the summer and fall, during which nearly 80% of annual wildfires occur. About 25% of annual wildfires occur during Santa Ana wind events, which typically occur from October to April and tend to be strongest in January but most frequent in December.<sup>17</sup>

The frequency and severity of wildfires is increasing both in California and globally due to climate change. Since 1950, spring and summer temperatures have warmed and spring snowmelt has occurred earlier, resulting in increasingly large areas burned by wildfires in California.<sup>18</sup> Moreover, since wildfires release carbon dioxide through vegetation combustion, larger wildfires lead to higher carbon dioxide emissions, further contributing to greenhouse gas emissions.<sup>19</sup>

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17 California Energy Commission. 2018. "Los Angeles Regional Report." California's Fourth Climate Change Assessment. [https://www.energy.ca.gov/sites/default/files/2019-11/Reg%20Report-%20SUM-CCCA4-2018-007%20LosAngeles\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2019-11/Reg%20Report-%20SUM-CCCA4-2018-007%20LosAngeles_ADA.pdf)

18 CARB (California Air Resources Board). 2023. "Wildfires and Climate Change." <https://ww2.arb.ca.gov/wildfires-climate-change>.

19 CARB. 2020. "Public Comment Draft: Greenhouse Gas Emissions of Contemporary Wildfire and Forest Management Activities." December 31, 2020. <https://ww2.arb.ca.gov>.

Climate change is likely to intensify the fall fire season by extending the dry season further into Santa Ana wind season. The Fire and Resource Assessment Program compiles a statewide spatial database of fire perimeters from Bureau of Land Management, National Parks Service, U.S. Forest Service, and California Department of Forestry and Fire Protection (CAL FIRE) fires, which as of 2023 represents fire perimeters throughout the State from 1950 through 2018, but does not include fires that burned under 10 acres. According to this database, approximately nine fires have occurred at least partially within the Rialto boundaries since 1959 (see **Exhibit 5.8**, Fire Perimeters). The most recent fire to burn inside of the city limits, labeled the Cactus fire, occurred in June 2010 and burned approximately 40 acres near Lytle Creek Wash. Large fires in 2003, the Old Fire, and 2007, the Harris Fire, caused dangerous air pollution, mass evacuations, loss of property, and loss of life in the greater Los Angeles region.

### WHERE

CAL FIRE identifies **Fire Hazard Severity Zones**, which delineate areas based on their expected probability of fire. **Exhibit 5.9** displays the northern portion of Rialto as being part of a Very High Fire Hazard Severity Zone. In areas identified as Fire Hazard Severity Zones, land development is governed by special State, County, and local codes and property owners are required to follow maintenance guidelines and development regulations aimed at reducing the amount and continuity of the fuel (vegetation) available.

Depending on where fires occur, fire protection responsibility can vary. There are Local, State, and Federal Responsibility Areas. The entirety of Rialto is within a Local Responsibility Area and is protected by the Rialto Fire Department. There are areas north of Rialto that are State and Federal Responsibility Areas, protected by CAL FIRE and the US Forest Service respectively.

### FIRE HAZARD SEVERITY ZONES

Fire Hazard Severity Zones are based on data and models of potential fuels over a 30-50 year time horizon, and their expected fire behavior and burn probabilities. This does not correlate directly to risk, as it cannot account for varying factors like vegetation management or building materials.

### WHO

People can be vulnerable to wildfire due to social or linguistic isolation and/or physical disabilities that lead to difficulty evacuating. Additionally, households without access to a car can face difficulty evacuating. People with pre-existing respiratory conditions, such as asthma, are more sensitive to hazardous air quality (i.e., smoke) caused by wildfires. Additionally, children and older adults are more vulnerable to health impacts from smoke exposure (see **Table 5-6**).

**Table 5-6. Populations Vulnerable to Wildfire**

Health Indicator	Location		
	Rialto	San Bernardino County	California
Speaks English Less than Very Well <sup>1</sup>	22%	14.9%	17.8%
Disability <sup>2</sup>	9.41%	11%	10.6%
Car Access <sup>3</sup>	95.4%	95.2%	92.9%
Asthma <sup>4</sup>	10.2%	9.91%	9.08%
Children <sup>5</sup>	8.03%	7.41%	6.54%
Older Adults <sup>6</sup>	8.5%	10.9%	13.6%

**Source:** Public Health Alliance. 2022. "The California Healthy Places Index." <https://map.healthylplacesindex.org/>.

**Color Code Compared to the State:**

■ Quartile 1 = Least Vulnerable, ■ Quartile 2 = Somewhat Vulnerable, ■ Quartile 3 = Vulnerable, ■ Quartile 4 = Most Vulnerable

- 1 Percent of people over 5 years old who speak English less than very well
- 2 Percent of people with a disability
- 3 Percent of households with access to a car
- 4 Asthma emergency department visits per 100,000 people
- 5 Percent of people under 5 years old
- 6 Percent of people aged 65 and older

## HOW

The California Public Resources Code sections 4290 and 4291 establish requirements for defensible space around structures, vegetation management in high-risk areas, and fire-safe construction practices. The regulations require property owners to maintain their properties free of hazardous vegetation and combustible materials and mandate the use of certain fire-resistant materials in construction. CAL FIRE establishes Fire Hazard Severity Zones, designating the hazard of wildfire across geographic areas (see **Exhibit 5.9**).

Fire Safe Councils (FSCs) and community wildfire protection plans are two ways that communities can put additional efforts toward fire planning. The Lytle Creek FSC, a grant-funded nonprofit that provides services within San Bernardino County, is the nearest Fire Safe Council. They help to educate homeowners about community wildfire preparedness activities and work with local fire officials to design and implement projects that increase wildfire survivability. The Lytle Creek FSC, along with other FSCs, coordinate efforts and share resources through the Inland Empire Fire Safe Alliance, which aims to make fire prevention and protection consistent and continuous across local FSCs. Rialto does not have a community wildfire protection plan; the nearest community wildfire protection plan is the 2018 Lytle Creek Community Wildfire Protection Plan.<sup>20</sup>

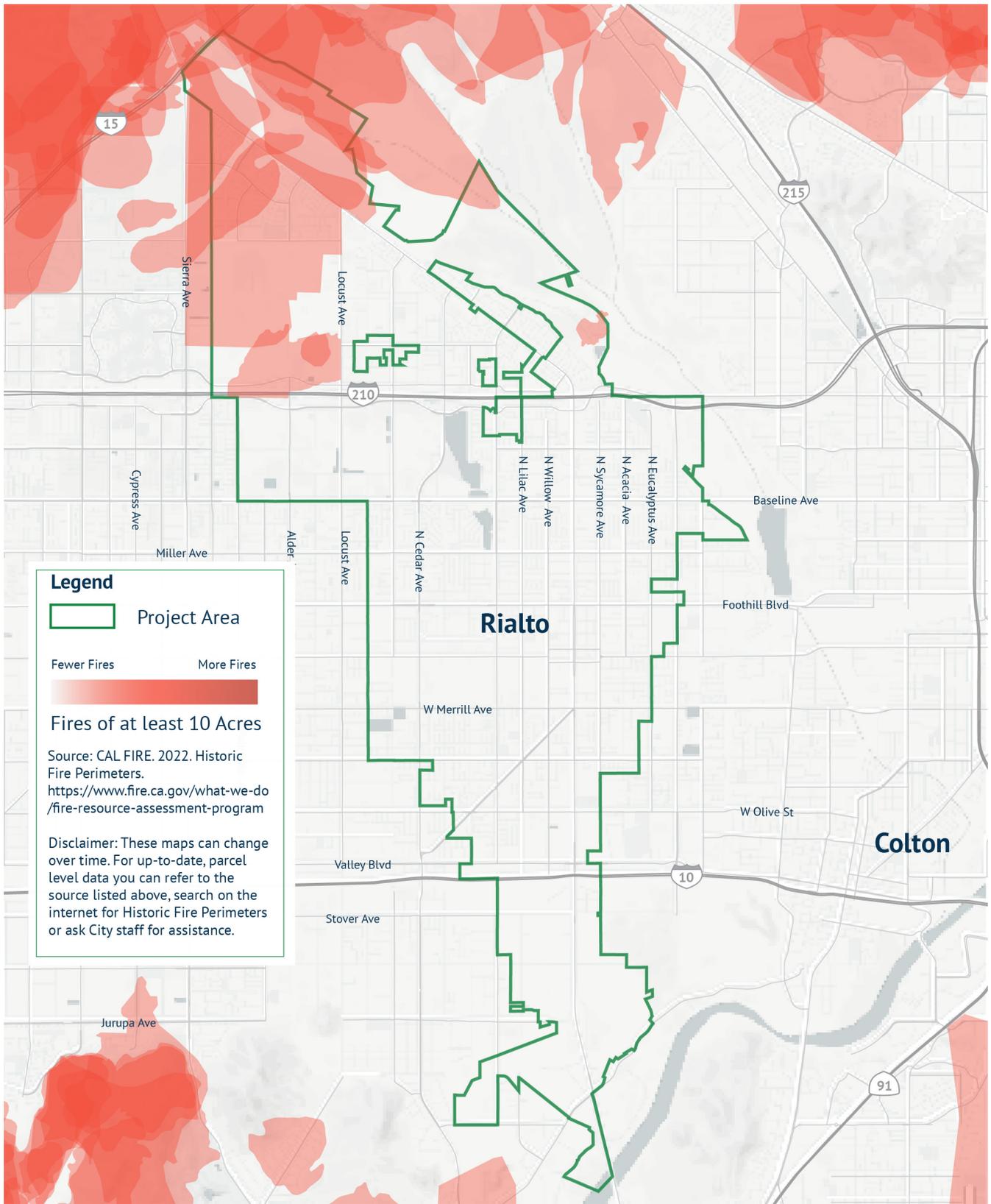
<sup>20</sup> San Bernardino County Fire Department. 2018. "Lytle Creek Community Wildfire Protection Plan." <https://img1.wsimg.com/blobby/go/cc929cae-ffab-43e5-8915-90a2e87fd5ee/downloads/Lytle%20Creek%20CWPP%202018%20draft.pdf?ver=1574972878132>.

