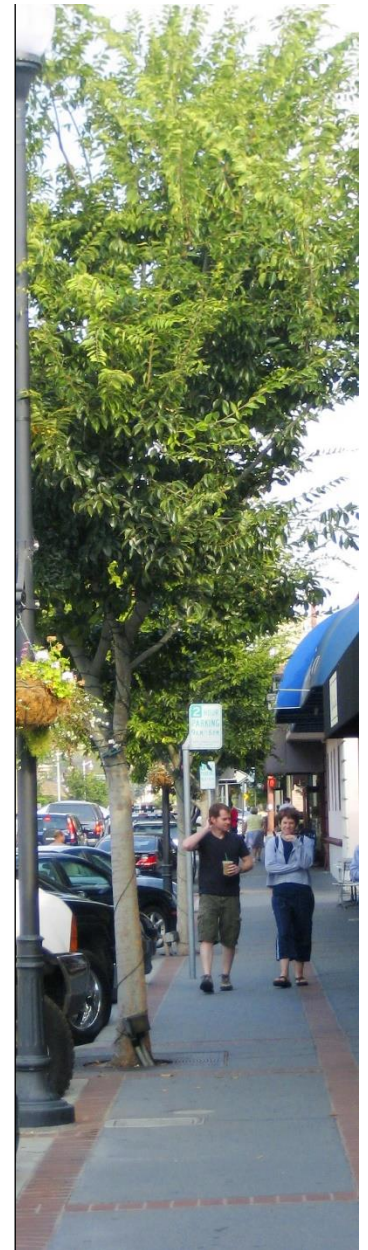


ENVIRONMENTAL SAFETY  
AND PUBLIC SERVICES  
ELEMENT

8



# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

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*The Environmental Safety and Public Services Element provides information about risks in San Carlos due to natural and human-made hazards and contains policies designed to protect the community and its property from these hazards. This Element also provides information about public services in San Carlos.*

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### Introduction

#### Purpose and Scope

The Safety Element is one of the State-mandated elements of the General Plan. It presents the City's overall goals, policies, and action programs to facilitate resilience to natural and man-made hazards. This Safety Element meets the requirements of California Government Code Section 65302(g). Under State planning law, this Element identifies and discusses the following hazards of concern for the City:

- Geology and Seismic Hazards
- Flooding Hazards
- Fire Hazards
- Hazardous Materials and Waste
- Airport Operations
- Emergency and Disaster Preparedness
- Climate Change Resilience

This Element also describes the existing Public Services the City provides to the community.

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### Safety Element Organization

This Element is organized to be consistent with the other General Plan Elements. The guiding principles, goals, policies, and actions provide declarative statements setting the City's approach to safety-related issues as follows:

- **Guiding Principle:** An overarching goal that identifies the major themes addressed in the Goals, Policies, and Actions.
- **Goal:** A general statement of the desired community outcome, denoted as Goal ESPS-# in this Element.
- **Policy:** Policies are efforts that contribute to meeting the goals, denoted as Policy ESPS-#.# in this Element.
- **Action:** A list of recommended programs and future actions necessary to achieve the stated goals and policies, denoted as Action ESPS-#.#x in this Element.

Integrating safety considerations throughout the General Plan creates a consistent framework that prioritizes the well-being of the community. The San Carlos Safety Element is a key component of the General Plan which works in conjunction with other Elements, including:

- **Land Use Element:** shapes the potential physical development of the City and to preserve, protect, and enhance the community's current quality of life consistent with the City's Vision
- **Housing Element:** promotes the maintenance and development of housing to meet the needs of San

Carlos residents. Periodic updates of the Housing Element are required in conjunction with the Regional Housing Needs Allocation prepared by the California Department of Housing and Community Development.

- **Circulation & Scenic Highways Element:** plans for the efficient transportation of goods and the safe and effective movement of people throughout the City.
- **Environmental Management Element:** aims to protect, preserve, and enhance natural resources in San Carlos.
- **Parks & Recreation Element:** provides information and policy guidance to ensure adequate provision of parks and recreational opportunities in the City of San Carlos.
- **Noise Element:** identify sources of noise in San Carlos and to define strategies for reducing the negative impact of noise to the community.

### Regulatory Framework

#### California Government Code 65302(g)(1)

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

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- Protecting against significant risks related to earthquakes, tsunamis, seiches, dam failure, landslides, subsidence, flooding, and fires as applicable.
- Including maps of known seismic and other geologic hazards.
- Addressing evacuation routes, military installations, peak-load water supply requirements, and minimum road widths and clearances around structures as related to fire and geologic hazards, where applicable.
- Identifying areas subject to flooding, sea level rise, and wildfires.
- Avoiding locating critical facilities within areas of high risk.
- Assessing the community's vulnerability to climate change and including adaptation and resilience goals, policies, and implementation actions.

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

California Government Code Section 65302(g)(3) requires the Safety Element to identify and update mapping, information, and goals and policies to address wildfire hazards. As part of this requirement, any jurisdiction that includes State Responsibility Areas (SRAs) or Very High Fire Hazard Severity Zones in the Local Responsibility Areas (LRAs), as defined by the California Board of Forestry and Fire Protection (Board), is required to transmit the updated Element to the Board for review and approval. San Carlos contains Very High

Fire Hazard Severity Zones in the LRA; therefore, compliance with Section 65302(g)(3) is required.

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

California Government Code Section 65302(g)(4) requires the Safety Element to address potential impacts of climate change and develop potential strategies to adapt/mitigate these hazards. Analysis of these potential effects should rely on a jurisdiction's Local Hazard Mitigation Plan (LHMP) or data and analysis from the State of California's Integrated Climate Adaptation and Resilience Program (ICARP) and the State's ResilientCA.org and the Cal-Adapt websites. This Element relies on the most current San Mateo County Multi-Jurisdictional LHMP, and supplemental information from Cal-Adapt to ensure compliance with this requirement.

### **California Government Code 65302(g)(5) adopted through S.B. 99 (2019)**

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

### **California Government Code Sections 8685.9 and 65302.6**

California Government Code Section 8685.9 (also known as Assembly Bill 2140 or AB 2140) limits California's share of disaster relief funds paid out to local governments to 75 percent of the funds not paid for by federal disaster relief efforts. However, if the jurisdiction has adopted a valid Local

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Hazard Mitigation Plan (LHMP) consistent with Disaster Mitigation Act (DMA) of 2000 and has incorporated the LHMP into the jurisdiction's General Plan, the State may cover more than 75 percent of the remaining disaster relief costs.

California Government Code Section 65302.6 indicates that a community may adopt an LHMP into its Safety Element if the LHMP meets applicable State requirements. As the General Plan is an overarching long-term plan for community growth and development, incorporating the LHMP into it creates a stronger mechanism for implementing risk reduction strategies and hazard mitigation projects.

### **National Flood Insurance Program**

The National Flood Insurance Program (NFIP) was created in 1968 to help communities adopt more effective floodplain management programs and regulations. The Federal Emergency Management Agency (FEMA) is responsible for implementing the NFIP and approves the floodplain management plans for participating cities and counties. San Carlos participates in the NFIP and uses Title 15, Chapter 15.56 of the San Carlos Municipal Code to administer flood management regulations.

### **Alquist-Priolo Earthquake Fault Zoning Act**

The Alquist-Priolo Earthquake Fault Zoning Act (California Public Resources Code [PRC], Chapter 7.5, Section 2621-2699.6) was intended to reduce the risks associated with surface faults and requires that the designated State Geologist identify and map "Earthquake Fault Zones" around known

active faults. Per PRC Section 2623(a), cities and counties shall require a geologic report defining and delineating any hazard of surface fault rupture before the approval of a project. If the jurisdiction finds no undue hazard of that kind exists, the geologic report on the hazard may be waived, with the State Geologist's approval.

### **Seismic Hazards Mapping Act**

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



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### **Cortese List**

Government Code Section 65962.5 (typically referred to as the "Cortese List") identifies sites that require additional oversight during the local permitting process as well as compliance with the California Environmental Quality Act (CEQA). The list is generally a compilation of properties and businesses that generate, store, and/or have been impacted by the presence of hazardous materials/wastes. Many properties identified on this list may be undergoing corrective action, cleanup, or abandoned and in need of these activities. The City of San Carlos has a variety of sites identified on this list that range from permitted underground storage tanks, leaking underground storage tanks, sites meeting waste discharge requirements, and land disposal sites.

### **Relationship to Other Documents**

#### *Documents Incorporated by Reference*

#### **San Mateo County Local Hazard Mitigation Plan**

The [2021 Multijurisdictional Local Hazard Mitigation Plan \(LHMP\)](#) identifies risks posed by hazards and contains strategies to reduce the impact of hazard events on people and property in San Mateo County. A planning partnership was formed between San Mateo County and local jurisdictions, including San Carlos, to leverage resources and to meet requirements of the federal DMA for as many eligible local governments as possible. As a participating jurisdiction, San Carlos prepared a jurisdiction-specific annex that documents the jurisdiction's mission, programs, and policies, and

evaluates its capacity to carry them out in a mitigation action plan.

The LHMP was developed to meet the following objectives:

- Meet or exceed program requirements specified under the DMA.
- Enable San Mateo County to continue using federal grant funding to reduce risk through mitigation.
- Meet the needs of San Mateo County as well as state and federal requirements.
- Create a risk assessment that focuses on San Mateo County hazards of concern.
- Coordinate existing plans and programs so that high-priority initiatives and projects to mitigate possible impacts of a disaster are funded and implemented.
- Establish an "equity lens" approach to this plan update process as an option for all planning partners.

The LHMP complies with all requirements set forth under DMA 2000, received approval from FEMA in 2021, and was adopted by the County in 2021. Sections of the Safety Element are supplemented by the LHMP, which is incorporated by reference, as allowed by California Government Code Section 65302(g).

The Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) for the County of San Mateo planning area was developed in accordance with the Disaster Mitigation Act of 2000 (DMA 2000) and followed FEMA's Local Hazard

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

<https://www.smcgov.org/ceo/2021-multijurisdictional-lhmp>

### **San Carlos Climate Mitigation and Adaptation Plan**

The [2021 Climate Mitigation and Adaptation Plan](#) (CMAP) aims to reduce City-wide emissions 40% by 2030 and 80% by 2050 relative to 1990 levels and identifies strategies to achieve those targets. In addition, the CMAP recognizes the potential climate change impacts and vulnerabilities in the community and identifies strategies that support climate adaptation and resilience.

Sections of the Safety Element are supplemented by the CMAP, which is incorporated by reference, as allowed by California Government Code Section 65302(g).

### **San Carlos Safety Element Vulnerability Assessment**

As required by California Senate Bill (SB) 379, adopted in 2015, a jurisdiction's General Plan Safety Element must contain relevant climate adaptation and resiliency strategies. The Safety Element update must include the preparation of a Vulnerability Assessment that identifies the specific risks that climate change poses to the local jurisdiction. The 2021 San

Carlos Safety Element Update Vulnerability Assessment includes an assessment of: (1) the community's exposure to past, current, and projected climate hazards, and (2) responsible agencies and their ability to respond and address climate change impacts.

Sections of the Safety Element are supplemented by the Vulnerability Assessment, which is incorporated by reference, as allowed by California Government Code Section 65302(g).

### **CalWater Urban Water Management Plan**

As required by the California Water Code, all urban water agencies supplying more than 3,000 customers prepare an Urban Water Management Plan. CalWater's 2020 Urban Water Management Plan, Mid-Peninsula District is incorporated by reference.

### *Informational Documents*

#### **San Mateo County Flood and Sea Level Rise Resiliency District Resources**

The San Mateo County Flood and Sea Level Rise Resiliency District, also known as [OneShoreline](#), is an independent government agency that works across jurisdictional boundaries to secure and leverage public and private resources for the long-term resilience of the County.

OneShoreline plans and builds solutions to the climate change impacts of sea level rise, flooding, and coastal erosion, and enhance the environment, recreational opportunities, and quality of life within communities throughout the county.

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### **San Carlos Emergency Operations Plan**

The San Carlos Emergency Operations Plan (EOP) outlines how the City of San Carlos, its government, stakeholder agencies, community-based organizations (CBO), business community, and residents will coordinate a response to major emergencies and disasters. The EOP identifies operational strategies and plans for managing inherently complex and potentially catastrophic events.

The City of San Carlos has officially adopted and integrated the following emergency management, response, and coordination systems:

- Incident Command System (ICS)
- Standardized Emergency Management System (SEMS)
- National Incident Management System (NIMS)

The EOP addresses the four phases of emergency management:

- Preparedness
- Response
- Recovery
- Mitigation

### **San Carlos Vegetation Management Plan**

The San Carlos Vegetation Management Plan, is an ongoing effort to reduce hazardous vegetation fuel loads and vertical and horizontal fuel continuity within the Wildland Urban

Interface (WUI) in City-owned parks located west of Alameda de las Pulgas in the City of San Carlos.

The plan's proposed vegetation management activities will provide benefits to a significant number of residential structures, infrastructure, and natural resources in the areas surrounding Arguello Park, Highlands Park, Eaton Park, Crestview Park, Big Canyon Park and other City-owned parcels by minimizing the potential for wildfire ignition and spread. The plan will also benefit responding fire agency personnel by providing defensible space areas and moderating fire behavior should a fire occur.

### **Santa Cruz County/San Mateo County Wildfire Protection (CWPP) Plan**

The CWPP, adopted in 2018, identifies landscape scale hazards and provides strategic actions to reduce wildfire risk for healthier ecosystems and more resilient communities. The CWPP identifies at-risk communities and provides fuel reduction recommendations for high priority areas. The CWPP can aid communities to apply for state and federal funding for fire prevention and programs.

[www.firesafesanteo.org](http://www.firesafesanteo.org)

## **Community Hazards**

### **Geologic and Seismic Hazards**

This section provides background information on potential public safety issues related to geologic and seismic hazards,



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including earthquakes, surface rupture, liquefaction, expansive soils, subsidence, and landslides.

### *Background Information*

#### **Earthquakes and Surface Rupture**

The Bay Area is in one of the most active seismic regions in the United States. Each year, low and moderate magnitude earthquakes occur in or near the Bay Area. The April 1906 earthquake on the San Andreas fault, estimated at about Moment Magnitude<sup>1</sup> (Mw) 7.9 (M8.3 on the Richter scale), was likely the largest seismic event felt in San Carlos. Figure 8-1 shows the approximate position of the major fault zones in the Bay Area, historical magnitudes and location of the study area in relation to these features. The California Geological Survey has developed a list of cities affected by surface fault ruptures referred to as the Alquist-Priolo earthquake fault zones, called for by the Alquist-Priolo Act. The zones encompass all active and potentially – active traces of the San Andreas, Calaveras, Hayward, and San Jacinto faults, and other faults or fault segments deemed necessary by the State Geologist. San Carlos is not found on the list, although the list does not include all hazards associated with earthquakes. There is an Alquist-Priolo earthquake fault zone near San Carlos, encompassing

---

<sup>1</sup> Moment Magnitude is a type of earthquake measurement that conveys more precise and usable information about seismic events when compared to the Richter scale. Moment Magnitude numbers may appear lower than the traditional Richter magnitudes, particularly for earthquakes greater than 5.0 on the Richter scale.

the area around the San Andreas fault as it passes through the Santa Cruz Mountains and the Crystal Springs Reservoir.

The relative lack of seismic activity since the 1989 Loma Prieta earthquake (Mw 6.9 and M7.1) suggests that the Bay Area will likely experience an earthquake of significant magnitude in the next couple of decades. United States Geological Survey (USGS) scientists and others conclude that there is a 63 percent chance of at least one Mw 6.7 or greater earthquake will strike the San Francisco Bay region before 2036. Earthquakes of Mw 6.7+ magnitude can create ground accelerations in bedrock and in stiff unconsolidated sediments severe enough to cause major damage to structures and foundations that are not designed specifically with earthquake reinforcements and to underground utility lines without sufficient flexibility, to accommodate seismic ground motion. Consequently, it is necessary to design structures and facilities in the city to withstand the anticipated effects of seismic vibration from distant as well as nearby sources.