Several City plans address wildfire. The Rialto General Plan addresses fire through site plan standards and development phasing that requires maintaining defensible space. It also has policies that promote fire education. The LHMP aims to mitigate fire risk through a weed abatement program and includes fire safety education through publications such as social media, notices, and handouts. The SBCTA Guidebook recommends culvert sizing for post-wildfire flows, using fire resistant materials for drainage facilities, maintaining defensible space around critical assets, and creating design and operations strategies to facilitate evacuation.

When wildfire threat is high, Southern California Edison issues Public Safety Power Shutoffs (PSPSs) to mitigate risks associated with power infrastructure contributing to or causing fires. This occurs especially during high wind events, which increase the risk of wildfire spread. Multiple City programs address the risk of planned power shutoffs for critical facilities. Each cooling center is equipped with a backup generator, which can provide community members with a place to access power and communication facilities when residents are without power.



**Exhibit 5.8. Fire Perimeters**



**Legend**

Project Area

Fewer Fires  More Fires

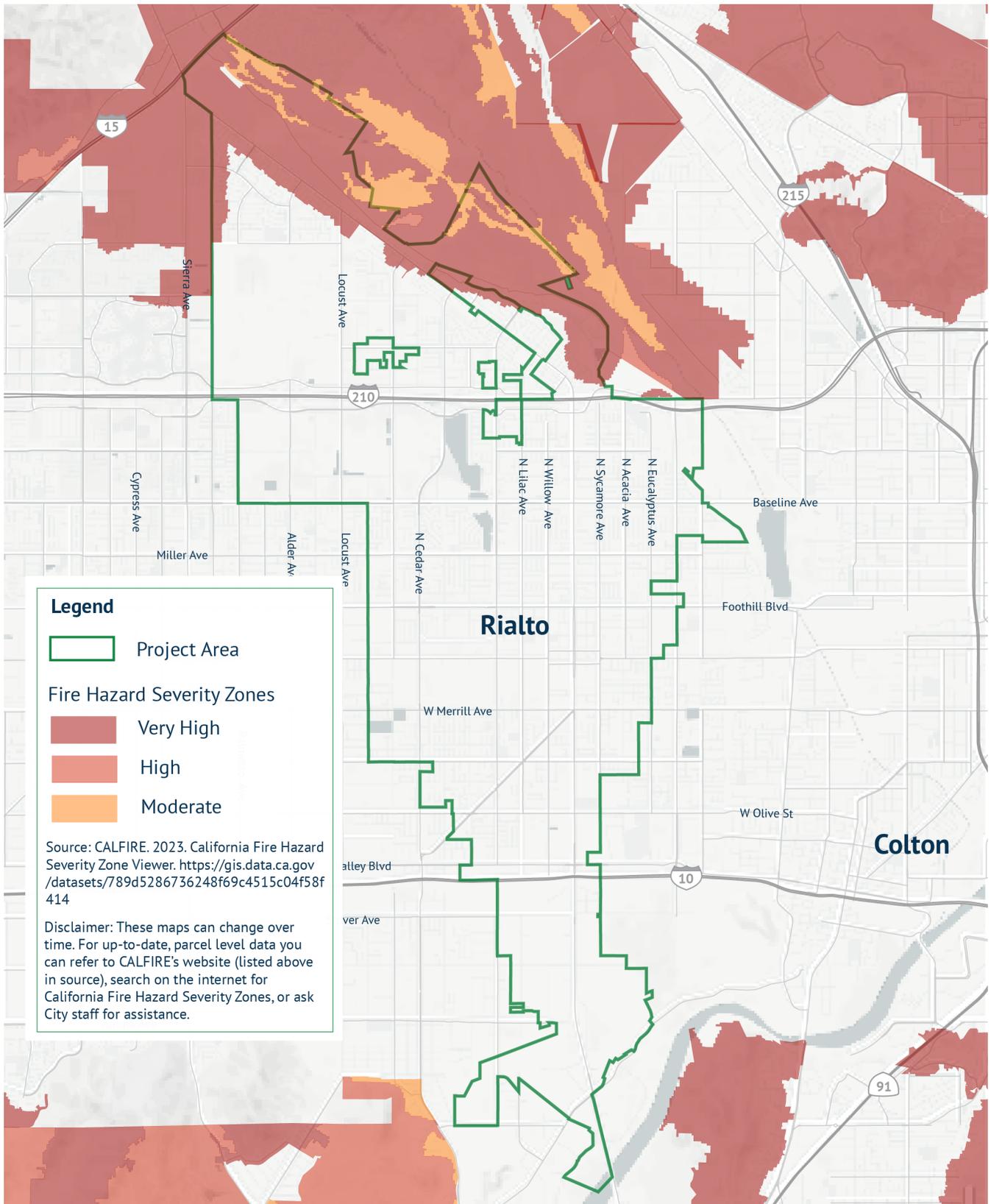
**Fires of at least 10 Acres**

Source: CAL FIRE. 2022. Historic Fire Perimeters.  
<https://www.fire.ca.gov/what-we-do/fire-resource-assessment-program>

Disclaimer: These maps can change over time. For up-to-date, parcel level data you can refer to the source listed above, search on the internet for Historic Fire Perimeters or ask City staff for assistance.

**Fire History**

### Exhibit 5.9. Fire Hazard Severity Zones



## Fire Hazard Severity Zones

Rialto General Plan Update

## Emergency Preparation and Response

Emergency preparation and response are important components in ensuring residents are ready for hazards and first responders can adequately serve residents in the event of a hazard. The City's Emergency Operations Plan (EOP) informs this element and acts as an extension to the State of California Emergency Plan and the San Bernardino County EOP.

### PREPAREDNESS

Per the Rialto Municipal Code, the Disaster Council, chaired by the mayor and vice-chaired by the city manager, directs emergency management and planning and is responsible for development of the EOP. All City departments and divisions contribute to planning and response to disasters. Through activation of the Emergency Operations Center, the City provides citywide priorities, communications, and logistical support to on-scene response prior to, during, and after disasters. The Emergency Operations Center follows all-hazard processes consistent with the California Standardized Emergency Management System (SEMS) and operates in coordination with the San Bernardino County Emergency Operations Center.

Additionally, the City provides education and prevention activities for residents with the goal of making Rialto more resilient to impacts of disasters, including City-sponsored events with public education and outreach components. Information about such events is disseminated through the City's Facebook page, the Police Department, and the Fire Department. The Rialto Network, a public education and government access station, produces media to inform Rialto residents about City and community events, environmental and education issues, local news briefs, police and fire information, and public service announcements.

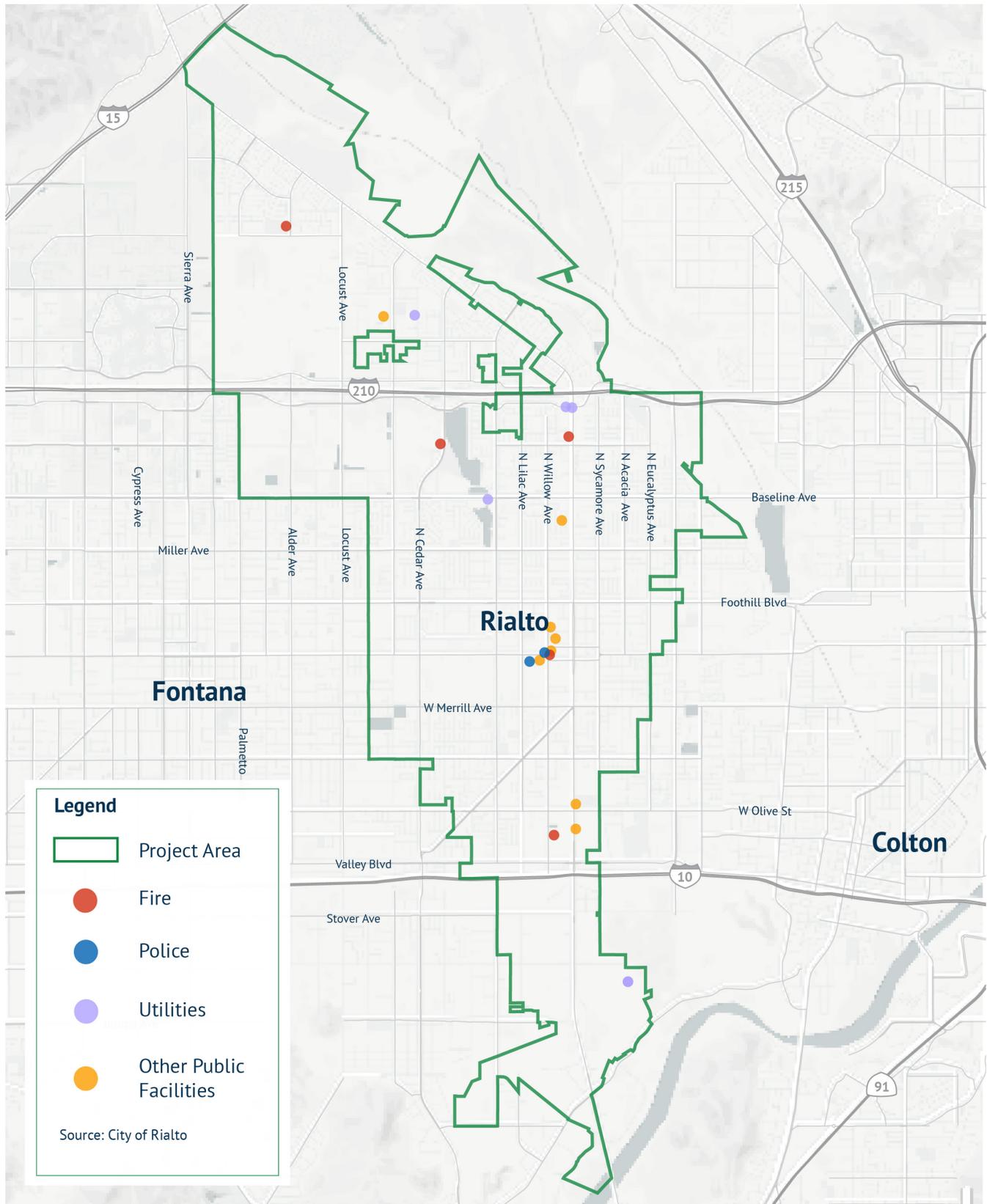
### RESPONSE

The possibility of a major disaster impacting Rialto is constant, given Rialto's exposure to a multitude of hazards such as wildfires, floods, windstorms, hazardous materials releases, and earthquakes. Procedures for mitigating such events are outlined in the City's Standard Emergency Management System (SEMS) Multi-Hazard Functional Plan. The Multi-Hazard Functional Plan incorporates and coordinates all the facilities and personnel of the City into an efficient organization capable of responding to any emergency. City and agency facilities related to emergency response and their relation to hazards are described in **Table 5-7** and displayed on **Exhibit 5.10**.

**Table 5-7. Critical and Non-Critical Facilities (or Essential Service Facilities)**

<b>FACILITY TYPE</b>	<b>NAME</b>	<b>ADDRESS</b>	<b>POTENTIAL HAZARDS</b>
Fire	Station 201	131 S Willow Avenue Rialto, CA 92376	
	Station 202	1700 N Riverside Avenue Rialto CA 92376	
	Station 203	1550 N Ayala Drive Rialto, CA 92376	Flooding
	Station 204	3288 N Alder Avानue Rialto, CA 92377	Fire
	Station 205	1485 S Willow Avenue Rialto, CA 92376	Dam Inundation, Hazardous Materials
Police	Rialto Police Headquarters	128 N Willow Avenue, Rialto, CA 92376	
	Rialto Police Annex	429 W Rialto Avenue Rialto, CA 92376	Dam Inundation
Utilities	Water Treatment Plant	501 E Santa Ana Rialto, CA 92376	Dam Inundation
	Wastewater Treatment Plant	501 E. Santa Ana Bloomington, CA 92316	Dam Inundation
	Rialto Public Works	325 W Rialto Avenue Rialto, CA 92376	Dam Inundation
	Highland Reservoir	100 E Easton Rialto, CA 92376	
	Easton Reservoir	140 W Easton Rialto, CA 92376	
	Cedar Reservoir	2610 N Cedar Rialto, CA 92377	
	Cactus Reservoir	725 W Baseline Rd Rialto, CA 92376	
Other	Rialto Civic Center	150 N Palm Rialto, CA 92376	
	Rialto Racquet and Fitness Center	1243 S Riverside Rialto, CA 92376	
	Carter Branch Library	2630 N Linden Avenue Rialto, CA 92376	
	Rialto Branch Library	251 W 1st Street Rialto, CA 92376	
	Rialto Senior Center	1411 S Riverside Rialto, CA 92376	
	Community Center	214 N Palm Rialto, CA 92376	
	City Garage	245 N Willow Rialto, CA 92376	

**Exhibit 5.10. Critical Facilities**



**Critical Facilities**

### *Fire Department*

The Rialto Fire Department is an all-risk fire agency providing fire suppression, emergency medical, technical rescue, hazardous material, and other related emergency services. The Fire Department also conducts public education programs and investigates and mitigates hazardous situations. The department actively practices hazards mitigation and fire prevention. The Fire Department deploys from five fire stations staffed 24 hours per day by career firefighters and one administrative office. The department staff includes one battalion chief, four engine companies, one truck company, four paramedic ambulances, and a paramedic squad each day. On-duty personnel provide staffing for the Hazardous Materials unit and the Urban Search and Rescue unit.

The department is continually looking at its ability to meet the needs of the community and to ensure the department has adequate and appropriate levels of personnel and equipment. The department aims to adhere to standards recommended by the Insurance Services Office (ISO) and the National Fire Protection Association. Those standards allow 1-minute alarm time, 1-minute turnout time (i.e., the time it takes personnel to put on their turnout gear), and first units to respond to a fire or medical emergency within 4 minutes; the remaining equipment must respond within 8 minutes.

### *Police Department*

The Rialto Police Department provides a full range of law enforcement and community safety programs, including field patrol, K-9, School Resource Officer, Drug Abuse Resistance Education (DARE), Street Crime Attack Team, Area Commander Program, investigations, traffic, narcotics, training/backgrounds, Strategic Weapons and Tactics, and crisis negotiations. Community programs include the Community Ambassador Program, which encourages community members who participate to become ambassadors to the Rialto community and develop positive relationships with law enforcement officers; the Every 15 Minutes program, which creates a realistic traffic collision scene followed by an educational presentation to discourage students from drinking and driving or texting and driving; the Ride to Live program that partners with the California Office of Traffic Safety to provide safety training to motorcycle riders; and many others. The Police Department encourages utilizing innovative technology for law enforcement programs, such as Fusus, a technology platform, which is used to access business surveillance cameras to respond to criminal activity and support investigations.

## **EVACUATION ROUTES**

Pre-planning for evacuation in response to a disaster is difficult, but understanding risks and transportation networks can be valuable for community members and expedite the process. The nature, size, and location of a disaster is fluid, so when it is needed, the decision to evacuate an area will be determined by the appropriate emergency response agencies. At that time, Rialto law enforcement agencies manage the evacuation routes and facilitate traffic movement. A public notice utilizing California's Emergency Alert System is broadcast over broadcasters, cable television systems, wireless cable systems, and satellite digital audio radio service (SDARS) providers to alert the community of disaster-related events.

Evacuation warning information includes the following:

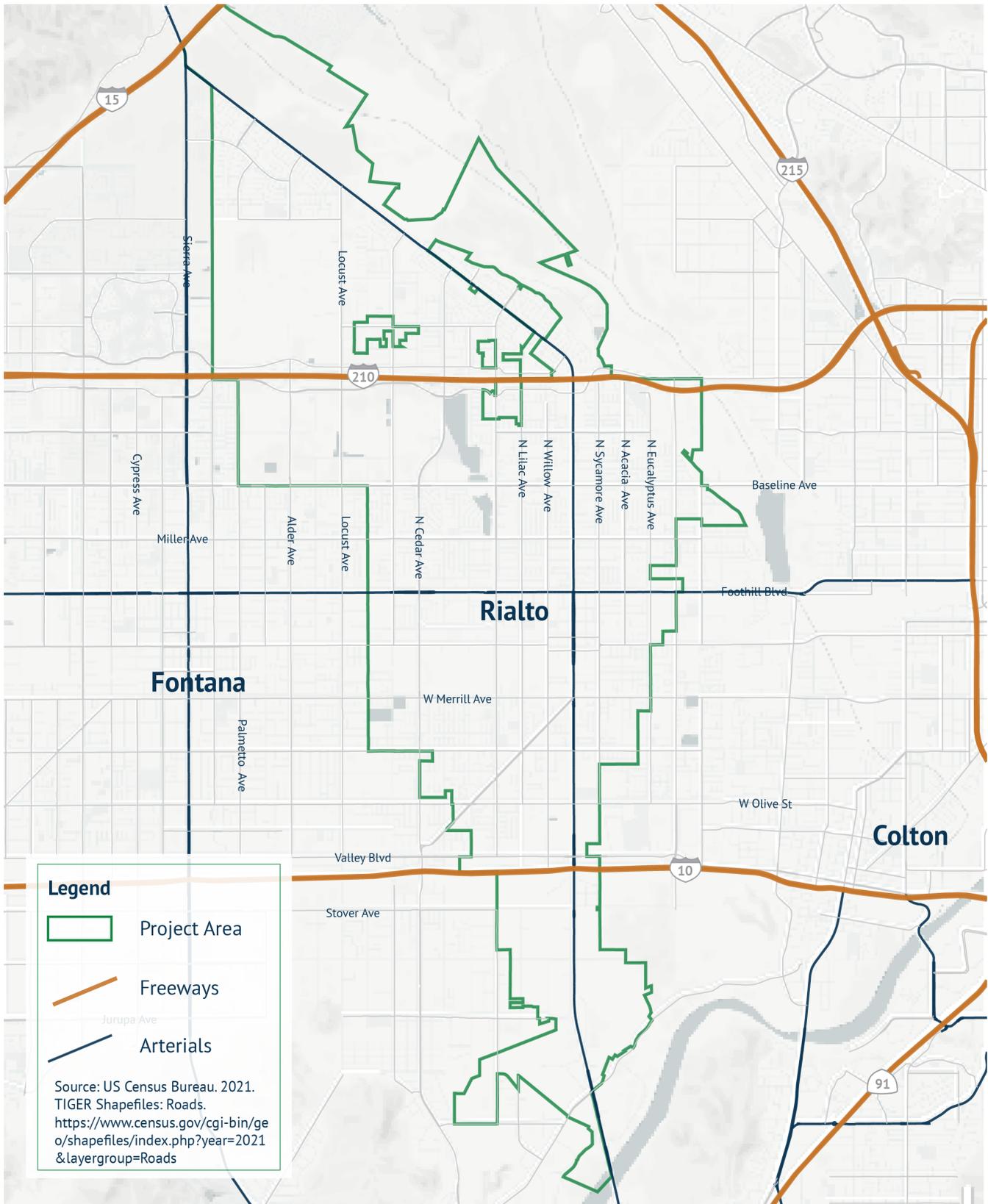
- Evacuation type (voluntary or mandatory)
- Routes available out of area
- Location of evacuation centers
- Duration of emergency (anticipated)
- Time remaining before the situation becomes critical