The principal active faults in the San Carlos area are the San Gregorio, San Andreas, Hayward, Calaveras, and Greenville faults. Table 8-1 contains the estimated characteristics of potential future earthquakes for the three known major faults that would cause at least strong ground shaking in San Carlos. San Carlos is closest to the San Andreas Fault system, an active fault system located approximately one mile west of the city. The San Andreas fault system has the second highest probability (21 percent) of generating a Mw 6.7+ earthquake in

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this timeframe; the Hayward fault has the highest probability at 31 percent. Figure 8-2 shows the San Andreas fault zone, relative to the city and its Sphere of Influence (SOI).

**Table 8 1 Estimated Maximum Parameters for Major Known Faults Affecting the Project Area**

| Fault   |         |         | Hayward |
|---|---------|---------|---------|
| Moment Magnitude (Mw)   | 7.44    | 7.38    | 7.1     |
| Duration of Strong Shaking (seconds)                                | 30 - 60 | 30 - 60 | 30 - 60 |
| Approximate Distance and Direction from City Limit to Fault (miles) | 9.0 SW  | 1.0 SW  | 14.0 NE |

Source: California Geological Survey

The California Department of Conservation has developed maps showing State Earthquake Zones of Required Investigation for fault zones, liquefaction zones, and landslide zones (Figure 8-3 and Figure 8-4). The USGS Earthquake Hazards Program produces maps depicting the projected intensity and extent of seismic activity under various earthquake scenarios (Figure 8-5).

### Liquefaction

Liquefaction generally occurs as a result of strong groundshaking during earthquakes in areas where granular sediment or fill material occur with high moisture content in or immediately below it. The groundshaking transforms the material from a solid state to a temporary liquid state. Liquefaction is a serious hazard because buildings in areas that experience liquefaction may sink or suffer major structural damage. Liquefaction is most often triggered by seismic shaking, but can also be due to improper grading, landslides, or other factors.

Liquefaction potential within the city and its SOI ranges from very low to very high. Liquefaction potential in the western hill areas is low, while the flatlands and bay margins area have high liquefaction potential.

Areas with high liquefaction potential are shown in Figure 8-6. Generally, for the low-lying areas within the mapped 100- or 500-year flood plain, site specific analyses of liquefaction potential should be completed before any major development occurs.

### Expansive Soils

Expansive soils contain higher levels of clay which expand and shrink depending on water content. Consequently, expansive soils present hazards for structures that were not appropriately engineered. The only expansive soils found in the city are located in the northwestern hills and the western

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hills near Interstate 280 (I-280), areas within the SOI but outside the city limit.

These expansive soils are technically referred to as Maymen loams and are classified as having low expansion potential. Figure 8-7 shows the expansive soils in the area.

### **Landslides**

Landslides are downward and outward movements of slope-forming materials such as rock, soil and/or artificial fill. The general characteristics that influence landslide hazards include slope material, slope steepness, water content, vegetation coverage and proximity to areas of erosion or man-made cuts.

The best predictor of where slides might occur is the location of past movements. Landslides occur on some of the upper hilly slopes, more commonly in the western area of the city. Figure 8-8 shows the landslide hazard areas in San Carlos. Differences in the physical characteristics of slope materials, which markedly influence landslide potential, vary widely in terms of landslide hazards. A site-specific geotechnical analysis is needed to accurately assess potential landslide hazards at any specific project location. Stringent City grading and building codes and slope landscaping requirements are in place to address landslide potential. Soils studies and remediation for any problem are required prior to issuance of a permit.

### **Subsidence**


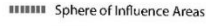





Subsidence is the gradual or sudden sinking of an area of land due to removal or displacement of subsurface earth materials. Subsidence in California is caused by lowered groundwater tables due to groundwater pumping or prolonged drought, drainage, compression of organic soils or mud, underground mining, and natural compaction or collapse. The effects of subsidence include damage to buildings and infrastructure. Sea level rise may lead to increased saturation of the underlying soils along the shoreline, increasing rates and risk of subsidence in eastern San Carlos. Shoreline roads, including Hwy 101, and infrastructure located beneath roads are at an increased risk of damage or failure due to subsidence exacerbated by sea level rise.

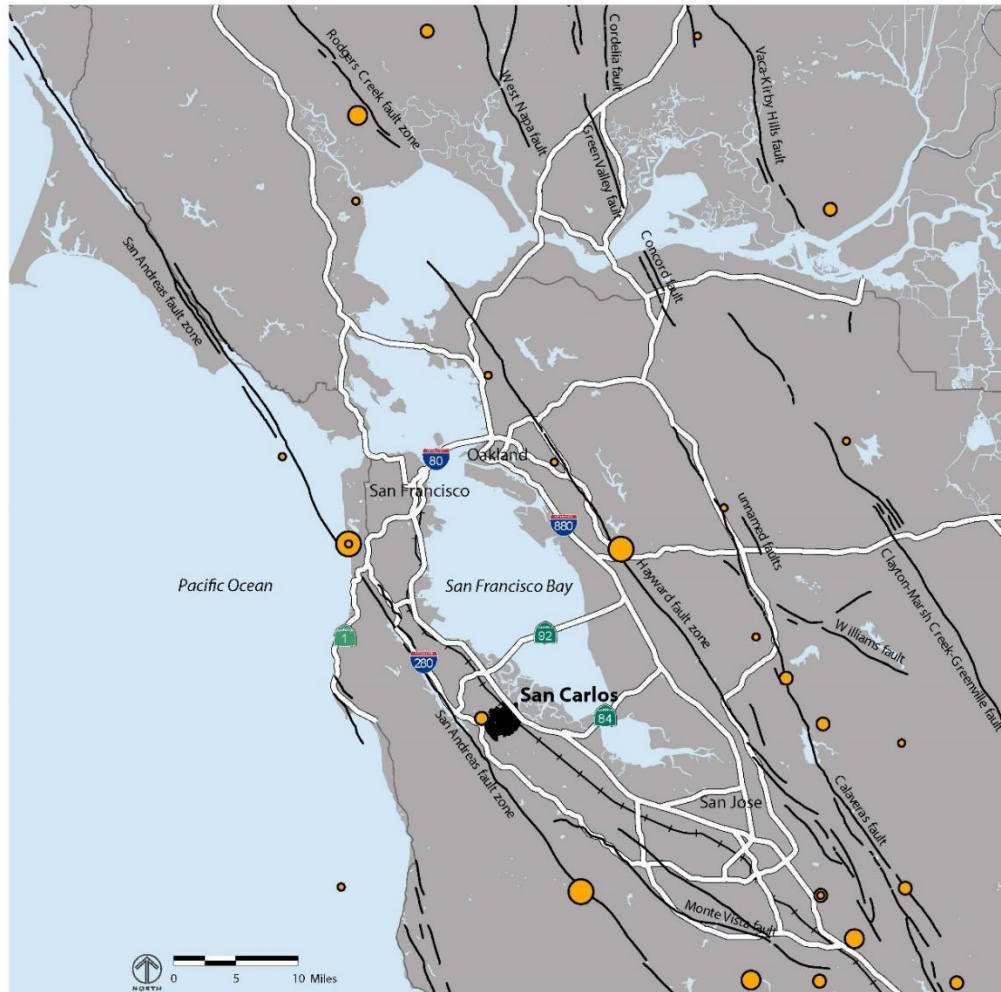
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FIGURE 8-1

### Regional Faults and Historical Earthquakes

-  City Limit
  -  Sphere of Influence Areas
  -  Fault
- Historical Earthquakes 1800 to 1999**  
**Magnitude on the Richter Scale:**
-  5.5 - 5.9
  -  6.0 - 6.4
  -  6.5 - 6.9
  -  7.0 - 7.9



August 2020  
Sources: San Carlos 2030 General Plan, 2007.

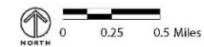
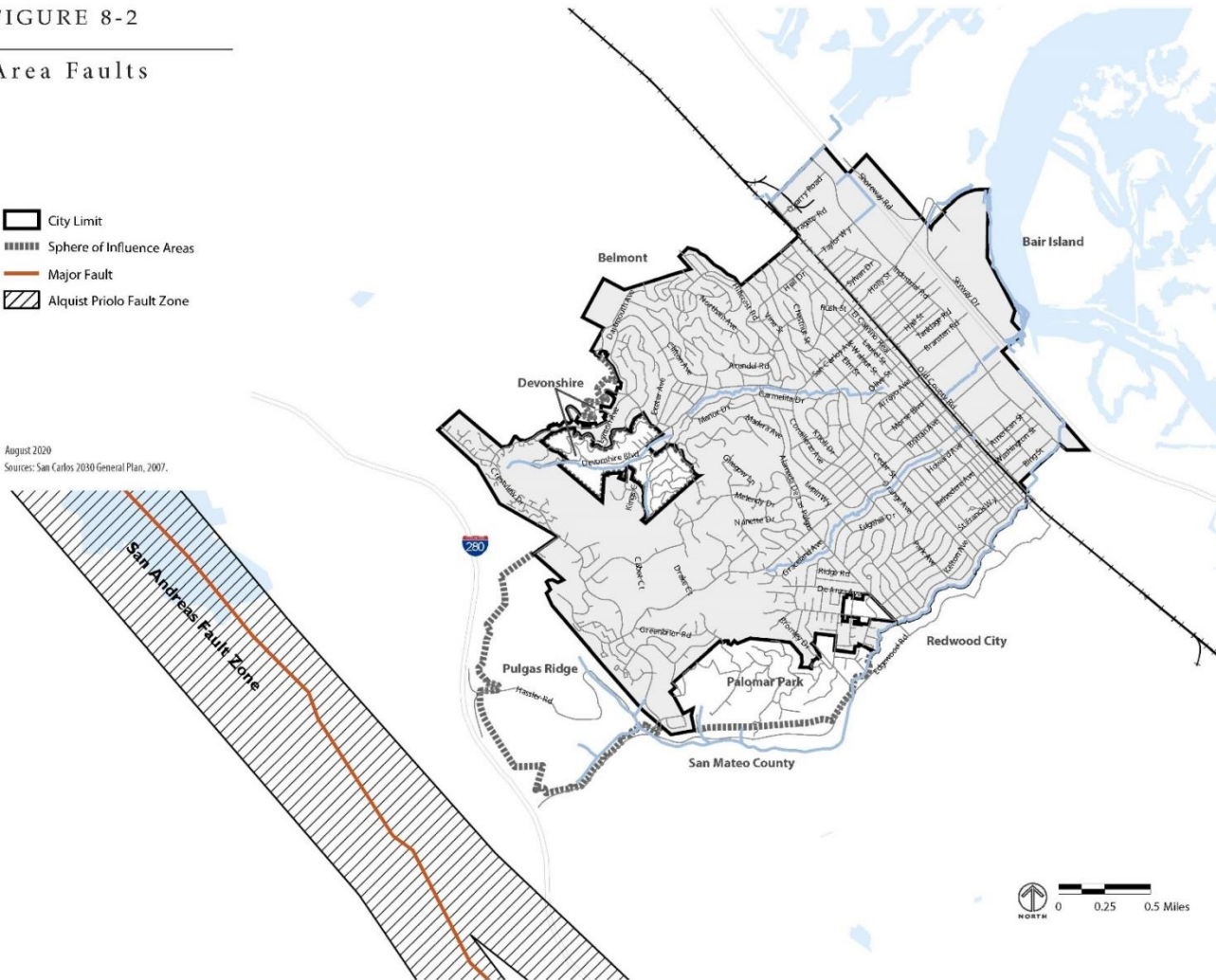
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FIGURE 8-2

Area Faults

- City Limit
- Sphere of Influence Areas
- Major Fault
- Alquist Priolo Fault Zone

August 2020  
Sources: San Carlos 2030 General Plan, 2007.





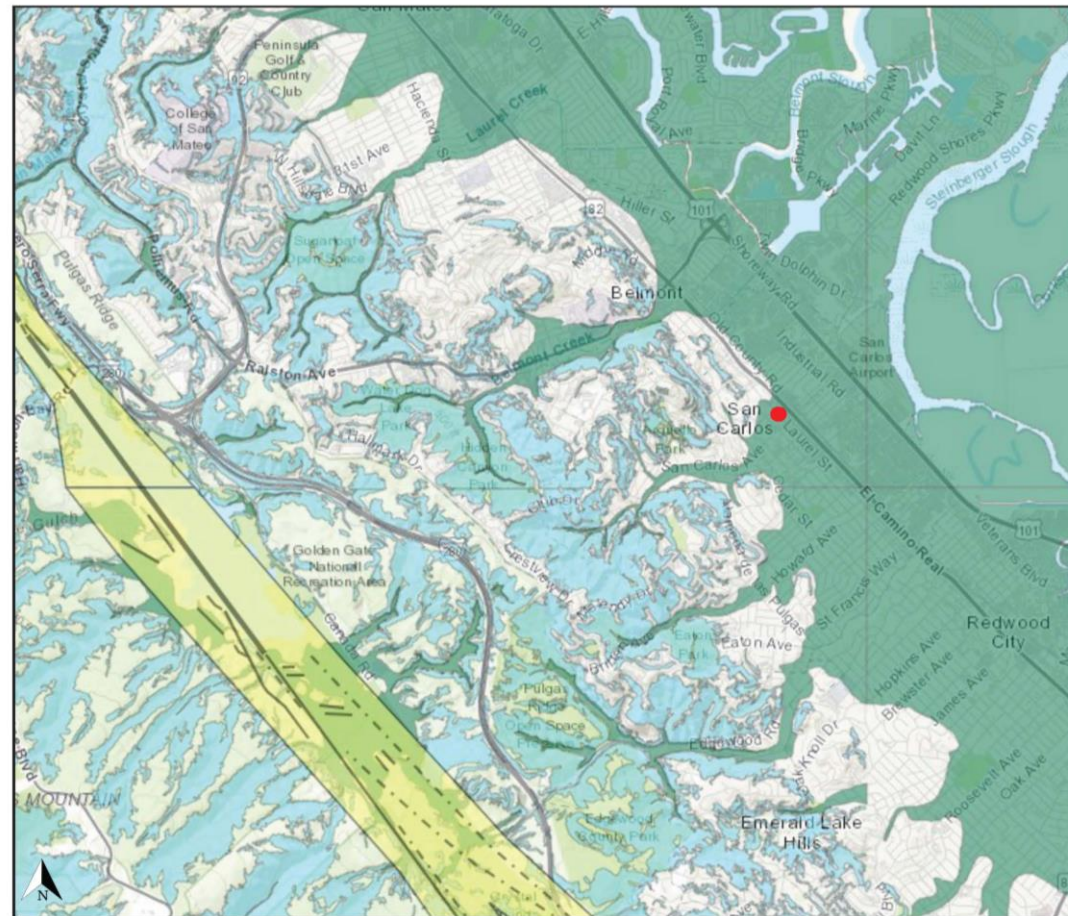
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Figure 8-3

### Earthquake Zones of Required Investigation

Colors may vary due to transparency and overlapping data.