In the event of a disaster and subsequent evacuation order, affected persons are directed to the most appropriate emergency shelter. City staff works closely with the Red Cross and the Rialto Unified School District to coordinate the availability of shelters.

There are several primary corridors throughout Rialto that may be used for an evacuation, including N. Riverside Avenue, W. Baseline Road, W. Rialto Avenue, and U.S. Route 66, among others (see **Exhibit 5.11**, Evacuation Route Corridors).

Another important component of planning for emergencies is ensuring access to and from residences in hazard areas. Ensuring that there is more than one point of access to a home allows for adaptable response and evacuation in case of a roadway becoming impassible. Generally, this is not an issue for Rialto, which primarily uses a grid pattern of roadways outside of the occasional short cul-de-sacs. This roadway design, combined with fire hazard severity zones only being present in northern Rialto, makes for limited risk in relation to access. **Exhibit 5.12** notes residential parcels in fire hazard severity zones with only one point of access.

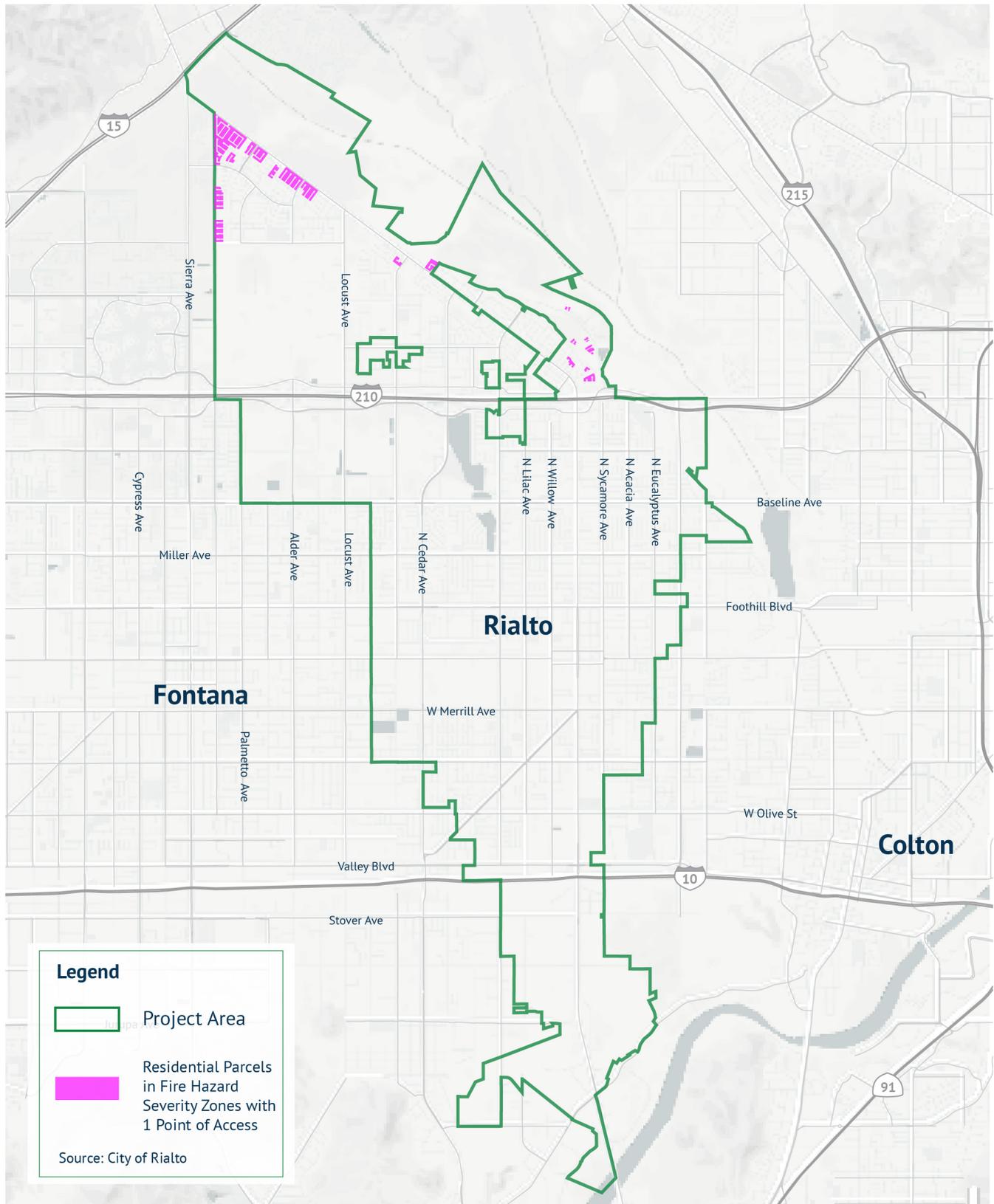
### Exhibit 5.11. Evacuation Route Corridors



## Major Roads for Evacuations

Rialto General Plan Update

**Exhibit 5.12. Residential Parcels in Fire Hazard Severity Zones with One Point of Access**



**Residential in Fire Hazard Severity Zones with 1 Point of Access** Rialto General Plan Update

## Gangs

Rialto historically has had recurring problems with gangs; gangs threaten the safety of neighborhoods and create an unfavorable image of the City that may discourage investment in the community. Gangs are differentiated from other youth groups by their frequent and intentional involvement in illegal activities and a more developed leadership structure. Many street gang activities in Rialto come from gangs located in the City, with several loosely knit Rialto gangs dating back several generations. Gangs that have originated in Los Angeles and other areas of Southern California have also infiltrated the community. The City recognizes that gangs present a significant safety concern.

As part of its operational plan, the Police Department has established the Multiple Enforcement Team (MET). The MET investigates gang, narcotics, and career criminal cases. The team also addresses specific problems and crime trends by using innovative investigative techniques and available resources until the problem are solved or controlled. The team is highly trained and motivated. In addition, Department personnel routinely attend gang training, participate in gang-related enforcement efforts in surrounding communities, and are members of various gang intelligence and training groups.

The City will continue to provide diverse after-school programs for the City's youth and families to discourage youth involvement with gangs. Such programs will engage youth in volunteer and recreational programs that strengthen family and healthy and safe social networks. Job placements and internship programs will help Rialto youth gain job skills and spark positive interests.

## Noise

Excessive noise can disrupt our lives. Noise can interrupt our conversations, thoughts, and leisure activities. Noise sensitivity varies depending on the time of day, its duration and pitch, and preferences of individuals. Despite this variability, most residents agree that too much noise or the wrong type of noise can be irritating and interfere with sleep, speech, recreation, and tasks that require concentration or coordination. Therefore, noise not only decreases environmental quality but can also adversely affect our physical and mental health.

In Rialto, street and freeway traffic represent the primary source of noise. The SR-210 freeway, which traverses the northern portion of the City, and I-10, which runs through the southern portion, present concerns where they run adjacent to residential neighborhoods. Other significant sources of noise include arterial roadways and intersections, as well as the Union Pacific Railroad lines running adjacent to I-10 and Metrolink, which runs directly through the City's downtown.

Because Rialto is largely built out and the street system well established, the City faces challenges in separating noise-sensitive land uses from primary noise sources. Thus, the Noise Element establishes policies to guard against creation of any new noise/land use conflicts and to minimize the impact of existing noise sources on the community.

## NOISE METRICS

Sound intensity is measured and expressed by decibels (dB), with an adjustment referred to as the A-weighted measure (dBA) to correct for the relative frequency response of the human ear. Decibels are measured on a logarithmic scale, representing points on a sharply rising curve. For example, a noise level of 10 decibels is 10 times more intense than one decibel, 20 decibels represents a noise 100 times more intense, and 30 decibels reflects a noise condition 1,000 times more intense. A sound as soft as human breathing is about 10 times greater than a zero decibel level.