- Fault Traces**
- Accurately Located
  - - - Approximately Located
  - · - · - Approximately Located, Queried
  - - - Inferred
  - · - · - Inferred, Queried
  - · · · · Concealed
  - · · · · Concealed, Queried
  - - - Aerial Photo Lineament
- Fault Zone**
- 
- Liquefaction Zone**
- 
- Landslide Zone**
- 
- Liquefaction Landslide Overlap Zone**
- 
- Area Not Evaluated for Liquefaction or Landslides**
- 
- Parcels**
- Parcel is in an Earthquake Fault Zone, a Liquefaction Zone, and a Landslide Zone
  - Parcel is in an Earthquake Fault Zone and a Liquefaction Zone
  - Parcel is in an Earthquake Fault Zone and a Landslide Zone
  - Parcel is in an Earthquake Fault Zone
  - Parcel is in a Liquefaction Zone and Landslide Zone
  - Parcel is in a Liquefaction Zone
  - Parcel is in a Landslide Zone
  - Parcel is not in a zone or has not been evaluated






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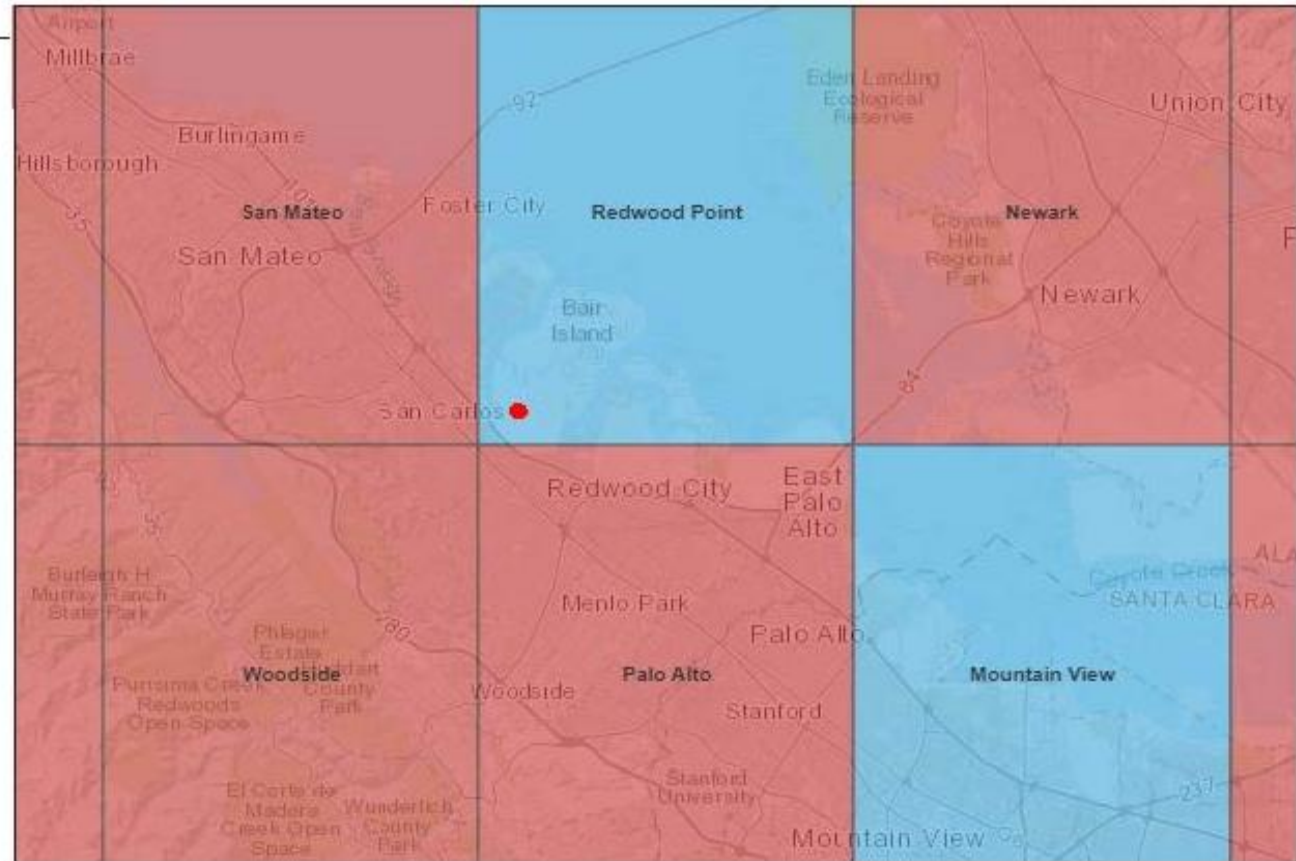
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Figure 8-4

CGS Regulatory Maps

Regulatory Maps

-  Fault Zones, Landslide and Debrisation Zones
-  Seismicity Fault Zones
-  Landslide and Debrisation Zones



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Figure 8-5

USGS Earthquake Scenario Map

**Earthquake Scenarios**

epicenters

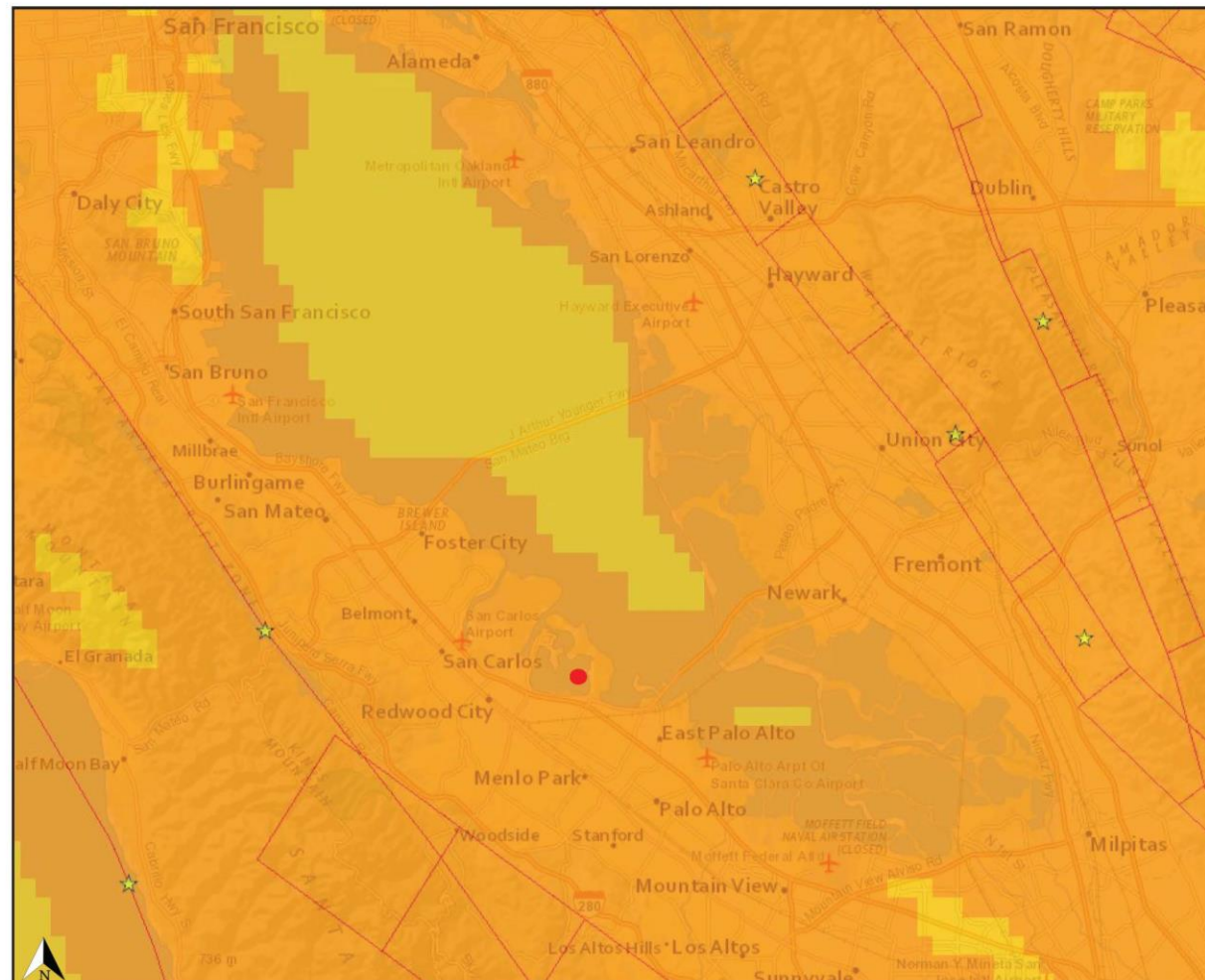


ruptures



Mercalli Intensity

- II-III (Weak)
- IV (Light)
- V (Moderate)
- VI (Strong)
- VII (Very Strong)
- VIII (Severe)




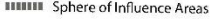
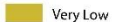

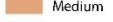
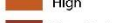
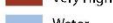



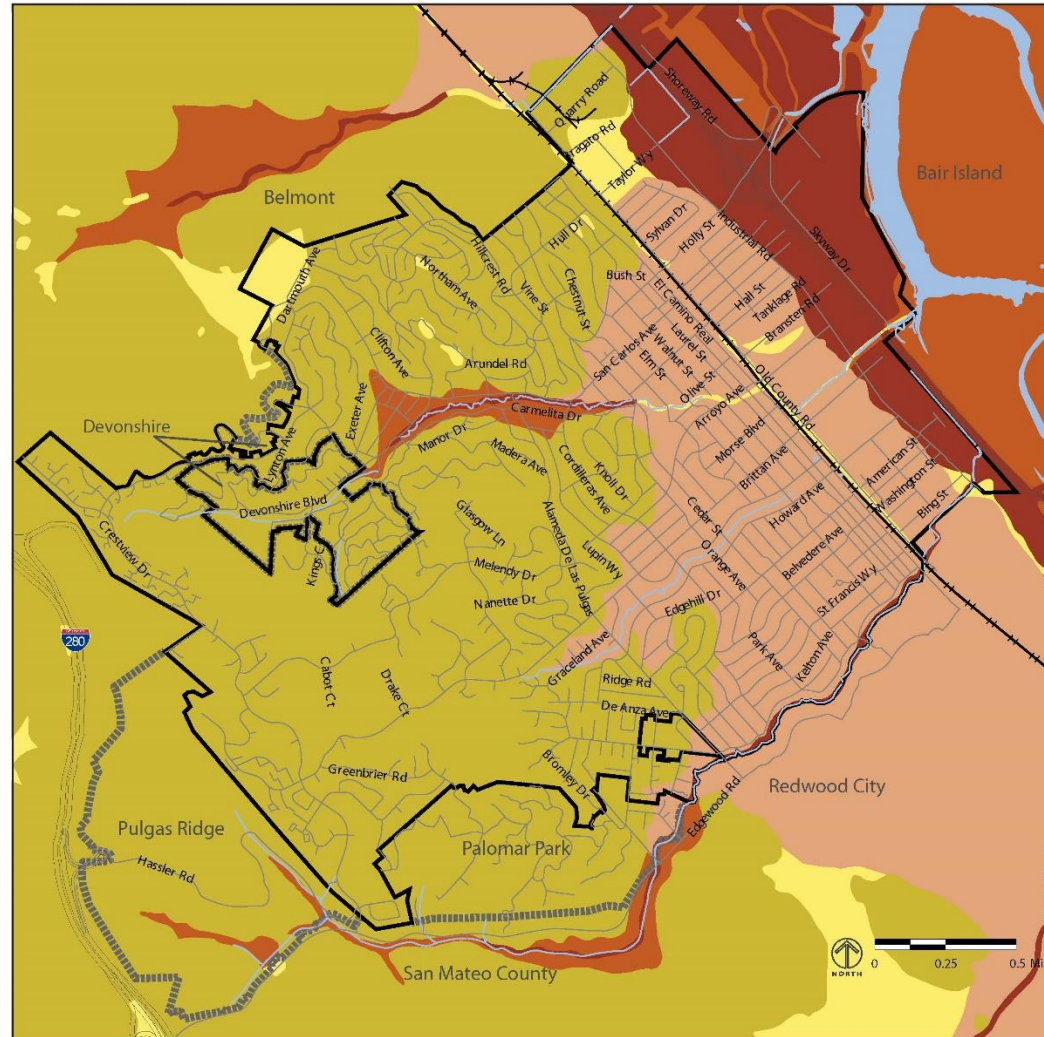
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FIGURE 8-6

### Liquefaction Potential

-  City Limit
-  Sphere of Influence Areas
- Liquefaction Danger**
-  Very Low
-  Low
-  Medium
-  High
-  Very High
-  Water



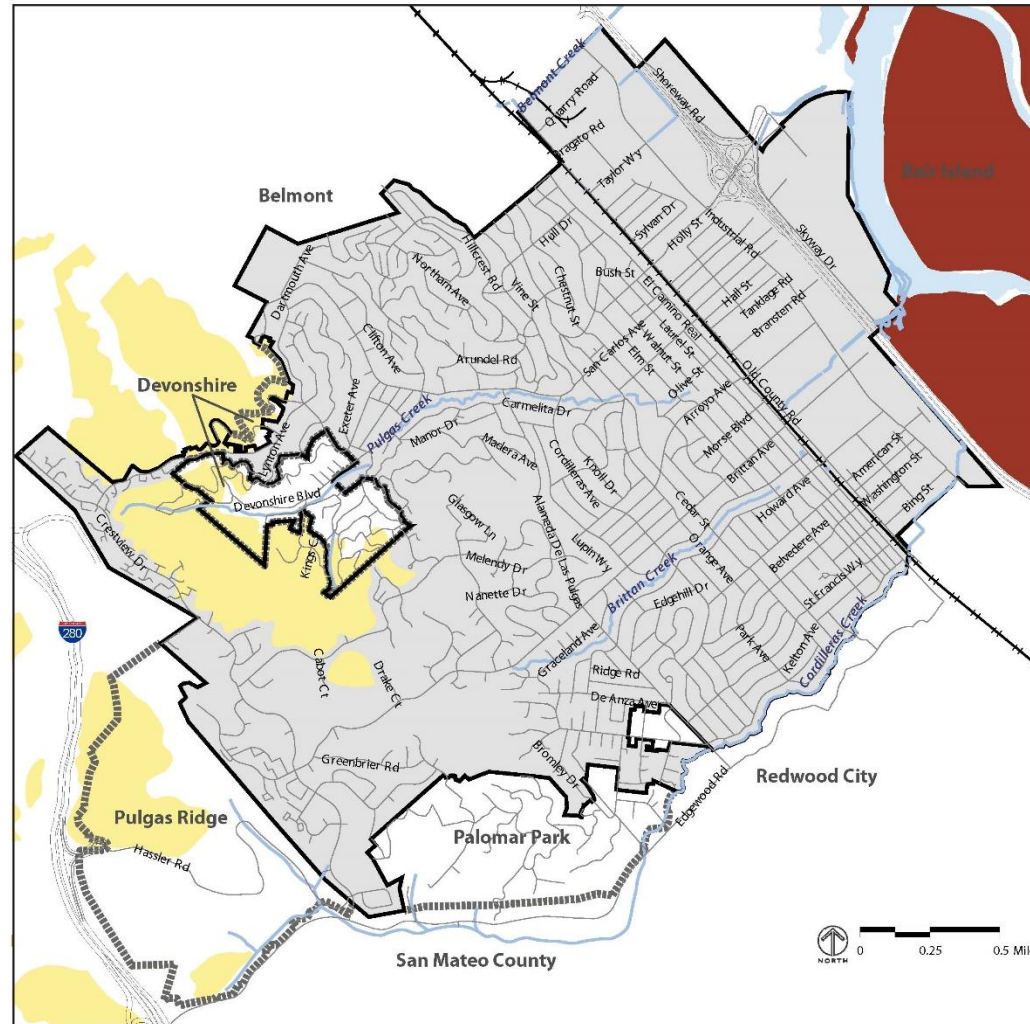
August 2020  
Sources: San Carlos 2030 General Plan, 2007.

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FIGURE 8-7

### Expansive Soils

-  City Limit
-  Sphere of Influence Areas
- Shrink-Swell Class**
-  Low
-  Moderate
-  High
-  No Data



August 2020  
Sources: San Carlos 2030 General Plan, 2007.



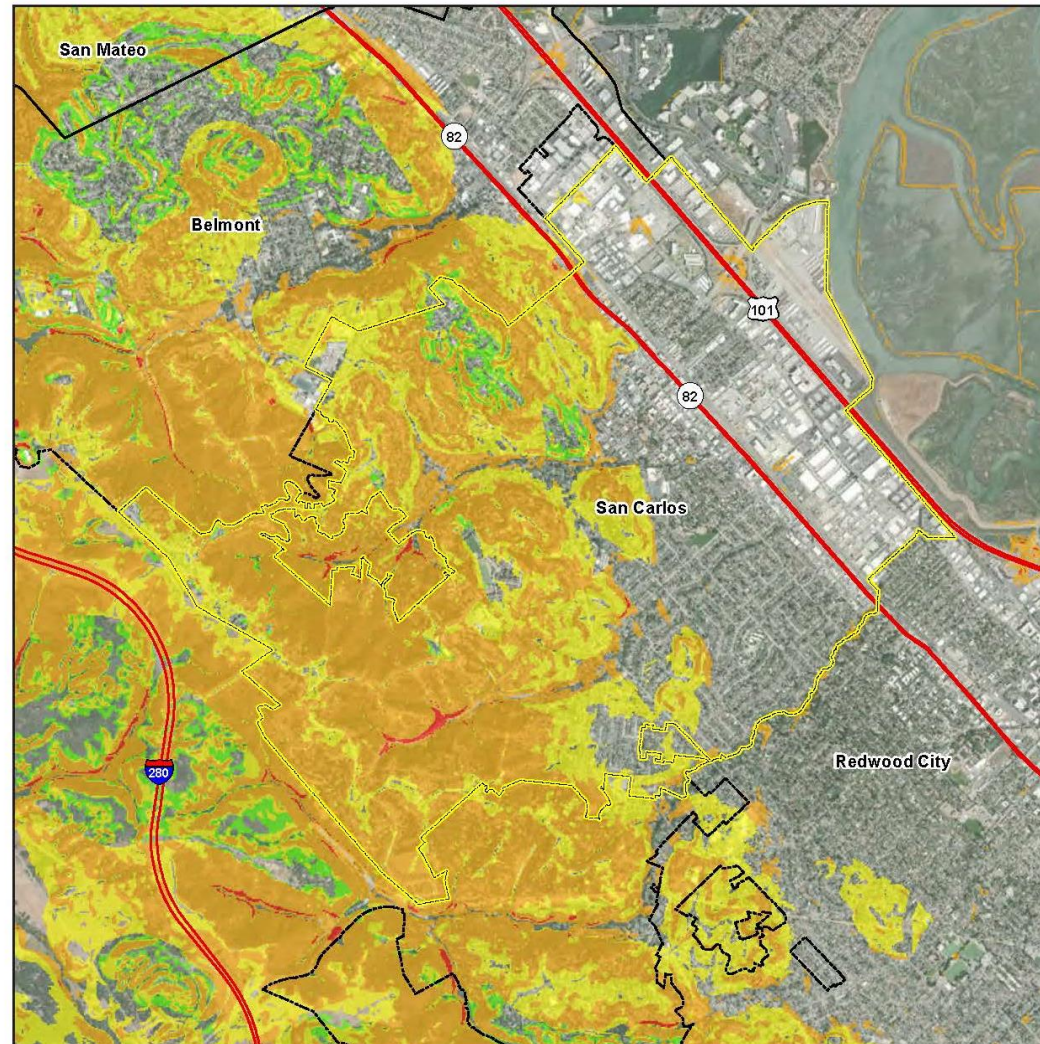
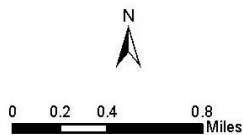
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FIGURE 8-8

Landslide Hazard Areas

- Low
- Moderate
- High
- Very High
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Data Sources: ESRI Basemap, San Mateo Co., CGS



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### Guiding Principles

The Guiding Principle establishes a framework for the basic intent of the element. The Guiding Principle of the Environmental Safety and Public Services Element is:

- Minimize to the maximum extent possible vulnerability to natural and man-made hazards.

### Goals, Policies, and Actions



### GOAL ESPS-1

Reduce the potential loss of life, injury, and property damage due to seismic and geologic hazards.

### POLICIES

**Policy ESPS-1.1** The City Building Official shall verify geotechnical and soils reports for development in areas where potentially serious geologic risks exist. These reports shall address the degree of hazard, design

parameters for the project based on the hazard, and appropriate mitigation measures. Based on the findings of these reports, the City shall require that new structures are designed and built to withstand the effects of seismically-induced ground failure.

**Policy ESPS-1.2** Prohibit structural development in known areas where seismic and geological hazards cannot be mitigated.

**Policy ESPS-1.3** Continue to monitor and enforce mitigation measures to reduce risk for projects where geological and seismic hazards can be mitigated.

**Policy ESPS-1.4** Enforce requirements of the Alquist- Priolo Special Studies Zones Act should any fault traces in San Carlos be discovered and prove to be active or potentially active.

**Policy ESPS-1.5** Continue to incorporate seismic risk analysis into the City's ongoing building inspection program through thorough review of projects by plan check and field inspections.

**Policy ESPS-1.6** Continue to encourage retrofitting of structures, particularly older buildings, to

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withstand earthquake shaking and landslides, consistent with state Building Codes and Historic Building Codes.

**Policy ESPS-1.7** Continue to incorporate geotechnical hazard data into future land use decision-making, site design, and construction standards.

**Policy ESPS-1.8** Actively promote public education, research, and information dissemination on seismic and geotechnical hazards.

**Policy ESPS-1.9** Continue to ensure that seismic hazards are mitigated to the greatest extent possible for critical public facilities, infrastructure, and emergency services.

### ACTIONS

**Action ESPS-1.1** Continue to review the General Plan, Zoning Ordinance, Subdivision Ordinance, and Uniform Building Code to ensure that geotechnical data and information relating to seismic hazards is current and accurate.

**Action ESPS-1.2** Continue to enforce the City of San Carlos Unreinforced Masonry Seismic Retrofit Program ordinance for any existing unreinforced masonry structures that may exist within the city.

**Action ESPS-1.3** Provide opportunity for voluntary retrofit of existing residential buildings by implementing the Standard Plan Set for Residential Seismic Retrofitting as adopted by ABAG.

## Flood Hazards

The following background information on inland flooding and bayshore flooding is sourced, with revisions, from the City of San Carlos Climate Mitigation and Adaptation Plan (2021).

### *Background Information*

#### **Inland and Bayshore Flooding**

Inland flooding can cause significant harm to buildings, people, and infrastructure. Floodwater can be deep enough to drown people and may move fast enough to carry people or heavy objects (such as cars) away. Flooding can be caused by heavy rainfall, long periods of moderate rainfall, or clogged storm drains during periods of rainfall. In rare instances, a break in a water pipe or water tank can also cause flooding. Storm drainage systems throughout the city collect stormwater runoff and convey water to prevent flooding, although these systems are typically designed based on winter storms recorded in the past and may not be designed to accommodate more intense storms anticipated under Climate Change conditions.



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What is currently considered a 100-year flood, or a flood that has a 1-percent chance of occurring annually, may occur more often due to climate change. Figure 8-9 shows that the inland flood hazard areas are primarily located along the bayshore, Pulgas Creek, Cordilleras Creek, and Belmont Creek.

During strong storms and king tides, bay shoreline flooding may damage or destroy commercial buildings in low-lying areas in eastern San Carlos; disrupt transportation routes, such as Highway 101, Shoreway Road, Industrial Road, Holly Street, Old County Road, and Brittan Avenue; and harm important economic assets, such as the Aviation Museum, industrial and manufacturing centers, biotechnology companies, and major employers. Essential infrastructure, such as the San Carlos Airport, bridges, electric vehicle charging stations, solid waste facilities, and water and wastewater infrastructure, may be frequently temporarily inundated, causing them and the community services they support to not function as needed.

Persons experiencing homelessness may live in open spaces along creeks, persons without access to lifelines, or with limited income or access to resources, may be more likely to live in low-lying areas or in less-resilient structures, and therefore are highly vulnerable to bayshore flooding.

The United States Army Corps of Engineers' (USACE) Flood Risk Management Program maintains a National Levee Database of federally, State, and locally constructed, operated,

and maintained levees throughout the United States. The USACE Flood Risk Management Program maps levees operated and maintained by San Mateo County along the Bayshore at the San Carlos Airport. These levees ensure most of the San Carlos Airport, also owned and operated by San Mateo County, is largely but not completely located outside FEMA flood hazard zones and is protected from flood damage (see Figure 8-8). However, the bayshore levees do not protect other areas of the City near the Bay that are located west of the airport. Areas in San Carlos protected from bayshore flooding by levees are represented as flood protection zones shown in Figures 8-15 and 8-16, which depict Flooding and Seal Level Rise.

### **Dam Inundation**

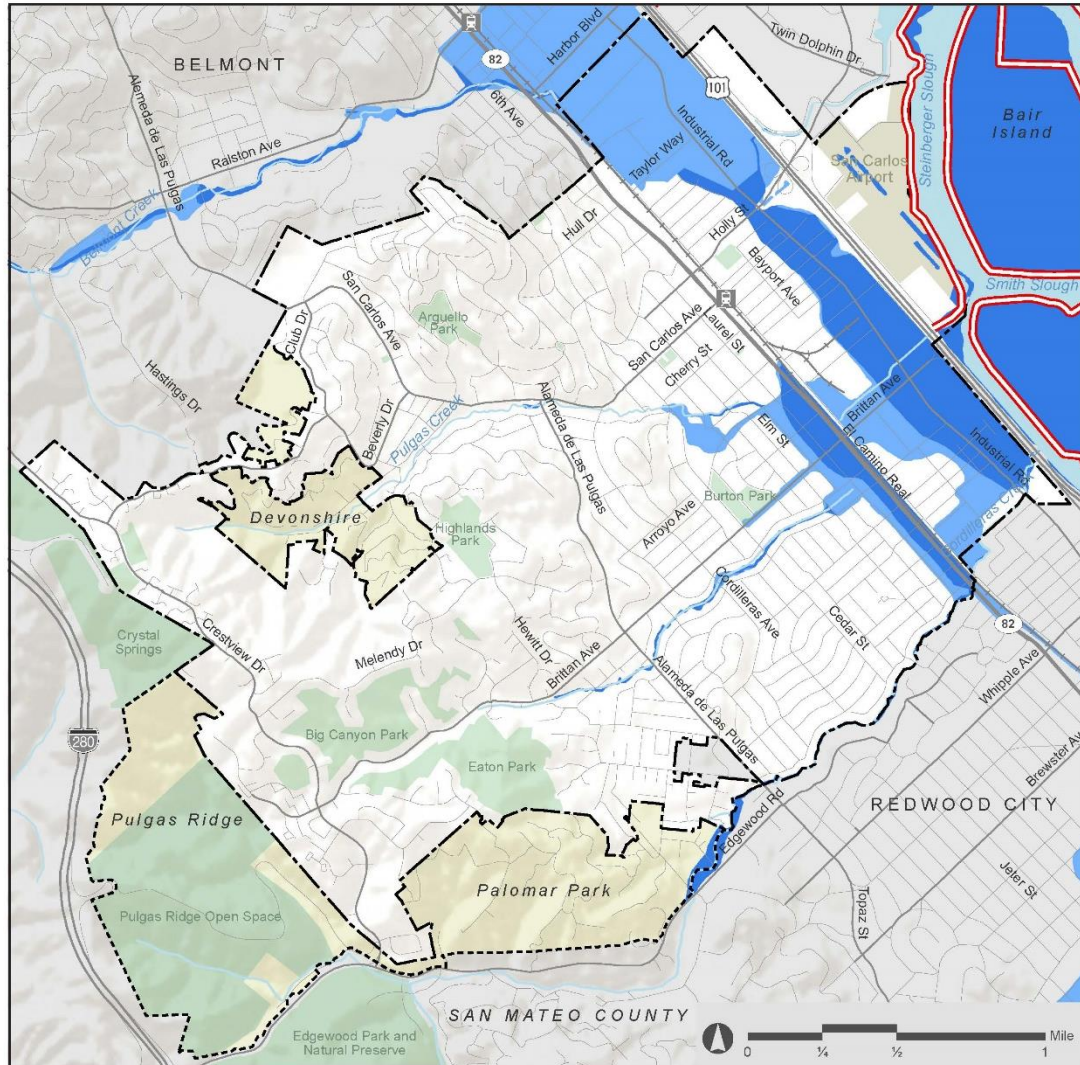
A dam inundation zone is an area in which flooding could occur due to failure of an upstream dam, endangering people, and property within the zone in the instance of such a failure. Dam inundation can be caused by an earthquake or other catastrophe. There are three zones of dam inundation near San Carlos: Lower Crystal Springs Reservoir Dam Inundation Zone, Notre Dame Dam Inundation Zone and Lower Emerald Lake Dam Inundation Zone. However, there are no such zones in the city. Figure 8-10 shows the location of dam inundation areas near San Carlos.

## ELEMENT

FIGURE 8-9

### FEMA Flood Zones

- FEMA Flood Zones**
- 1% Annual Chance (100-year flood)
  - 0.2% Annual Chance (500-year flood)
  - NFHL - Levees
- Base Map Features**
- City of San Carlos Boundary
  - Sphere of Influence
  - Major Streets
  - Streets
  - Caltrain Railroad and Stations
  - Surrounding Jurisdictions
  - Parks and Open Space
  - Waterbodies
  - San Carlos Airport



August 2020




Sources: FEMA, 2016. United States Census Bureau, 2019. NOAA, City of San Carlos, County of San Mateo, Urban Footprint, 2020. NFHL.