The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10-decibel increase in sound level is perceived by the human ear as only doubling of the loudness of the sound. Ambient sounds in the urban environment generally range from 30 dBA (very quiet) to 100 dBA (very loud), as indicated in the Typical Sound Levels table.

Because people generally are more sensitive to noise intrusions during the evening and night hours, State law requires, for planning purposes, use of such metrics as the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (Ldn). These metrics add an artificial decibel increment to quiet time noise levels in a 24-hour noise descriptor to account for increased sensitivity during late hours. The CNEL descriptor requires that an artificial increment of 5 dBA be added to the actual noise level for the hours from 7:00 a.m. to 10:00 p.m., and 10 dBA for the 10:00 p.m. to 7:00 a.m. period. The Ldn descriptor uses the same methodology, except that no artificial increment is added to the hours between 7:00 a.m. and 10:00 p.m. Both descriptors yield roughly the same 24-hour level, with the CNEL being only slightly more restrictive (that is, higher).



**Table 5-8. Typical Sound Levels**

NOISE SOURCE AT A GIVEN DISTANCE	A-WEIGHTED SOUND LEVEL IN DECIBELS	EXAMPLE NOISE ENVIRONMENT	PERCEPTION
Shotgun (at shooter's ear)	140	Aircraft carrier flight deck	Painfully Loud
Civil defense siren (100 ft)	130		
Jet takeoff (200 ft)	120		Threshold of Pain
	110	Rock music concert	
Pile driver (50 ft)	100		Very Loud
Ambulance siren (100 ft)	90	Boiler room	
Pneumatic drill (50 ft)	80	Noisy restaurant	
Busy traffic; hair dryer	70		Moderately Loud
Normal conversation (5 ft)	60	Data processing center	
Light traffic (100 ft); rainfall	50	Private business office	
Bird calls (distant)	40	Average living room/ library	Quiet
Soft whisper (5 ft); rustling leaves	30	Quiet bedroom	Very Quiet
	20	Recording studio	
Normal breathing	10		Threshold of Hearing

**Source:** Beranek, L.L. 1998. Noise and Vibration Control. Institute of Noise Control Engineering.

## EFFECT OF NOISE ON PEOPLE

In general, noise may affect the average individual in the following ways:

### – General Hearing Loss or Damage

- Sound levels which exceed 85 dBA, when experienced for long durations during each working day, may result in severe temporary or even permanent hearing loss. State and Federal safety and health regulations currently protect workers at levels of exposure that exceed 90 dBA for each eight-hour workday.

### – Interference with Oral Communication

- Speech intelligibility is impaired when sound levels exceed 60 dBA. The amount of interference increases with sound level, and with distance between speaker and the listener.

### – Sleep Interference

- Sound levels that exceed 40 to 45 dBA are generally considered excessive for sleeping areas within a residence.

## **REGULATORY ENVIRONMENT**

The intent of this Noise section is to set goals to limit and reduce the effects of noise intrusion on sensitive land uses and to set acceptable noise levels for varying types of land uses. To this end, the City has the authority to set land use noise standards and place restrictions on private activities that generate excessive or intrusive noise. However, it should be recognized that the City, and that various agencies, such as the Federal Highway Administration, the U.S. Department of Housing and Urban Development, and the California Department of Health Services, may supersede City authority as discussed below.

### **CALIFORNIA ADMINISTRATIVE CODE SECTION 65302(F)**

California Government Code Section 65302(f) requires that all General Plans include a Noise Element to address noise concerns in the community. State law also requires that current and future noise level contours be developed for the following sources:

- Highway and freeways
- Primary arterials and major local streets
- Passenger and freight on-line railroad operations and ground rapid transit systems
- Commercial, general aviation, heliport, and military airport operations, aircraft flyovers, jet engine test stands and all other ground facilities and maintenance functions related to airport operation
- Local industrial plants, including, but not limited to, railroad classification yards
- Other stationary ground noise sources identified by local agencies as contributing to the community noise environment

### **CITY OF RIALTO MUNICIPAL CODE**

The City's Municipal Code provides a basis for controlling excessive and annoying noise. Some of the more pertinent chapters of the Municipal Code are:

- Chapter 9.50.030, Prohibited Acts
- Chapter 9.50.040, Excessive Noise and Vibration emanating from a Motor Vehicle
- Chapter 9.50.050, Controlled Hours of Operation
- Chapter 9.50.060, Exemptions
- Chapter 9.50.070, Disturbances from Construction Activity

### **FEDERAL HIGHWAY ADMINISTRATION**

The freeways and State routes that run through the City (I-10/SR-210/I-15) are subject to Federal funding and so are under the purview of the Federal Highway Administration (FHWA). The FHWA has developed noise standards that are typically used for Federally funded roadway projects or projects that require either Federal or Caltrans review.

## **U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT**

The Department of Housing and Urban Development (HUD) issues formal requirements related specifically to standards for exterior noise levels along with policies for approving HUD-supported or assisted housing projects in high noise areas. In general, these requirements established three zones:

- 65 dBA Ldn or less: An acceptable zone where all projects could be approved
- Exceeding 65 dBA Ldn but not exceeding 75 dBA Ldn: A normally unacceptable zone where mitigation measures would be required and each project would have to be individually evaluated for approval or denial. These measures must provide 5 dBA of attenuation above the attenuation provided by standard construction required in a 65 to 70 dBA Ldn area and 10 dBA of attenuation in a 70 to 75 dBA Ldn area.
- Exceeding 75 dBA Ldn. An unacceptable zone, in which projects would not, as a rule, be approved

## **FEDERAL RAILROAD ADMINISTRATION**

The EPA is charged with the regulation of railroad noise under the Noise Control Act. The Federal Railroad Administration (FRA) is responsible for enforcement of EPA regulations related to railroad noise developed as part of the Noise Control Act. FRA's Office of Safety is responsible for enforcing the Railroad Noise Emissions Compliance Regulation that set maximum sound levels from railroad equipment and for regulating locomotive horns. The Union Pacific rail corridor that follows I-10 in the southern portion of Rialto falls under the regulation described above.

## **CALIFORNIA DEPARTMENT OF HEALTH SERVICES**

The California Department of Health Services (DHS), Office of Noise Control studied the correlation of noise levels and their effects on various land uses. As a result, the DHS established four categories for judging the severity of noise intrusion on specified land uses. DHS standards suggest “normally acceptable,” “conditionally acceptable,” “normally unacceptable,” and “clearly unacceptable” exterior noise levels for various land uses. A “conditionally acceptable” designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a “normally acceptable” designation indicates that standard construction can occur with no special noise reduction requirements.

## **NOISE/LAND USE COMPATIBILITY**

Most cities and counties in California have adopted noise/land use compatibility criteria that reflect DHS standards and based on the general assumption that higher noise levels are acceptable in business districts and industrial areas. However, the introduction of mixed-use development principles into traditionally suburban environments has changed thinking with regard to acceptable noise levels. People who choose to live in vibrant mixed-use districts know that the excitement and activity levels bring with them a noise environment distinctly different than that of traditional residential-only neighborhoods. For example, music played in outdoor dining areas or bars can extend into late-night hours. Garbage

collection early in the morning and the noise from heating, ventilation, and air conditioning equipment also occur with greater frequency and intensity in an urban setting.

In addition, at locations along major roadways, greater traffic volumes contribute to ambient noise conditions. Projected noise levels throughout most of the Downtown, including the area designated for new mixed-use development, are expected to exceed traditionally accepted noise/land use compatibility guidelines for residential uses. **Exhibit 5.13** shows Rialto’s noise guidelines for land use planning that incorporate these principles.

This General Plan encourages mixed-use development to achieve several objectives: to work toward more sustainable development approaches, to increase access to affordable housing for more people, to create a lively Downtown, and to allow people to live closer to their jobs. To meet these objectives, Rialto has adopted the flexible noise guidelines for mixed-use districts set forth in **Exhibit 5.13**.



**Exhibit 5.13. Rialto Noise Guidelines for Land Use Planning**

Land Use Category	Community Noise Equivalent Level (CNEL), dB						
	55	60	65	70	75	80	85
R2 – Residential 2, R6 – Residential 6	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
R12 – Residential 12	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
R21 – Residential 21, R45 – Residential 45	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
DMU – Downtown Mixed-Use	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
CC – Community Commercial	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
GC – General Commercial	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
BP – Business Park, O – Office	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
LI – Light Industrial	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
GI – General Industrial	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable
P – Public Facility, P – School Facility	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
OSRC – Open Space - Recreation	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Clearly Unacceptable
OSRS – Open Space - Resources	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Clearly Unacceptable

 **Normally Acceptable**  
Specified land use is satisfactory, assuming buildings are of conventional construction.

 **Conditionally Acceptable**  
New development should be undertaken only after detailed analysis of noise reduction requirements are made.

 **Normally Unacceptable**  
New development should be generally discouraged, if not, a detailed analysis of noise reduction requirements must be made.

 **Clearly Unacceptable**  
New development should generally not be undertaken.

Coupled with these guidelines are regulations for noise control contained in Chapter 9 (Noise Regulations) of the Municipal Code and State standards for interior noise control for residential uses. Specifically, Title 24 of the California Health and Safety Code stipulates a maximum of 45 dBA CNEL for interior residential noise levels. In loud environments, insulation, double- or triple-pane windows, and special ventilation systems are among the tools used to achieve acceptable interior noise levels.

### **EXISTING AND FUTURE NOISE ENVIRONMENTS**

The most significant noise producing activity within the City of Rialto is transportation. Transportation noise consists of several elements: 1) arterial traffic; 2) rail movements on two lines; and 3) activities at a railroad classification yard. Activities at commercial/industrial properties also contribute to the noise environment in Rialto.

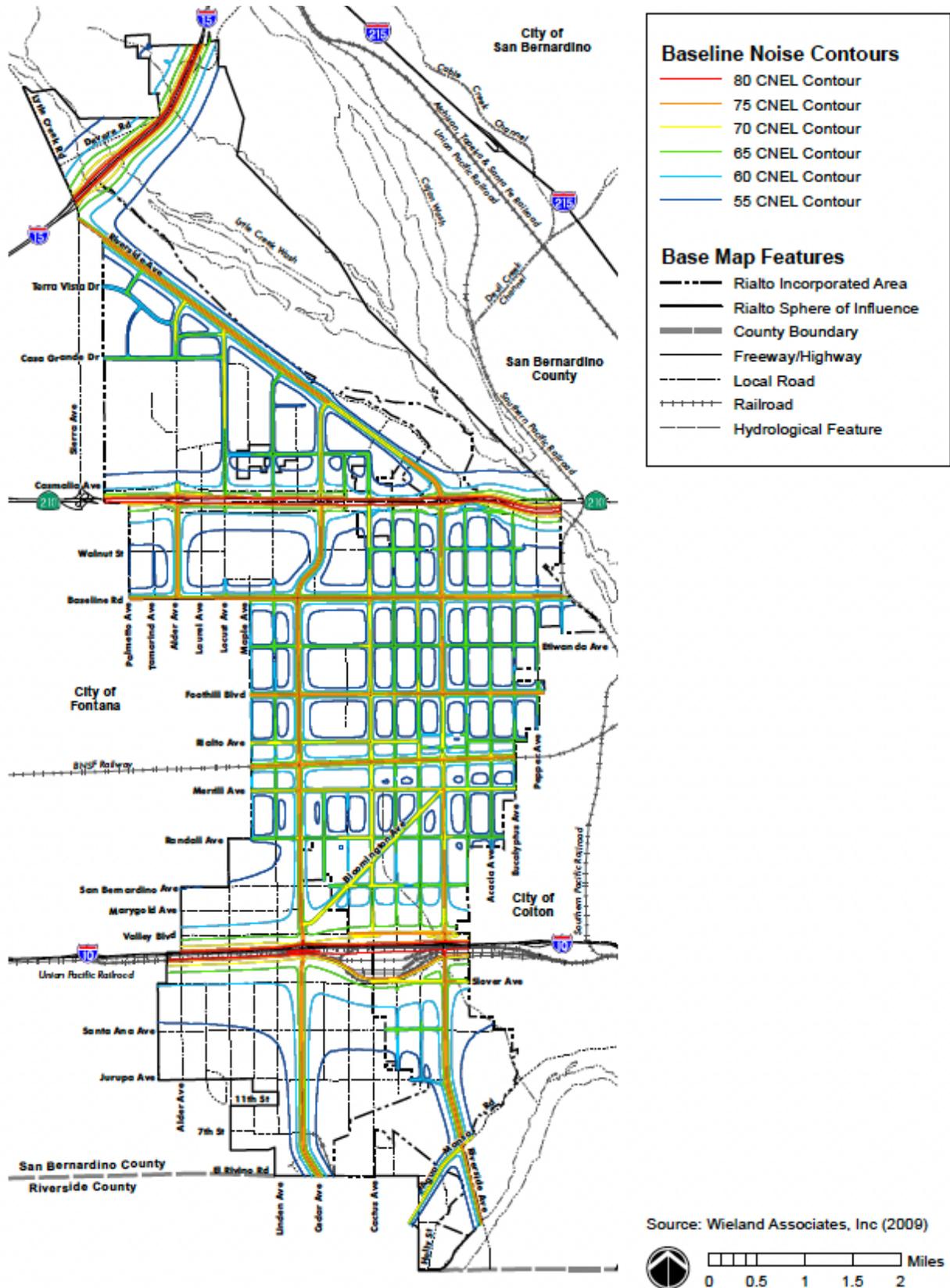
Using measurement sites located along Rialto's streets, highways, and railroads, the City has developed noise contours for year 2008 baseline conditions. Future condition noise contours have been generated based on projected traffic levels.

The noise contours represent the average measurements of noise exposure and are used to provide a general visualization of sound levels in the City. As an example, a person in an area located within a 60 dBA noise contour would hear a constant noise level roughly equivalent to 60 dBA, although unique events would generate noise levels both below and above 60 dBA. The noise contours do not reflect possible noise attenuation that could occur from structural or geographical barriers, and acoustical analysis should be conducted for each individual site in the case of a specific project.

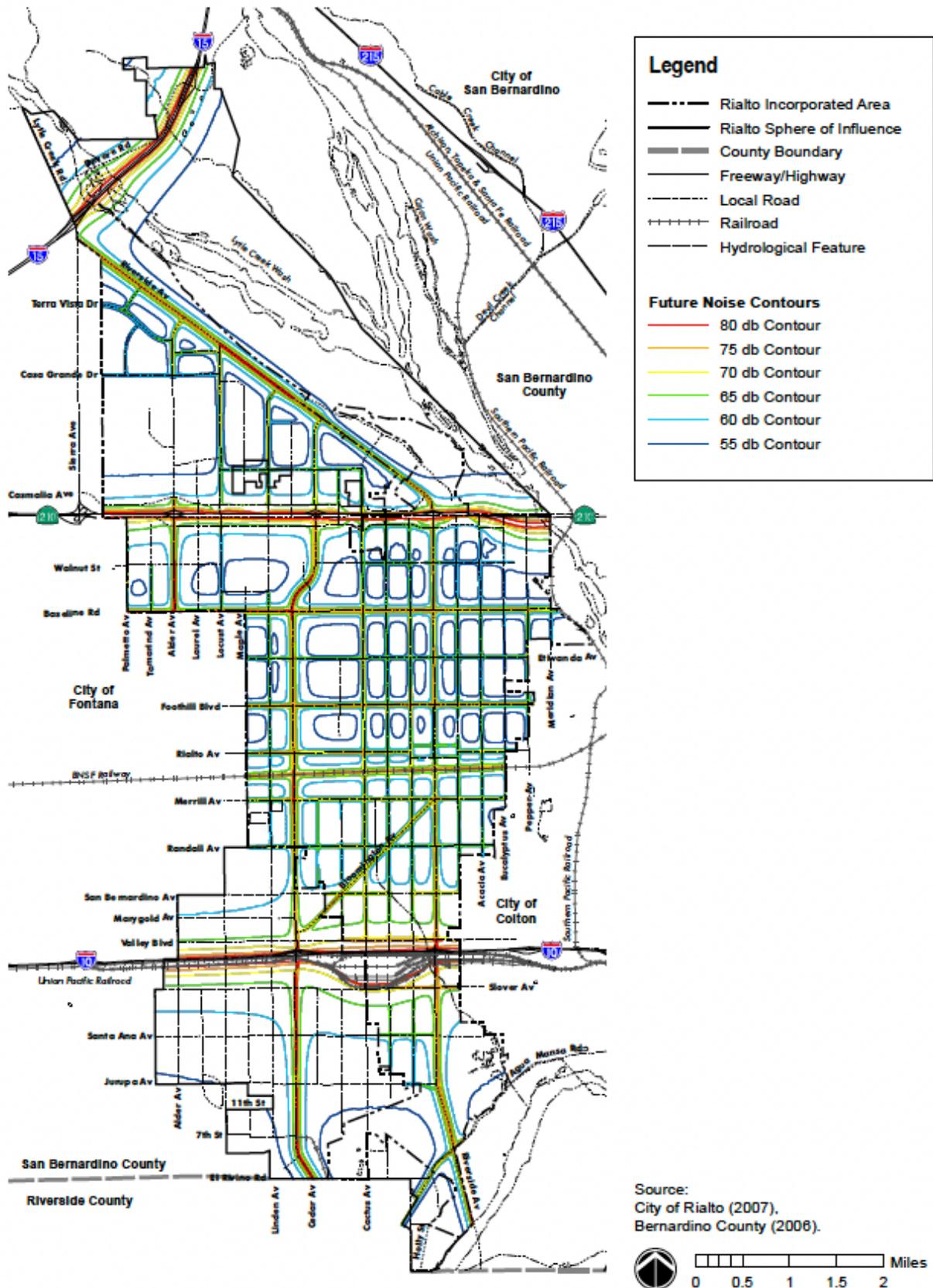
Noise contours for year 2008 are shown in **Exhibit 5.14**, and projected contours for the year 2040 are shown in **Exhibit 5.15**.

Noise level increases are projected to occur along the Metrolink Rail Line corridor; I-10, I-15, and SR-210 freeways; Riverside Avenue; Foothill Boulevard; western Baseline Road; Rialto Avenue; and Cedar Avenue.