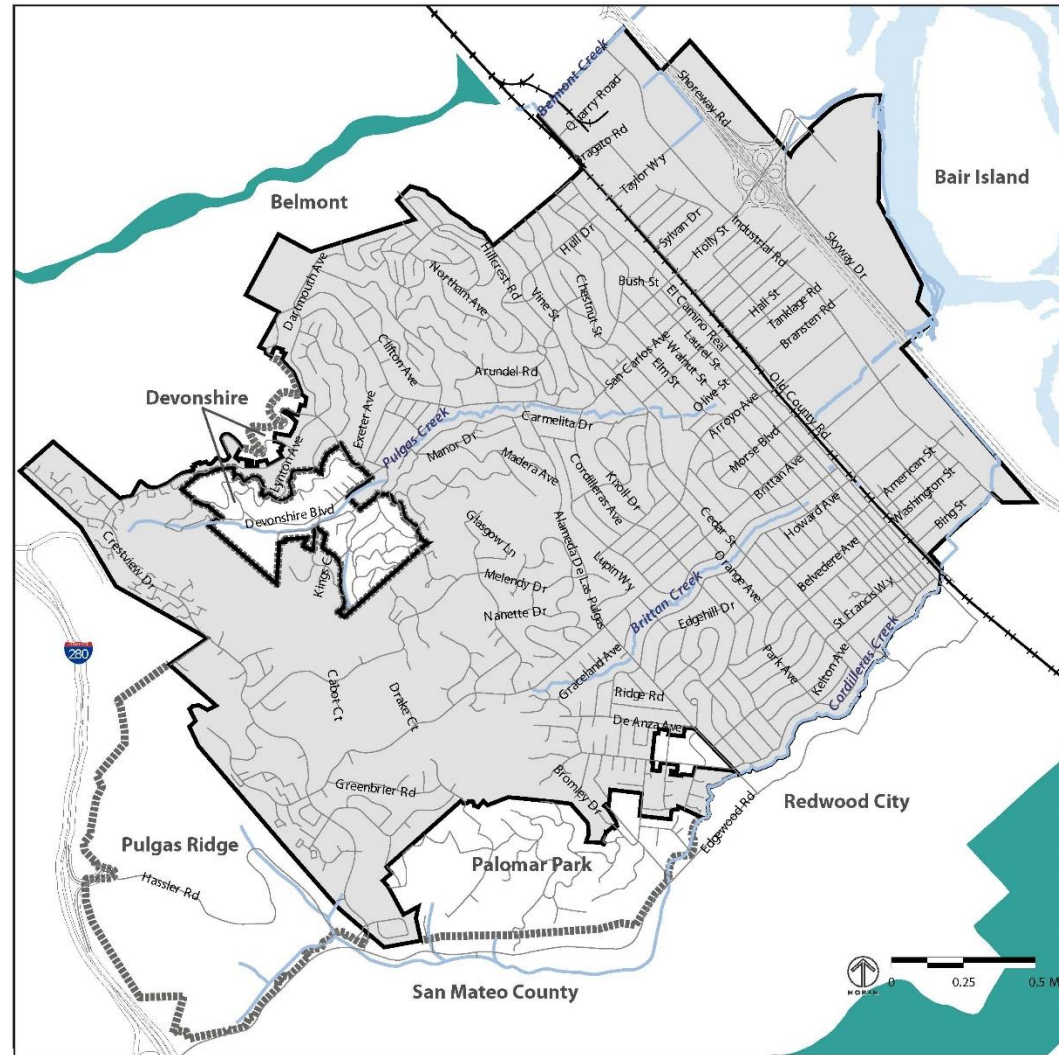


## ELEMENT

FIGURE 8-10

### Dam Inundation Area


-  City Limit
-  Sphere of Influence Areas
-  Dam Inundation Areas



August 2020  
Sources: San Carlos 2030 General Plan, 2007.

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**GOAL  
ESPS-2** Reduce hazards associated with flooding and inundation.

### *Goals, Policies, and Actions*

#### **POLICIES**

**Policy ESPS-2.1** Improve and maintain City storm drainage infrastructure in a manner that reduces flood hazards.

**Policy ESPS-2.2** Maintain and prioritize restoration of a healthy riparian corridor in City-maintained flood control channels such as Pulgas Creek and Belmont Creek to reduce the risk of flooding due to erosion, siltation, blockage, and heavy undergrowth; and increase community access to channels with improved stormwater and flood management strategies.

**Policy ESPS-2.3** Maintain a strong and enforceable Stream Development and Maintenance Ordinance for all city creeks and their tributaries.

**Policy ESPS-2.4** Minimize impervious surfaces to reduce stormwater runoff and increase flood protection.

**Policy ESPS-2.5** Evaluate flood hazards on a watershed level, taking into account all sources of water and the eventual end point of each source.

**Policy ESPS-2.6** Promote City staff knowledge and training on the relationship between watershed health and flood hazards.

**Policy ESPS-2.7** Coordinate with neighboring jurisdictions on approaches to flooding and creek maintenance.

**Policy ESPS-2.8** Continue to work with appropriate local, State, and federal agencies (such as FEMA, San Mateo County OneShoreline Program, City/County Association of Governments (CCAG) of San Mateo County, and San Francisco Bay Conservation and Development Commission (BCDC) to: (1) maintain the most current flood hazard and floodplain information and use it as a basis for project review; and (2) create public-

## ELEMENT

private partnerships to guide development in accordance with federal, State, and local standards.

**Policy ESPS-2.9** Reduce losses due to flooding by encouraging property owners who experience flood damage to reconstruct their properties in a flood-resistant manner.

**Policy ESPS-2.10** Incorporate stormwater drainage systems in development projects to effectively control the rate and amount of runoff to prevent increases in downstream flooding potential.

**Policy ESPS-2.11** Continue to participate in the National Flood Insurance Program. To this end, the City shall ensure that its regulations are in full compliance with standards adopted by the Federal Emergency Management Agency.

## ACTIONS

**Action ESPS-2.1** Consider participating in a regional Watershed Management Plan to perform technical analysis to understand geotechnical, biological, and hydraulic conditions to model the hydrography of the city and identify options to reduce flooding risk and where opportunities exist to restore creeks within

the watershed to a more naturalized condition. Options could include detaining or retaining stormwater runoff in upper portions of the watershed, adding capacity in the lower portions of the watershed and maintaining existing creek and channel capacity through improved maintenance. The Watershed Management Plan would seek to balance the two primary functions of creeks: flood control and riparian habitat.

**Action ESPS-2.2** Amend the Stream Development and Maintenance Ordinance to: (1) include all creeks and tributaries, including Pulgas Creek and Belmont Creek, to strengthen the effectiveness of existing policies and to create vital and accessible community open space with improved stormwater and flood management strategies; (2) increase the required setbacks and landscaping provisions from the existing creek top to improve stormwater detention capacity and to help address flooding issues and creek restoration; (3) prohibit general vehicle access along the creek within the Stream Development Ordinance overlay district.

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**Action ESPS-2.3** Develop preferred streambank stabilization methods, which will guide private property owners in making repairs.

**Action ESPS-2.4** Establish incentives for property owners to stabilize creek banks with natural methods.

**Action ESPS-2.5** Work with private property owners who own creek frontage and educate the public on bio-engineering of creeks to stabilize banks and maintain natural creek forms.

**Action ESPS-2.6** Seek to have property owners downstream of city limit maintain drainage channels in a responsible manner to avoid flooding.

**Action ESPS-2.7** Initiate flood insurance rate map revisions for City projects.

### Wildfire Hazards

This section describes the risk of wildland fires within San Carlos and its SOI.

#### *Background Information*

San Carlos' foothill neighborhoods west of Alameda de las Pulgas are designated Very High Fire Hazard Severity Zones (VHFSZ) by the California Department of Forestry and Fire Protection (CAL FIRE) (Figure 8-11) or as provided by the most current Fire Hazard Severity Zone map published by California Department of forestry and Fire Protection's Fire

and Resources Assessment Program (FRAP). All areas within San Carlos are served by the Redwood City Fire Department and San Mateo County Sheriff Department.

Fire protection in California is the responsibility of either the federal, state, or local government. In State Responsibility Areas (SRA), which are defined according to land ownership, population density, and land use, CAL FIRE has a legal responsibility to provide fire protection. Local Responsibility Areas (LRA) include incorporated cities and cultivated agriculture lands. In LRA, fire protection is provided by city fire departments, fire protection districts, or counties, or by CAL FIRE under contract to local government. All VHFHZ area in San Carlos is LRA. Additional information regarding fire hazards, including wildfire historical data, is found in the County of San Mateo 2021 Multijurisdictional Local Hazard Mitigation Plan (LHMP).

The Heather Elementary School and many homes in the western hills are located within the VHFSZ. Other nearby schools include Carlmont High School, Tierra Linda Middle School, Mariposa Upper Elementary School, and San Carlos Charter Learning Center. Additionally, the Bayview Villa, an assisted living community, is within the unincorporated Devonshire Area. Several California Water Services (Bay Area Region) water tanks are located in the western hills, including at the intersection of Los Vientos Way and Crestview Drive, off of Crestview Drive near Crestview Park, on Melendy Drive

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near Crestview, on Melendy Drive near Heather School, and off of Heather Drive near Melendy Drive.

Wildfire smoke increases air pollution levels and creates a significant health risk. This health risk is particularly pronounced under weather conditions that prevent smoke from clearing, such as those during the lightning complex fires in 2020. In addition, essential roadways, such as evacuation routes and single-access roads, can potentially be blocked by wildfire flames or debris, making it difficult for residents to evacuate and emergency personnel to reach certain areas of the San Carlos. The entire energy delivery system, including electric transmission lines and natural gas pipelines, can also be damaged by wildfires. Coastal scrub and oak woodlands, although somewhat adapted to wildfires, can be substantially harmed by more frequent and severe fires that prevent ecosystems to fully recover.

San Carlos fire service is provided under contract by the City of Redwood City Fire Department. It provides fire protection, hazardous materials response, disaster preparedness, and emergency medical response. The Department of Forestry and Fire Protection (CAL FIRE) has a legal responsibility to provide fire protection to all within the State Responsibility Area. A portion of the San Carlos Sphere of Influence is under the State Responsibility Area.

San Carlos implements the San Mateo County's Zonehaven evacuation system. Zonehaven determines the most efficient

and effective evacuation routes based on the emergency type and location. Evacuation routes will vary; however, Figure 8-12 identifies the roadways most frequently used for evacuations.

Historical fire information is provided in the County of San Mateo 2021 Multijurisdictional Local Hazard Mitigation Plan; it is incorporated by reference.

The City's key strategies for minimizing the toll of seasonal wildfires are as follows.

**Prevention and Awareness.** San Carlos's western neighborhoods exist along the urban/wildfire interface. Because these interface conditions will continue, educating the public about the natural role of fire and measures they can take to best protect properties from wildfires will be critical to minimizing potential property damage and loss of life. Education and enforcement campaigns need to occur year-round, with extra effort expended prior to the fire season. Prevention can include fuel modification and defensible space strategies, restricting construction of new structures in wildfire zones, building wildfire resistance structures, and modifying existing structures.

**Protection.** The goal in any firefighting operation is to provide adequate fire suppression service to protect buildings and infrastructure in immediate danger from a wildfire. In San Carlos, many structures lie within the Very High Fire Hazard Severity Zone. Coordination among multiple firefighting



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agencies and mutual aid agreements are needed to fight major wildfires in the San Cruz Mountains and foothills. Ensuring adequate water supplies and pressure is critical. Additionally, warning systems and clear delineation of evacuation routes can protect lives.

**Recovery.** Following a major fire, the community may face the need to fix damaged infrastructure. Addressing repair/replacement of burned homes needs to include a thorough assessment of how to minimize recurrences.

### Water Supply

San Carlos' water supply is provided by CalWater, which prepared an Urban Water Management Plan (UWMP) through 2045. CalWater's Mid-Peninsula District shows supply capacity through 2045. CalWater's Individual Supply guarantee is 35.68 MGD (million gallons per day) or 3,993 AF (acre feet) from the SFPUC. The 2020 UWMP estimates 2045 demand will be 36,396 AF. The 2020 UWMP shows adequate supply to meet projected demand through 2045 in normal years. In dry years, UWMP shows a deficit, however, the UWMP outlines strategies to reduce/restrict use and/or augment supply.

### *Wildland Urban Interface (WUI)*

*The WUI is the zone of transition between unoccupied land and human development. It is the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.*

*Source: U.S. Fire Administration*

## ELEMENT

FIGURE 8-11

### Fire Hazard Severity Zones and At-Risk Development

Fire Hazard Severity Zones

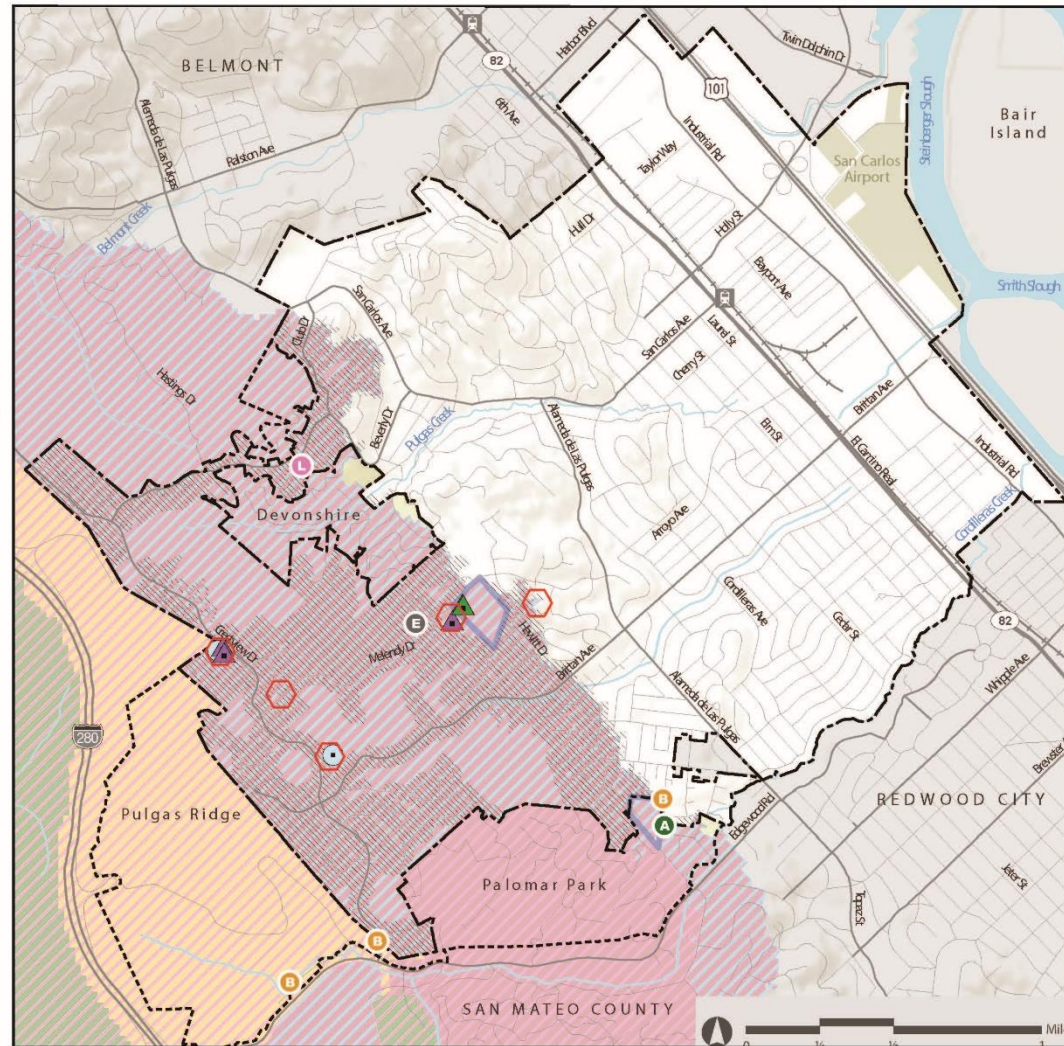
- Moderate
- High
- Very High
- Local Responsibility Area (SRA)
- State Responsibility Area (SRA)

All fire hazard severity zones within San Carlos city limits are within the San Carlos Local Responsibility Area for fire emergency response. All other fire hazard severity zones illustrated in this map are within the State Responsibility Area or other Local Responsibility Areas.