**Exhibit 5.14 – Baseline Noise Contours (2008)**



**Exhibit 5.15 – Future Noise Contours (2040)**



## Wind Hazards

The City of Rialto has a history of extensive windstorms, often related to Santa Ana winds that push through the Cajon Pass. The Santa Ana winds are strong, extremely dry offshore winds that characteristically sweep through the area in late fall and early winter. High winds can also result from thunderstorm inflow and outflow or high- and low-pressure systems moving through the region. High winds have speeds reaching at least 50 miles per hour, and gusts can exceed 100 miles per hour. Wind events constitute one of the most frequent major hazards in the City. Not only do windstorms happen frequently, they can be costly in terms of property damage and can cause injury to people.

The winds sometimes reach gale-force strength. As a result, there are usually high wind advisories, particularly along the I-15 and SR-210 freeways with signs posted throughout the area. It is not uncommon to see overturned trucks during windy events.

The winds affecting Rialto can damage structures, uproot small trees, and create dust storms in the City where the soil type is susceptible to wind erosion. Winds can also push wildland fires in the Lytle Creek area. Additionally, as the northern part of the City has shifted to developed lands, the severity and frequency of high winds has been reduced moderately.





# Goals and Policies

## **GOALS AND POLICIES**

### **Goal 5–1: Continue to build the City’s fire protection and prevention programs and requirements to minimize fire hazards.**

**Policy 5–1.1: Landscape plans in the Very High Fire Hazard Severity Zone shall be reviewed and accepted by the Fire Department prior to installation. Within these plans, encourage consideration of fire resistive and drought tolerant plant and landscape characteristics.**

**Policy 5–1.2: Continue to enforce strict vegetation management requirements as stated in City Ordinance, the California Fire Code Chapter 49, and the Public Resources Code 4290 and 4291. Develop a method to track problem areas including repeat offenders or areas with special risks to the surrounding community, such as critical assets or permitted hazardous material users. Ensure ongoing vegetation management for City-maintained open space areas, future fuel breaks, or other potential city-led fire hazard reduction projects.**

**Policy 5–1.3: Require that all site plans, subdivision plans, and building plans be reviewed by the Fire Department to ensure compliance with appropriate fire regulations, such as California Fire Safe Regulations.**

**Policy 5–1.4: Promote and incentivize development to occur outside of Very High Fire Hazard Severity Zones. Development in the City’s Very High Fire Hazard Severity Zones shall meet the most recent version of the California Fire Code and California Building Code. A Fire Protection Plan that describes ways to minimize and mitigate potential for loss from wildfire exposure, including project specific fuel modification methods and maintenance that achieve compliance with City of Rialto and state requirements for defensible space, shall be required. If the development involves roadway development, enforce the most recent version of the California Fire Code as adopted by the State of California and the City of Rialto as it relates to roadway design, street addressing, and signage. If the development has only one point of access consider the potential for additional access points.**

**Policy 5–1.5: Ensure that defensible space is maintained around residential located in Very High Fire Hazard Severity Zones, pursuant to the California Fire Code. Provide homeowners with assistance or resources as possible. Resources to consider include development of a list of local home maintenance companies, the development of a volunteer vegetation maintenance program, or the pursuit of grants for low-income homeowners.**

**Policy 5–1.6: Require new developments in Very High Fire Hazard Severity Zones have adequate fire flow as defined by the most recent California Fire Code.**

**Policy 5–1.7: Develop a Community Wildfire Protection Plan (CWPP). Prior to development of the CWPP, contact neighboring jurisdictions and regional agencies to pursue multi-jurisdictional partnerships that improve the effectiveness of programs and share costs.**

## **Goal 5–2: Create a more flood-safe community through development standards and infrastructure improvements.**

**Policy 5–2.1: Conduct a mud and debris flow study to determine best sizing and mitigation for culverts immediately downstream from Fire Hazard Severity Zones and in the 100- and 500-year flood plain to accommodate wildfire flows. Prioritize resizing and mitigation for any known culverts that require increased debris cleaning during the rainy season.**

**Policy 5–2.2: Develop a green streets program to support a sustainable approach to stormwater, drainage, groundwater recharge, and landscaping and incorporate green streets standards and guidelines in all streetscape improvements.**

**Policy 5–2.3: For properties located within designated 100-year flood zones, require the submittal of information prepared by qualified specialists which certifies compliance with development standards established for 100-year flood zones.**

**Policy 5–2.4: Require the implementation of adequate erosion control measures for development projects to minimize sedimentation damage to drainage facilities.**

**Policy 5–2.5: Continue to consult with the San Bernardino County Flood Control District regarding improvements and maintenance of regional flood control facilities located within the City.**

**Policy 5–2.6: Design new developments with water retention devices and permeable surfaces to minimize flooding of the surface drainage system by peak flows. Consult with water agencies and the San Bernardino County Flood Control District to consider the potential for larger-scale capture via diversion to large-scale spreading grounds or other options on a site-by-site basis.**

**Policy 5–2.7:** Require that any structure proposed within an officially designated 100-year floodplain, or other floodplain as determined through geotechnical investigation, be designed in a manner that does not negatively impede or redirect floodwaters or raise anticipated flood heights.

**Policy 5–2.8:** Consider development of a public database for documenting surface flooding and its causes.

### **Goal 5–3: Adopt development standards and maintain the urban forest to reduce the urban heat island effect.**

**Policy 5–3.1:** Explore the feasibility of incentivizing cool roofs for existing residential and existing/new commercial, industrial, institutional, and similar structures in the City. Develop user-friendly standards that clearly explain the process and requirements for incorporating cool roof systems in the City and train all relevant public counter staff in processes and requirements. Consider developing and implementing a white roof project, modeled after New York City’s in the communities most highly burdened by heat island impacts.

**Policy 5–3.2:** Develop an Urban Forest Management Plan that considers hazards, especially wildfire, extreme heat, and water resources. During plan development and updates, update the public tree inventory.

**Policy 5–3.3:** Develop a street tree planting palette. Upon development of the street tree planting palette, prioritize tree planting from the approved street tree list based on the existing tree canopy and the population’s vulnerability to extreme heat. Where possible, integrate shade trees with bike and pedestrian infrastructure.

**Policy 5–3.4:** Update the minimum landscape requirements for large commercial and residential developments to ensure that landscape areas and plantings provide for adequate shade over paved areas.

**Policy 5–3.5: Promote the development of a network of green spaces throughout the city, prioritizing areas with low park access.**

**Policy 5–3.6: Develop a program and funding mechanisms to increase and maintain the urban tree canopy, prioritizing neighborhoods with low tree canopy coverage and/or high urban heat island effect.**

## **Goal 5–4: Minimize generation of hazardous waste and ensure safe and responsible management by hazardous waste facilities and households alike.**

**Policy 5–4.1: Continue to identify hazardous material users and generators within the City through the use of state databases for permitted facilities or field surveys, inspection programs, and licensing requirements.**

**Policy 5–4.2: Coordinate City enforcement efforts with San Bernardino County, the California Department of Health Services, the Regional Water Quality Control Boards, and the Air Quality Management District, for the management and disposal of hazardous wastes.**

**Policy 5–4.3: Identify and establish specific travel routes for the transport of hazardous materials and wastes, with key considerations being capacity to safely accommodate additional truck traffic, avoidance of residential areas, and use of interstate or State divided highways as preferred routes. As known problem areas arise, consider the use of temporary signage and additional monitoring in those issue areas.**

**Policy 5–4.4: Require all hazardous waste generators and hazardous materials handlers to report to City officials, including the Fire Department any equipment malfunction or upset which may cause hazardous waste to be emitted, released, or discharged.**

**Policy 5–4.5: Continue to prohibit businesses from storing hazardous materials for commercial use or commercially generated hazardous wastes in residential areas.**

**Goal 5–5: Minimize impacts to public health, safety, and welfare as a result of seismic and geologic hazards.**

**Policy 5–5.1: Require geotechnical investigations by certified engineering geologist or other qualified professionals for all grading and construction projects subject to geologic hazards, including fault rupture, severe ground shaking, liquefaction, landslides, and collapsible or expansive soils. Particular attention should be paid to areas within Alquist-Priolo Earthquake Fault Zones.**

**Policy 5–5.2: Require all construction to be in conformance with the California Building Code (CBC), and to be consistent with the Municipal Code as it provides for earthquake resistant design, excavation, and grading.**

**Policy 5–5.3: Require seismic retrofits for major renovations in accordance with Building Code provisions. Additionally, when supporting revitalization or rehabilitation of substandard housing, require seismic retrofits as needed, such as for unreinforced masonry buildings.**

## **Goal 5–6: Assess critical infrastructure and maintenance standards and make improvements to help the community withstand current and forecasted hazard events.**

**Policy 5–6.1: Design new critical facilities, also known as essential service facilities, to minimize potential for hazard damage, and locate these facilities outside of hazard zones, including but not limited to Very High Fire Hazard Severity Zones, FEMA flood zones, and Alquist-Priolo Fault Zones. Such facilities include those that provide emergency response such as fire stations, police stations, civil defense headquarters, utility lifelines, and ambulance services. Such facilities may also include those that do not provide emergency response but attract large numbers of people, such as schools, theaters, and other public assembly facilities with capacities greater than 100 people.**

**Policy 5–6.2: Continue to maintain flood control channels and storm drains, in accordance with habitat preservation policies, through periodic dredging, repair, desilting, and clearing to prevent any loss in their effective use.**

**Policy 5–6.3: Expand hours of operation of cooling centers when the temperature exceeds 100°F and during hazardous air days.**

**Policy 5–6.4: Supply cooling centers with refrigerators, backup water supplies, and social services information in multiple languages. Establish locations to provide disaster planning assistance and supplies, which can develop backup power sources in the event of a power outage.**

**Policy 5–6.5:** Coordinate with the San Bernardino County Office of Homeless Services and specific agencies and organizations that provide homeless services in Rialto and nearby to provide shelter during hazardous conditions and severe weather events. These emergency shelters should provide information about hazardous events and basic supplies such as insect repellent, N-95 masks, and hygiene supplies that can increase the adaptive capacity of individuals experiencing homelessness.

**Policy 5–6.6:** Continue to study and monitor the conditions of existing evacuation routes to incorporate a range of emergency scenarios including differences in hazard types, locations, and timing. Consider collaboration with neighboring jurisdictions for hazard scenarios that may cause regional evacuation.

**Policy 5–6.7:** When possible and deemed necessary, or during regular road maintenance, upgrade existing roads to meet California Fire Safe Regulations minimum road widths, surface, grade, radius, and turnarounds to ensure emergency vehicle access is possible. To ensure continued emergency vehicle access, perform vegetation and road maintenance on city roads and enforcement on private roads.

## **Goal 5–7: Provide culturally relevant preparedness resources, hazard education, and emergency notifications.**

**Policy 5–7.1:** Expand Nixle notifications and any other future emergency notification services to include Spanish.

**Policy 5–7.2:** Convene and regularly train neighborhood-based emergency response teams (e.g., CERT), incorporating climate change response and recovery. Ensure CERT recruiting includes a diverse set of community members and leaders.

**Policy 5–7.3: Work with local schools to create age-appropriate preparedness classes. Prioritize schools in disadvantaged communities.**

**Policy 5–7.4: Work with local non-profits, such as the Community Action Partnership of San Bernardino County, to pursue funding and create disaster kits for families in disadvantaged communities. This should include disaster supplies and guidance on how to collect and store important documents.**

**Policy 5–7.5: As possible, update the Local Hazard Mitigation Plan every five years in line with federal funding requirements.**

**Policy 5–7.6: Distribute and/or publicize appropriate emergency preparedness information to increase public awareness. Consider development of translated plans, executive summaries, or policies and programs when feasible.**

**Policy 5–7.7: Develop new and expand existing public fire safety education programs, including teaching fire and life safety information at the Rialto Senior Center, civic organizations, and businesses. For community-based classes, include considerations to engage family members of all ages. When developing these educational resources, include information about defensible space, evacuation, and home hardening, as well as other aspects of public fire safety.**

**Policy 5–7.8: Conduct regularly scheduled household hazardous waste roundup and disposal events.**

**Policy 5–7.9: Include educational resources for hazardous waste generators on the City website to promote safety best practices and regulation for businesses. Materials shall include information on proper labeling, placarding, and manifesting requirements. When the resources are developed and during permit approvals thereafter, make hazardous waste generators aware of these resources.**

**Policy 5–7.10:** As possible and applicable, have police and fire personnel at large public City events who can act as safety advocates, distribute educational resources, and answer safety-related questions.

## **Goal 5–8: Ensure that first responders and the Emergency Operations Center (EOC) have adequate capacity to respond to hazard events.**

**Policy 5–8.1:** Periodically review technology used to support the Emergency Operations Center to ensure systems are updated and effective, including City GIS.

**Policy 5–8.2:** Update Emergency Operations Center equipment and supplies as necessary to ensure effectiveness.

**Policy 5–8.3:** Provide training to all City employees on their roles and responsibilities in times of disasters and local emergencies. Training should include comprehensive and realistic disaster exercises and cross-training for multiple potential roles should be considered.

**Policy 5–8.4:** Provide for fire personnel, equipment, and fire stations to have adequate and appropriate resources to meet the needs and serve all areas of Rialto.

**Policy 5–8.5:** Develop the specifications and designs for an emergency response vehicle-operated traffic control system.

**Policy 5–8.6:** Add service level capability and infrastructure to meet increasing demand of new development.

**Policy 5–8.7:** Require that development be phased in relation to the City’s ability to provide an adequate level of fire protection, pursuant to the City standard of cover and fire department strategic plan.

**Policy 5–8.8:** Continue to participate in Statewide Master Mutual Aid Agreements and local automatic aid agreements related to emergency response.

## **Goal 5–9: Include provisions for vulnerable populations in emergency response procedures and recovery efforts.**

**Policy 5–9.1:** Explore the possibility and develop partnerships for providing an emergency evacuation shuttle service.

**Policy 5–9.2:** Coordinate a Know Your Neighbor Program where community leaders and neighbors provide resources and check in on vulnerable populations during hazard events where people shelter at home.

**Policy 5–9.3:** Host town hall meetings quarterly with community leaders that represent special needs populations, including seniors and non-English speakers, to maintain continuous two-way communication. Use surveys and other needs assessments to refine notification and response policies as needed.

**Policy 5–9.4:** When needed as a result of changing City conditions, update the Continuity of Operations Plan and Disaster Recovery Plan.

**Policy 5–9.5:** Develop a repository of resources or case studies on relevant hazard recovery programs that could allow for nimble emergency ordinances, facilitate speedy recovery, and increase resilience for vulnerable populations.

**Policy 5–9.6:** Following a major fire, consider community feedback and consult resources and case studies to reevaluate redevelopment. Plan to facilitate post-fire redevelopment in the Very High Fire Hazard Severity Zone that complies with the most current version of the California Building Code and California Fire Code.

## **Goal 5–10: Provide effective, timely and comprehensive policing services that meet the safety needs of Rialto.**

**Policy 5–10.1: Provide timely responses to emergency and nonemergency call for service 24 hours a day, pursuant to City standards.**

**Policy 5–10.2: Establish the satellite Police Department in the northwest neighborhood.**

**Policy 5–10.3: Continue to encourage design concepts that inhibit and discourage criminal behavior, such as Crime Prevention Through Environmental Design (CPTED) techniques.**

**Policy 5–10.4: Initiate proactive crime suppression and prevention strategies throughout the community.**

## **Goal 5–11: Reduce criminal gang activity and discourage gang involvement in the City of Rialto.**

**Policy 5–11.1: Identify specific high crime areas in the City and when feasible, create plans/strategies to improve these areas.**

**Policy 5–11.2: Provide immediate consequences for minor criminal behavior.**

**Policy 5–11.3: Continue to work with law enforcement agencies, San Bernardino County Probation, State Parole, and the District Attorney’s Office in their endeavors to arrest and prosecute violent gang members.**

**Policy 5–11.4: Work with State parole officials to identify gang members recently released from prison and develop orientation programs that inform them of services available in the community to help them get back on their feet.**

**Policy 5–11.5: Continue to work with the San Bernardino Movement Against Street Hoodlums (SMASH) to identify and clean up street gangs.**

**Policy 5–11.6: Enforce gang injunctions where needed to address neighborhood gang problems before they reach a level of felony crime activity.**

**Policy 5–11.7: Support Neighborhood Watch programs.**

**Policy 5–11.8: Encourage street and graffiti cleanup.**

**Policy 5–11.9: Continue to provide community programs that develop positive relationships between the Rialto Police Department and community members, such as the Community District Program and Crime Free Multi-Housing Program, which provide a safe and secure environment for the community to discuss gang-related issues and effective solutions to help reduce crime and provide a safer living environment.**

**Policy 5–11.10: Provide youth and family programs such as after-school recreational programs, volunteer programs, and job placements or internship programs that will help spark positive interests and discourage youth from participating in gang-related activities.**

## **Goal 5–12: Minimize the impact of point source and ambient noise levels throughout the community.**

**Policy 5–12.1:** Revise the City’s noise ordinance to address ongoing noise issues by using quantitative noise limits where appropriate and establishing comprehensive noise control measures.

**Policy 5–12.2:** Consider noise impacts as part of the development review process, particularly the location of parking, ingress/egress/loading, and refuse collection areas relative to surrounding residential development and other noise-sensitive land uses.

**Policy 5–12.3:** Ensure that acceptable noise levels are maintained near schools, hospitals, and other noise sensitive areas in accordance with the Municipal Code and noise standards contained in Exhibit 5-5.

**Policy 5–12.4:** Limit the hours of operation at all noise generation sources that are adjacent to noise-sensitive areas.

**Policy 5–12.5:** Require all exterior noise sources (construction operations, air compressors, pumps, fans and leaf blowers) to use available noise suppression devices and techniques to reduce exterior noise to acceptable levels that are compatible with adjacent land uses.

## **Goal 5–13: Minimize the impacts of transportation-related noise.**

**Policy 5–13.1:** Work with responsible Federal and State agencies to minimize the impact of transportation-related noise, including noise associated with freeways, major arterials, and Metrolink and other rail lines.

**Policy 5–13.2:** Require development which is, or will be, affected by railroad noise to include appropriate measures to minimize adverse noise effects on residents and business persons.

**Policy 5–13.3: Require development of truck-intensive uses to minimize noise impacts on adjacent uses through appropriate site design.**

**Policy 5–13.4: Develop a program for monitoring noise levels and investigating complaints.**

**Policy 5–13.5: Provide education to the community at large about the importance of maintaining a healthy noise environment and identify ways residents can assist in noise abatement efforts.**

## **Goal 5–14: Minimize the risks associated with wind hazards.**

**Policy 5–14.1: Notify all developers, particularly those of multi-story or critical structures, of potential impacts resulting from Santa Ana Winds, and require appropriate structural and design treatment.**