At Risk Development and

- Residential Uses
- Clifford Elementary & Heather Elementary
- A Alternative Energy Fueling Stations
- B Bus Stops
- C California Water Service Water Tanks
- E Emergency Shelters
- L Bayview Villa Assisted
- FM
- Microwave
- Water Tank

April 2022  
Sources: United States Census Bureau, 2019; State of California Department of Forestry and Fire Protection; City of San Carlos, County of San Mateo



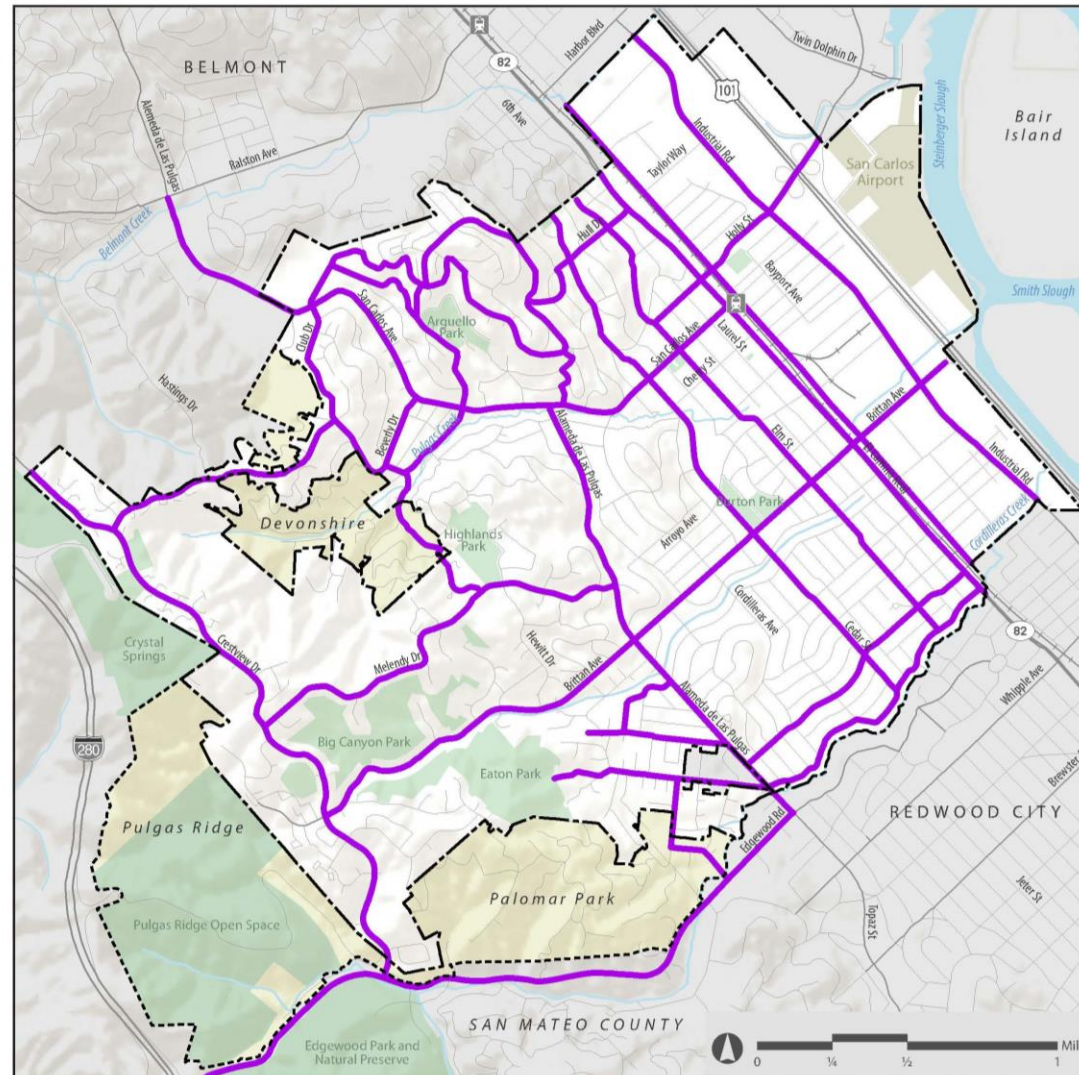


# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

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**FIGURE 8-12**  
Evacuation  
Routes

- Evacuation Routes**
-  Evacuation Routes
- Base Map Features**
-  City of San Carlos Boundary
  -  Sphere of Influence
  -  Major Streets
  -  Streets
  -  Caltrain Railroad and Stations
  -  Surrounding Jurisdictions
  -  Parks and Open Space
  -  Waterbodies
  -  San Carlos Airport



January 2022  
Sources: United States Census Bureau, 2019.  
City of San Carlos, County of San Mateo, Urban Footprint, 2020.

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

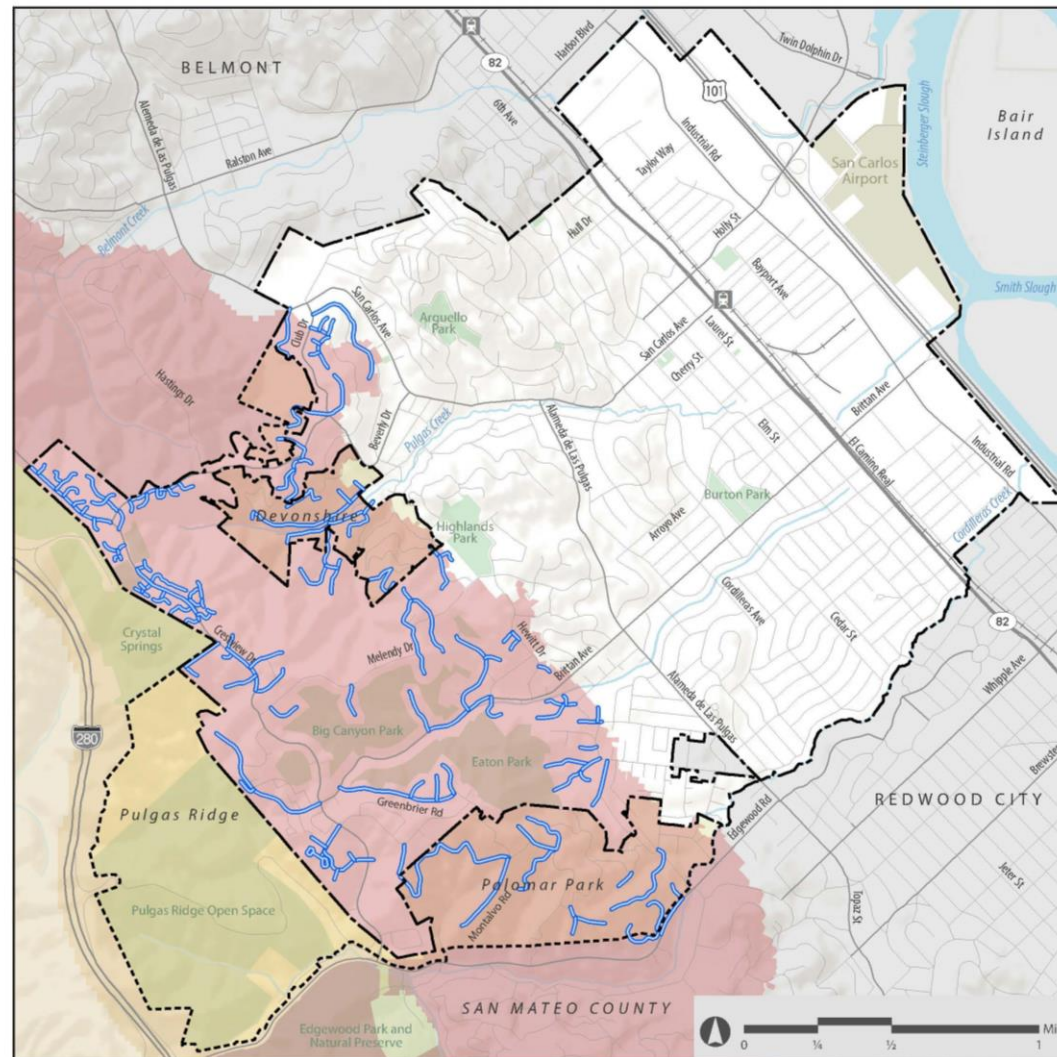
## ELEMENT

FIGURE 8-13

### Single Access Roads

- Wildfire Hazards**
- Very High
  - High
  - Moderate
  - Single Access Roads

- Base Map Features**
- City of San Carlos Boundary
  - Sphere of Influence
  - Major Streets
  - Streets
  - Caltrain Railroad and Stations
  - Surrounding Jurisdictions
  - Parks and Open Space
  - Waterbodies
  - San Carlos Airport



January 2022  
Sources: United States Census Bureau, 2019.  
City of San Carlos, County of San Mateo, Urban Footprint, 2020.

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

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### Goals, Policies, and Actions



#### GOAL ESPS-3

Agency Coordination: A resilient San Carlos is well prepared to minimize risks associated with wildfire.

#### Agency Coordination and Fire Prevention Planning

#### POLICIES

**Policy ESPS-3.1** Promote and improve, as necessary, inter-jurisdictional fire prevention assessment, planning, and projection; and consultation and communication regarding disaster or emergency plans of San Carlos and Mutual Aid with adjacent agencies including but not limited to San Mateo County, Redwood City, Belmont, and CAL FIRE.

#### ACTIONS

- Action ESPS-3.1** Maintain participation in the Joint Powers Authority Agreement with all fire departments in San Mateo County to ensure required response times for initial emergency deployment personnel and equipment.
- Action ESPS-3.2** Preserve the local government agreement with California Department of Forestry and Fire Protection (CAL FIRE) for responses in the Mutual Threat Zone (MTZ) within the Wildland Urban Interface (WUI) areas of the city. Continue to provide equipment and personnel under the mutual aid agreement, with the State of California Office of Emergency Service (OES) Region II. This continued “reverse support” enables the City of San Carlos to receive “no cost” statewide mutual aid in the event of a declared large-scale emergency.
- Action ESPS-3.3** Collaborate with the regional fire agencies on strategies available to maintain defensible space, diverse plant composition (e.g., less combustible native plants), undertake appropriate thinning of vegetation, and maintain fuel breaks without permanently damaging native habitat.



## ELEMENT

## Facilities and Training

## POLICIES

**Policy ESPS-3.2** Conduct annual training for fire, emergency medical, and police staff including cross training with adjacent automatic or mutual aid emergency response departments. Regularly maintain, test, and update training and equipment to meet current standards.

**Policy ESPS-3.3** Ensure adequate Fire Department resources (fire stations, personnel, and equipment) to meet response time standards, keep pace with growth, and provide a high level of service to the community.

## ACTIONS

**Action ESPS-3.4** Continue to work with the Redwood City Fire Department to ensure that fire services are maintained at adequate levels. With subsequent Safety Element updates, assess and project future emergency service needs. Continue to monitor service area to ensure that all San Carlos areas have fire service. Monitor the City of San Carlos' fire protection rating and work with the Redwood City and San Mateo County Fire

Departments to correct deficiencies and to ensure ongoing training, including cross training is conducted.

**Action ESPS-3.5** Train and educate public volunteers in basic fire safety response.

## Land Use Planning

## POLICIES

**Policy ESPS-3.4** Locate essential public facilities out of high-risk, wildfire-prone areas including the VHFHSZ unless mitigation measures, above the minimum fire protection standards, are installed.

**Policy ESPS-3.5** Prioritize infill development opportunities to prevent increased development in the WUI and Very High Fire Severity Zones (VHFSZ).

**Policy ESPS-3.6** Minimize new development (residential and nonresidential) within the VHFSZ.

**Policy ESPS-3.7** Consider the preservation of undeveloped ridgelines to reduce fire risk and improve fire protection.

**Policy ESPS-3.8** Regularly review and confirm the City's re-development policy for all structures in

## ELEMENT

VHFSZs after large fires. If the City has an unwritten policy, adopt a written re-development policy.

**Policy ESPS-3.9** Incorporate or require the incorporation of fire safety features in new development and re-development.

**Policy ESPS-3.10** Require new residential developments to:

- have adequate fire protection; and
- be more wildfire resistant by establishing greenbelt zones for fire resistant landscaping.

**Policy ESPS-3.11** Require new residential development to be designed in such a manner that reduces wildfire hazard and improves defensibility (e.g. clustering lots, managed greenbelts, water storage, fuel modification zones, and vegetation setbacks.)

## ACTIONS

**Action ESPS-3.6** Discourage critical facilities being in the VHFSZ.

**Action ESPS-3.7** Periodically re-evaluate the City's policy allowing rebuilding in the VHFSZ. If the policy is unwritten, adopt a formal written policy.

**Action ESPS-3.8** When a fire has occurred in the VHFSZ, evaluate if street design and size can be reconfigured to improve emergency access and evacuation efficiency.

**Action ESPS-3.9** If development is permitted within the VHFSZ, require:

- a Fire Protection Plan addressing: risk analysis, fire response capabilities, fire safety requirements (defensible space, infrastructure, and building ignition resistance), mitigation measures and design considerations for non-conforming fuel modification, and wildfire education maintenance and limitations;
- landscape/fuel modification installation, incorporating open areas to complement defensible spaces, identifying possible refuge areas, and mapping and providing multiple ingress and egress routes;
- resident evacuation plans and ways to effectively communicate those plans, including identifying the location and direction of evacuation routes and at least two points of ingress and egress; and
- a roadside fuel reduction plan to prevent fires along public roads caused by vehicles.

## ELEMENT

**Action ESPS-3.10** Enforce fire standards and regulations while reviewing building plans and conducting building inspections.

## Water Supply

## POLICY

**Policy ESPS-3.12** Ensure adequate water supply is available.

## ACTIONS

**Action ESPS-3.12** Require new development projects have adequate water supplies to meet the fire-suppression needs of the project without compromising existing fire suppression services to existing uses.

**Action ESPS-3.13** Work with water suppliers (Cal Water) to:

- maintain and ensure the long-term integrity of future water supply for fire suppression needs;
- ensure that water supply infrastructure adequately supports existing and future development and redevelopment;
- provide adequate water flow to combat structural and wildland fires, including during peak domestic demand periods. Water systems shall equal or exceed the standards of the latest edition of National Fire Protection Association (NFPA) 1142,

“Standard on Water Supplies for Suburban and Rural Fire-Fighting.”;

- ensure water infrastructure can provide for peak fire flow; and
- identify where water infrastructure does not allow for peak fire flow and develop a plan to mitigate the deficiencies.

## Construction and Property Maintenance

## POLICY

**Policy ESPS-3.13** Ensure new and existing public and privately owned properties are constructed and maintained in a manner that minimizes and reduces fire hazard threats and has adequate fire protection.

## ACTIONS

**Action ESPS-3.14** Condition all new development and redevelopment to have adequate fire protection, incorporate and maintain fire safe design, including fuel modification zones, defensible space, two ingress/egress points, emergency vehicle access, and visible home addressing and street signage.

## ELEMENT

**Action ESPS-3.15** Require the use of fire-retardant roofing material for all new construction and major remodels involving roof additions. Encourage property owners with shake shingle roofs to upgrade to fire-retardant materials.

**Action ESPS-3.16** Continue to enforce the brush clearance/weed abatement program for both private and public roads as well as City-owned open spaces.

**Action ESPS-3.17** Continue code enforcement programs requiring private and public property owners to maintain buildings and properties to prevent blighted conditions, remove excessive or overgrown vegetation (e.g., trees, shrubs, weeds), and remove litter, rubbish, and illegally dumped items from properties.

**Action ESPS-3.18** Seek grants and other funding sources to assist low-income residents with home hardening efforts.

**Action ESPS-3.19** Adopt an ordinance or update existing ordinances to require development standards that meet or exceed title 14, CCR, division 1.5, chapter 7, subchapter 2, articles 1-5 (commencing with section 1270) (SRA Fire Safe Regulations) and title 14, CCR, division 1.5, chapter 7, subchapter 3, article 3 (commencing

with section 1299.01) (Fire Hazard Reduction Around Buildings and Structures Regulations) for SRAs and/or VHFHSZs.

**Action ESPS-3.20** Within the VHFSZ, the City's building and planning departments will work with local fire departments, community organizations, and other responsible organizations to require and ensure:

- the installation of fire protection water system for all new construction projects including fire hydrant installation, fire sprinkler, or suppression systems, and providing adequate fire flow;
- the long-term maintenance of defensible space clearances around structures, subdivisions, and fire breaks; and
- all structures rebuilt/re-developed after a large fire to comply with building and fire codes in effect at the time of the re-development.

**Action ESPS-3.21** Conduct a survey of existing residential structures (including vegetation) within the VHFSZ identifying buildings that do not comply with fire safety standards. Consult with property owners to bring those properties into compliance with the most current building and fire safety standards.



## ELEMENT

**Action ESPS-3.22** Consider developing or improving structure hardening standards for community refuges (such as schools, hospitals, evacuation centers).

**Action ESPS-3.23** Evaluate the City's roadways regarding access, alignments, etc. to facilitate fire, police, and ambulance access and resident egress in case of an emergency.

### Access and Evacuation Policies

#### POLICIES

**Policy ESPS-3.14** Provide adequate evacuation routes and access for fire and emergency service vehicles to all San Carlos areas.

**Policy ESPS-3.15** Identify and implement measures to mitigate the single access roads and non-conforming roadways, as feasible.

#### ACTIONS

**Action ESPS-3.24** Identify streets and key intersections that, due to pavement width, hairpin turns, and tight curves, if not cleared of vehicles, may interfere with emergency vehicle access and/or resident evacuation during a fire.

**Action ESPS-3.25** Identify the potential for street widening and improvement during regular Capital Improvement project maintenance, e.g., emergency access, utility undergrounding, resurfacing, and American with Disabilities (ADA) compliance.

**Action ESPS-3.26** Prohibit parking on one or both sides of a street identified as having the potential to interfere with emergency vehicle access and/or resident evacuation during a fire, when Red Flag alerts have been issued.

**Action ESPS-3.27** In conjunction with the use of the Zonehaven system, supplement the evacuation plan as shown in Figure 8-12, with special emphasis placed on the areas that do not have sufficient access and egress identified on Figure 8-13. Recommend improvements to ensure adequate evacuation capabilities.

**Action ESPS-3.28** Conduct a study to review evacuation routes, their capacity, safety, and viability under a range of emergency scenarios as set forth in AB 747. Determine remedial actions, as appropriate. Update evacuation plans with each update of the Safety Element to address changes in at-risk areas and populations.

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

## ELEMENT



### GOAL ESPS-4

Develop a community that proactively prevents wildfires and protects life, property, and infrastructure from urban and wildfire impacts.

### POLICIES

**Policy ESPS-4.1** Provide public education to promote community awareness and preparedness for self-action in the event of a major disaster or emergency.

### ACTIONS

**Action ESPS-4.1** Partner with Redwood City Fire Department, San Mateo Sheriff Department, neighboring cities, regional agencies, local school districts, local businesses, and community organizations to:

- conduct emergency and disaster preparedness exercises that test operational

- and emergency response plans (including evacuation routes); and
- prepare and conduct public outreach regarding evacuation procedures and routes and defensible space.

**Action ESPS-4.2** Identify at-risk populations that would be vulnerable during wildfire evacuations and provide information to the at-risk residents regarding defensible space and evacuation routes.

**Action ESPS-4.3** Prepare and make available to the public a current map of areas subject to wildland fires as provided by the California Department of Forestry and Fire Protect (CAL FIRE).

**Action ESPS-4.4** Implement a fire hazards education program to minimize risk for residential, commercial, and institutional uses.

- Provide training opportunities for residents for fuel modification methods, practices, and materials.
- Prepare and distribute two vegetation lists – one identifies recommended vegetation in the VHFSZ and the other identifies prohibited vegetation in the VHFSZ.

## ELEMENT

**Action ESPS-4.5** Create and promote enrollment in a San Carlos emergency reverse dial program. Work with vulnerable populations to ensure enrollment.

**Action ESPS-4.6** Consider establishing an outdoor warning system in the VHFSZ designed to alert residents about possible fire danger.

### **Hazardous Materials and Waste**

A “hazardous material” is defined by the California Health and Safety Code Section 25501 as, “any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.” Products as diverse as gasoline, paint solvents, film solvents, household cleaning products, refrigerants and radioactive substances are categorized as hazardous materials. What remains of hazardous material after use, or processing, is considered to be a hazardous waste.

#### *Background Information*

This section describes hazardous material sites, hazardous waste collection, and hazardous materials response in San Carlos.

**Hazardous Material Sites.** Due to San Carlos’ history of industrial use, hazardous materials may be present in the soils and groundwater in or near these areas, especially in the East Side and along portions of El Camino Real. Common hazardous materials in industrial areas include oils, fuels, paints, solvents, acids and bases, disinfectants, and metals. Legacy pollutants used in industrial practices up to the 1970s, such as polychlorinated biphenyl (PCB), may also be present in these areas. The State Department of Toxic Substances Control (DTSC) is responsible for maintaining a list of sites with active hazardous material users and/or generators and sites with historical or current environmental contamination. The Department is also responsible for coordinating the cleaning-up of contaminated sites. Figure HAZ-1 in Appendix A shows the locations of hazardous materials sites in San Carlos according to the DTSC’s records. Table HAZ-1, in Appendix A, lists the hazardous materials sites with current or historic environmental contamination.

Hazardous materials have also been known to infiltrate the groundwater, in some cases contaminating entire groundwater systems. There are currently no known regional plumes of contaminated groundwater, according to the County of San Mateo Health Services Agency and the State Water Board.

**Hazardous Materials Response.** The Hazardous Materials Response Team of San Mateo County responds to hazardous materials emergencies throughout the county. The team is

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comprised of the South County Fire Hazmat Team, the Environmental Health Division of the County Health Services Agency, and the Sheriff's Office of Emergency Services.

***Household Hazardous Waste (HHW).*** Hazardous waste generated by San Carlos residences is collected in part by the recycling and solid waste services management company at the Shoreway Recycling and Disposal Center, in part through San Mateo County Environmental Health HHW monthly drop-off appointment events in San Mateo, and in part through other collection facilities. There are several other convenient locations for drop off of HHW including:

- A mercury thermometer exchange at the South Bayside System Authority wastewater treatment plant. Fluorescent bulb recycling bins at certain lighting retailers.
- A pharmaceutical drop-box is also available at the San Carlos Police Department.
- Batteries, mobile phones and motor oil can be recycled curb-side at homes or businesses.

Some HHW, including medical wastes, asbestos, tires, and explosives are not readily disposable within San Carlos.



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### Goals, Policies, and Actions



### GOAL ESPS-5

Protect the community from the harmful effects of hazardous materials.

**Policy ESPS-5.1** Prohibit uses involving the manufacturing of hazardous materials throughout the city. Hazardous materials are defined in Chapter 6.95, Section 25501 0-1 of the Health and Safety Code. This policy applies only to the direct manufacture of hazardous substances.

### POLICIES

It does not apply to the storage or use of such materials in conjunction with permitted commercial and industrial uses.

**Policy ESPS-5.2** Require producers of and users of hazardous materials in San Carlos to conform to all local, State and federal regulations regarding the

production, disposal, and transportation of these materials.

**Policy ESPS-5.3** Mitigate hazard exposure to and from new development projects through the environmental review process, design criteria, and standards enforcement.

**Policy ESPS-5.4** Mitigate indoor air intrusion potential in areas of new development or redevelopment where the property is located above known volatile compound plumes.

**Policy ESPS-5.5** Where deemed necessary, based on the history of land use, require site assessment for hazardous and toxic soil contamination prior to approving development project applications.

**Policy ESPS-5.6** Require that new development proposals are reviewed for legally required remediation by authorities with jurisdictional authority over groundwater and surface water contamination including but not limited to San Mateo County Environmental Health, State Water Quality Control Board and the Army Corps of Engineers, where waters of the United States are involved, and collaborate with authorities to ensure all relevant remediation requirements are met.

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**Policy ESPS-5.7** Prohibit new non-residential uses that are known to release or emit toxic waste at levels that are harmful to human health while continuing to allow life science, research and development, medical, and other necessary services such as dry cleaners.

**Policy ESPS-5.8** Require the preparation of emergency response plans as part of use applications for all large generators and users of hazardous waste as required by federal law.

**Policy ESPS-5.9** Actively promote public education, research, and information dissemination on hazards materials.

**Policy ESPS-5.10** Expand community engagement on remediation. Engage community members in the remediation of toxic sites and the permitting and monitoring of potentially hazardous industrial uses.

**Policy ESPS-5.11** Encourage the use of green building practices to reduce potentially hazardous materials in construction materials.

**Action ESPS-5.1** Provide on-going training for appropriate City personnel in hazardous materials, response, and handling.

**Action ESPS-5.2** Disseminate information on proper disposal of household hazardous waste.

**Action ESPS-5.3** Coordinate with waste disposal services and other government agencies to increase the convenience of proper disposal of household hazardous waste.

**Action ESPS-5.4** Evaluate opportunities to participate in household hazardous waste collection services.

**Action ESPS-5.5** Prioritize remediation efforts and ensuring all relevant remediation requirements are met by requiring new development proposals be reviewed for legally required mediation by San Mateo County Environmental Health, State Water Quality Control Board, and the Army Corp of Engineers.

## Airport Operations

This section includes background information about the San Carlos Airport and a goal, a policy, and an action related to airport safety.

### ACTIONS

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### *Background Information*

The San Carlos Airport is located within the San Carlos city limit east of US 101, along the bay shoreline. The 160-acre airport is located on land owned by the County of San Mateo and managed by the County Public Works Department.

Private planes are the primary users of the San Carlos Airport and are utilized for both business and recreation. Due to the airport’s 2,600-foot runway, large aircraft, such as commercial jets, are not permitted to use the airport. The airport also allows private jets under 12,500 pounds to land and take off at any time, but activities such as student training are limited to daytime to meet noise abatement requirements. The airport houses around 500 aircraft and is the place of business for over 25 aviation related businesses, including a helicopter training school. Other airport services include emergency response functions such as Air-Ambulance, Medivac flights and law enforcement patrols.

The City/County Association of Governments of San Mateo County (C/CAG) serves as the State-mandated Airport Land Use Commission and is responsible for promoting land use compatibility around the County’s airports in order to minimize public exposure to excessive airport noise and safety hazards. The primary means by which this is accomplished is through the San Mateo County Comprehensive Airport/Land Use Plan (CLUP), adopted by C/CAG in 2015. The CLUP is a State mandated document that addresses airport/land use

compatibility related to proposed land use policy actions within the environs of San Carlos Airport.

### *Goals, Policies, and Actions*



**GOAL**  
**ESPS-6** Minimize risks associated with operations at the San Carlos Airport.

**Policy ESPS-6.1** Maintain land use and development in the vicinity of San Carlos Airport that are consistent with the relevant airport/land use compatibility criteria and guidelines contained in the adopted Airport/Land Use Compatibility Plan for the environs of San

### **POLICIES**

Carlos Airport, including noise, safety, height, and avigation easement requirements.

### **ACTIONS**

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**Action ESPS-6.1** Submit proposed land use policy actions (general plans/amendments, specific plans/amendments, rezonings, etc.) and related development plans, if any, that affect property located within the Area B portion of the Airport Influence Area (AIA) boundary for San Carlos Airport, to the San Mateo County Airport Land Use Commission for review/action, pursuant to California Public Utilities Code Section 21676(b), prior to final action by the City.

### **Emergency and Disaster Preparedness**

This section addresses disaster preparedness and emergency response plans in San Carlos.

#### *Background Information*

As required by State law, the City of San Carlos has established emergency preparedness procedures to respond to a variety of natural and man-made disasters that could affect the community. In the event of an emergency, the City will respond according to the Standardized Emergency Management System (SEMS) developed by the State. The SEMS system establishes a hierarchy of response, with local government as the first responders. If San Carlos does not have sufficient resources to respond to a disaster, the County of San Mateo would lend resources. Mutual Aid agreements

between various agencies would be enacted all the way to the State level.

San Carlos established an Emergency Operations Center (EOC) program in 1987. The Emergency Response Plan establishes evacuation routes, identifies agencies responsible for emergency response and summarizes and assesses potential threats and hazards. Additionally, as required by California Government Code 3100, all City employees will report to City Hall, after ensuring the welfare of their families, to assist in emergency response in the event of a disaster.

San Mateo County Sheriff's Office of Emergency Services (OES) is responsible for coordinating emergency response in the county. The OES operates under a Joint Powers Agreement with the 20 incorporated cities in the county. The Emergency Services Council, which consists of a representative from each of the 20 incorporated cities and a member of the County Board of Supervisors, governs the OES.

#### **SMC Alert**

SMC Alert is a software application used to send emergency alerts, notifications, and updates to cell phones, mobile devices, home phones, work, and/or e-mail accounts. In the event of an emergency, public safety agencies such as the City of San Carlos are able to provide emergency information directly to the community. These messages provide the community with instructions, orders, and updates.



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The SMC Alert system is managed by the San Mateo County Department of Emergency Management (DEM). The service is free to all and is available to all cities, towns, and special districts within San Mateo County. Alerts may also be sent by local fire, police, and emergency operations managers from other cities within San Mateo County. Alert types may include life safety, fire, weather, accidents involving utilities, or roadway or disaster notifications.

### Zonehaven

Zonehaven is an application that provides a common operating framework for mutual aid and evacuation planning. Zonehaven’s evacuation management platform assists emergency services and increases efficiency with seamless collaboration between fire agencies, law enforcement, Office of Emergency Services, and the community. Zonehaven’s community evacuation interface promotes safety and security by providing community members with their zone and an up-to-date evacuation status.

Zonehaven incorporates local weather conditions, geographic data, and local knowledge into simulations to provide an accurate emergency situation scenario. Using local traffic data, zones network analysis algorithms identify key intersections and choke points so emergency management agencies can define zones to reduce gridlock and enable fire and law enforcement to support evacuations more easily. In the event of an evacuation, models can be generated to enable fire and law enforcement to look ahead at what may come in the

system and the application can be switched over to training mode to run a rapid simulation that provides 1-, 3- and 5-hour predictions to provide recommendations for evacuation zone sequencing.



### GOAL ESPS-7

Continue effective emergency response procedures to ensure public safety in the event of natural or man-made disasters.

### Goals, Policies, and Actions

**Policy ESPS-7.1** Display leadership in the preparation for natural and human-made disasters by taking a proactive rather than a reactive approach.

**Policy ESPS-7.2** Preserve a Basic Emergency Operation Plan consistent with the National Incident Management System (NIMS).

### POLICIES

**Policy ESPS-7.3** Maintain City Hall as the Emergency Operations Center (EOC) in San Carlos and

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provide for fully functional back up EOC for City staff.

- Policy ESPS-7.4** Coordinate the preparation for natural and man-made disasters with the San Mateo County Office of Emergency Services, neighboring jurisdictions, and other governmental agencies.
- Policy ESPS-7.5** Inform the public about disaster preparedness by providing information on supplies, training, evacuation routes, communication systems, and shelter locations.
- Policy ESPS-7.6** Make available to the community, programs and resources relating to disaster preparedness.
- Policy ESPS-7.7** Support the efforts of neighborhood and civic organizations to prepare for disasters if City resources are not available.
- Policy ESPS-7.8** Identify and develop communication systems, evacuation methods, shelter locations and other services for special needs populations.
- Policy ESPS-7.9** Evaluate safety service limitations on an annual basis to provide for adequate levels of service.

**Policy ESPS-7.10** Identify potential emergency routes and suggest methods for operational needs for first responders.

**Policy ESPS-7.11** Establish the capability to re-locate critical emergency response facilities such as fire, police, and essential services facilities, if needed, in areas that minimize their exposure to flooding, seismic effects, fire, or explosion.

**Policy ESPS-7.12** Develop a procedure to quantify community

### ACTIONS

emergency preparedness levels.

- Action ESPS-7.1** Evaluate the Emergency Operation Plan on an annual basis and revise as needed to promote disaster preparedness.
- Action ESPS-7.2** Coordinate emergency response procedures with acute care medical facilities in San Mateo County to ensure adequate preparedness for hospital patients and staff.
- Action ESPS-7.3** Participate in regional disaster event simulations semi-annually by using the primary EOC and methods for implementing a back-up EOC.

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**Action ESPS-7.4** Create a back-up EOC for City staff. Enter into a shared EOC agreement with a neighboring jurisdiction or County in the event City Hall is rendered inoperable as an EOC.

**Action ESPS-7.5** Participate in San Mateo County OES preparedness exercises and disaster simulations.

**Action ESPS-7.6** Encourage City employees through a volunteer program to obtain training in disaster preparedness and basic first aid skills.

**Action ESPS-7.7** Maintain and enhance the community disaster preparedness programs.

**Action ESPS-7.8** Identify the need for community awareness and education programs for residents. Develop programs to respond to identified needs.

**Action ESPS-7.9** Disseminate semi-annually, disaster preparedness information to residents through the city web site, newsletters, e-notify, newspaper articles, or other methods.

**Action ESPS-7.10** Make available multi-language disaster preparedness information.

**Action ESPS-7.11** Identify and program for emergency supplies through the EOC program in public parks.

## Climate Change Resilience

This section is based on the Safety Element's accompanying Vulnerability Assessment, the San Carlos Climate Mitigation and Adaptation Plan, and the San Mateo County Multijurisdictional Local Hazard Mitigation Plan, which are incorporated by reference.

### *Background Information*

Climate change is a long-term change in the average meteorological conditions in an area. Currently, the global climate is changing due to a human-induced increase in greenhouse gas (GHG) emissions that trap heat near the Earth's surface. In San Carlos, climate change is expected to intensify existing hazards, such as sea level rise, wildfire, and drought, and increase the frequency and severity of storms and extreme heat events.

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Increasing resilience involves planning and investment to address changing climate conditions and building adaptability and flexibility into systems and infrastructure. Resilience planning requires considering how plans and investments affect people, communities, economic conditions, and natural systems – all of which work together to build resilience. Increasingly, San Carlos is viewing land use policies and tools through the lens of climate resilience to protect public health and safety.

### *Resilience*

*Resilience is the capacity of an individual, community, organization, or natural system to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience.*

*Source: California Adaptation Planning Guide (2020)*

### **Drought**

A drought occurs when conditions are drier than normal for an extended period, making less water available for people and ecosystems. As of the summer of 2022, San Carlos, as with California as a whole, is experiencing extreme drought according to the National Oceanic and Atmospheric Administration (NOAA).

Climate change is expected to cause more frequent and more intense droughts statewide. Overall, annual average precipitation levels are expected to remain similar, with more years of extreme precipitation events and droughts that last longer and are more intense.

All people, property and environments in the City would be exposed to some degree the impacts of moderate to extreme drought conditions. Drought can affect people’s health and safety, by creating health problems related to low water flows, poor water quality, or dust and prolonged heat. Water shortages or price hikes during extended drought conditions could increase economic instability of low-income residents. Drought conditions can also dry out vegetation and increase wildfire conditions, which could strain firefighting equipment and personnel and present increased hazard to the City’s western neighborhoods located in the VHFHS.

No structures will be directly affected by drought conditions. Drought causes the most significant economic impacts on industries that use water or depend on water for their business, most notably agriculture and related sectors (forestry, fisheries, and waterborne activities), power plants, and oil refineries. The aquatic habitat, wetlands, and riparian habitats that depend on water from the Pulgas, Brittan, Belmont, and Cordilleras Creeks are vulnerable to drought, which can lead to lower baseflows in streams, lower water quality, higher water temperatures, and potential wetland and riparian habitat degradation.



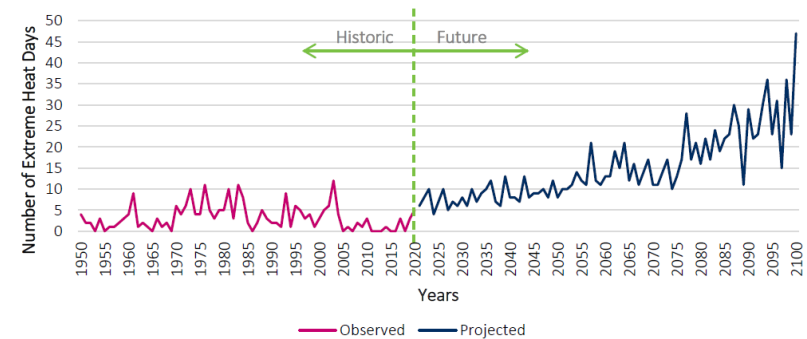
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The County of San Mateo, Bay Area Water Supply & Conservation Agency (BAWSCA), regional water purveyors, and other regional stakeholders have devoted considerable time and effort to protect life, safety, and health during times of consecutive dry years. Steps have been taken to analyze and account for anticipated water shortages. San Carlos coordinates with San Mateo County and water purveyors to minimize and reduce drought impacts on community members and water consumers. No significant life or health effects are anticipated because of drought in San Carlos.

### Extreme Heat

An extreme heat day in San Carlos occurs when air temperatures reach 94.7°F. The number of extreme heat days in San Carlos is projected to increase from 4 days per year to an average of 11 extreme heat days per year by mid-century and 22 extreme heat days per year by the end of the century (see Figure 8-14).

**Figure 8-14 Projected Extreme Heat Days in San Carlos**



Sources: Cal-Adapt, 2020, and National Oceanic and Atmospheric Administration, 2020.

Extreme heat can also occur in the form of warmer nights, as temperatures do not cool down overnight and provide relief from the heat. In San Carlos, a warm night occurs when the temperature stays above 59.5°F.

People may develop heat-related illnesses, such as heat stress, exhaustion, heat stroke, and respiratory problems, in response to a hot environment. The most vulnerable populations are those that spend a disproportionately high amount of time outside, such as children, outdoor workers, and persons experiencing homelessness, as well as those with sensitive or compromised immune systems, persons with chronic illnesses, and seniors. Households in poverty are also highly vulnerable due to a lack of financial resources to prepare for or respond to extreme heat conditions.

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### Vulnerability

Vulnerability is the exposure of human life and property to damage from natural and human-made hazards. Climate vulnerability describes the degree to which natural, built, and human systems are at risk of exposure to climate change impacts.

Differences in exposure, sensitivity, and capacity to adapt affect an individual's or community's vulnerability to climate change. Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s).

Vulnerability is considered a function of exposure, sensitivity, and adaptive capacity.

Source: California Adaptation Planning Guide (2020)

Energy delivery services and associated infrastructure are highly vulnerable to extreme heat, as high temperatures can stress and overload the grid, causing power outages and damage to the transmission lines. Additional vulnerabilities include outdoor recreation, as people may be deterred from recreating outdoors in high temperatures, and aquatic and

wetland habitats, which can experience decreases in water quality as temperatures increase.

Adaptation solutions to heat include community sites serving as cooling centers, urban forestry programs, adding tree cover to transit stations, adopting building codes to address rising heat, and battery backups to address power shutoffs.

### Severe Weather

Severe weather includes windstorms, hail, lightning, thunderstorms, and heavy rainfall. Severe weather is usually caused by intense storm systems, although types of strong winds can occur without a storm. New evidence suggests that severe storms may occur more often and become more intense than in the past because of climate change. Severe winds can damage or destroy buildings and infrastructure. Hail can damage buildings and plants, and lightning can spark fires, injure people, or cause fatalities. Heavy rainfall can lead to flooding in both the eastern and western portions of San Carlos. Strong winds and heavy rainfall are the most common types of severe weather in the San Carlos.

The most vulnerable to severe weather are persons experiencing homelessness; those who may live in less structurally resilient buildings, such as households in poverty and undocumented persons; and those who may have difficulty preparing or responding to severe weather due to mobility or language barriers. These populations include linguistically isolated populations, persons living on single-

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access roads, persons with chronic illnesses, and seniors living alone.

The energy delivery system is especially vulnerable to windstorms, which can damage transmission lines or cause public safety power shutoffs (PSPS). Windstorms can also damage warehouses that hold harmful materials and prevent people from traveling to work, which can harm important economic drivers within the city.

Severe local storms are likely the most common widespread hazard in the city. They affect large numbers of residents when they occur and could overwhelm City and County resources.

Measures can be taken to mitigate the effects of severe weather. Critical facilities can be hardened to prevent damage during an event. The secondary effect of flooding can be addressed through decreasing runoff and water velocity. Debris, including downed trees, can be removed promptly and forested areas can be managed to reduce debris impacts. Public education can inform community members how to prepare for severe weather events.

### **Sea Level Rise**

As global temperatures heat up, glaciers and other land ice near the north and south poles melt. The water flows into the ocean, increasing sea levels across the globe. Higher temperatures also cause water to expand in oceans, causing further rising of sea levels. Sea level rise is a gradual process,

taking place over years or decades. In California, guidance suggests that sea levels will increase in most places by 6 to 10 inches by 2030, 13 to 23 inches by 2050, and 41 to 83 inches by 2100. However, it is possible that sea levels could rise faster than these projections. Along the San Carlos Bay shoreline, sea levels are projected to rise approximately 24 inches by 2050 and 84 inches by 2100. Figures 8-15 and 8-16 show projected sea level rise along the Bayshore in San Carlos in 2050 and 2100.

Eventually, sea level may increase enough to permanently flood low-lying areas in the eastern part of San Carlos along the bayshore. Sea level rise threatens important buildings and key pieces of infrastructure that support the main economic drivers in San Carlos, such as Highway 101, the San Carlos Airport, the Hiller Aviation Museum, the Shoreway Environmental Center (solid waste transfer station), and the Silicon Valley Clean Water Wastewater Treatment Plant in Redwood City.

Flooding from sea level rise can damage building foundations, cause bridges and roadways to become impassable, flood control infrastructures to not work effectively, and hazardous material facilities to increase the risk of accidentally releasing harmful substances.

Natural systems, such as wetlands and tidal marshes, will be disrupted by higher tide levels. Many of the tidal marshes in eastern San Carlos are expected to convert to another habitat

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type, a process called "downshifting," which will lead to different plant and animal species, and some features of wetlands may be altered or lost. The current sea level rise projections would result in much of the existing wetlands along the San Carlos Bay shoreline being completely underwater and lost as habitat for wetland plants and animals sometime between 2050 and 2100.

Rising sea levels can also cause the bay shoreline to flood more frequently and severely, particularly during storm events when creeks and sloughs are discharging stormwater into the Bay. Because ocean levels are higher during normal conditions due to sea level rise, shoreline floods from king tides and storm surges, can reach further onto land. For example, a storm that has a 1 in 10 chance of occurring in a given year (known as a 10-year storm), can create a temporary increase in sea levels of approximately 28 to 30 inches. This means that if sea levels rise by 24 inches during normal conditions, a 10-year storm event would create a temporary sea level rise of around 52 inches. Sea level rise and bayshore flooding in 2050 and 2100 is shown in Figures 8-15 and 8-16. Higher sea levels can also give a "boost" to smaller floods that would not have been large enough to flood dry land during normal conditions, making shoreline flooding more frequent.

In addition to contributing to increased overland flooding, sea level rise can lead to the intrusion of salt water into groundwater aquifers, causing shallow groundwater tables to rise. This phenomenon can in turn cause ponding of water or

flooding in low lying areas with little to no past flooding occurrences; infiltrate underground water, sanitary sewer, and storm drain pipelines; increase soil liquefaction risk during seismic events; and remobilize old soil contaminants. This effect of sea level rise has been studied less in coastal communities compared to increased overland flooding.

Several populations and assets face particularly high risks from flooding events exacerbated by sea level rise. Persons experiencing homelessness, households in poverty, and linguistically isolated persons are more vulnerable to the effects of flooding, as they may live in or near flood hazard areas, lack financial resources to protect their homes, or have difficulty receiving adequate evacuation notices because of language barriers. Persons with limited mobility and those without access to lifelines (persons without access to a car, transit, or communication systems) may have difficulty evacuating prior to a flooding event, and therefore are also highly vulnerable.

Buildings and facilities at risk of damage from sea level rise and increased flooding are shown in Figure 8-17.

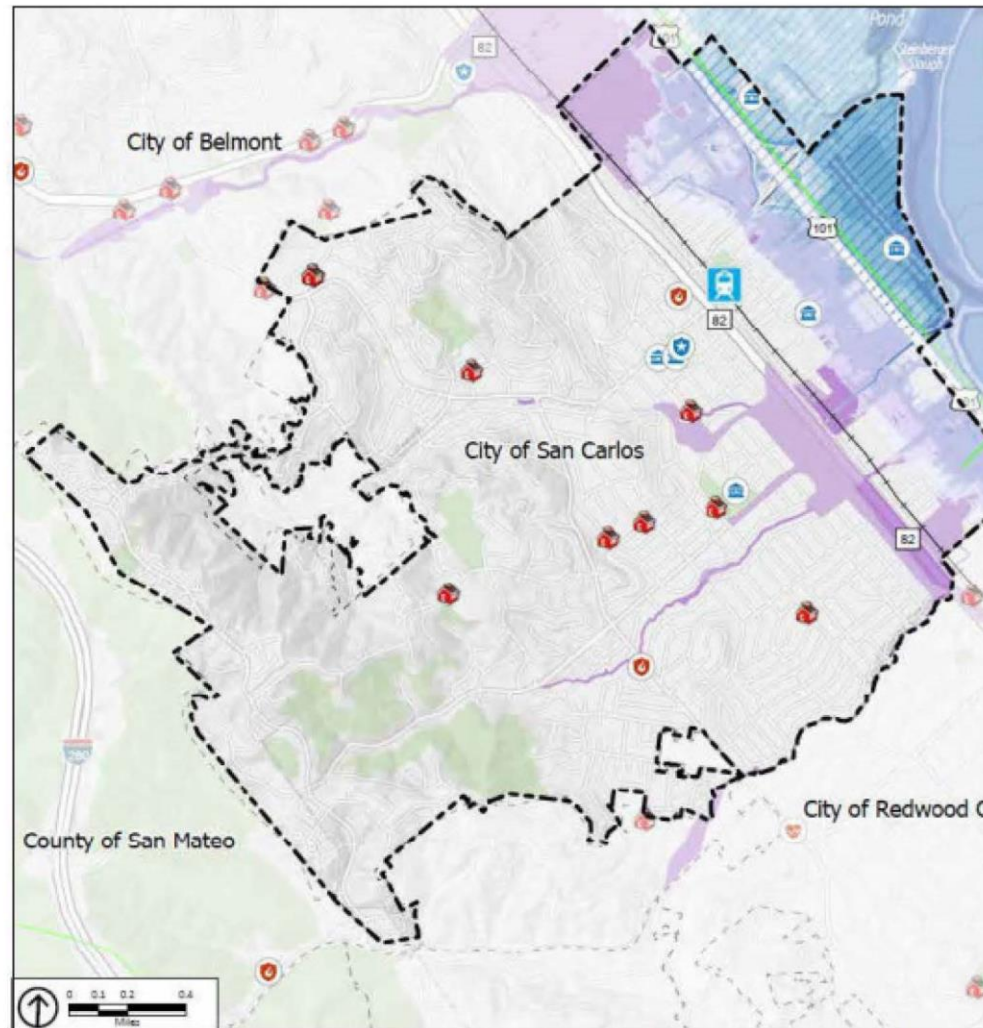


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FIGURE 8-15

Sea Level Rise  
2050

- City Boundary
  - Parks and Open Space
  - Caltrain Line
  - Electrical Transmission Lines
  - Caltrain Station
  - Schools
  - Community Facilities
  - Fire Stations
  - Police Stations
  - Hospitals
- Bayshore Flooding 2050**  
Depth in Feet
- 0 - 2
  - 2 - 4
  - 4 - 6
  - 6 - 8
  - 8 - 10
  - 10 - 12
  - 12+
- FEMA Flood Hazard Zones**
- 100 year
  - 500 year
  - Levee Protected



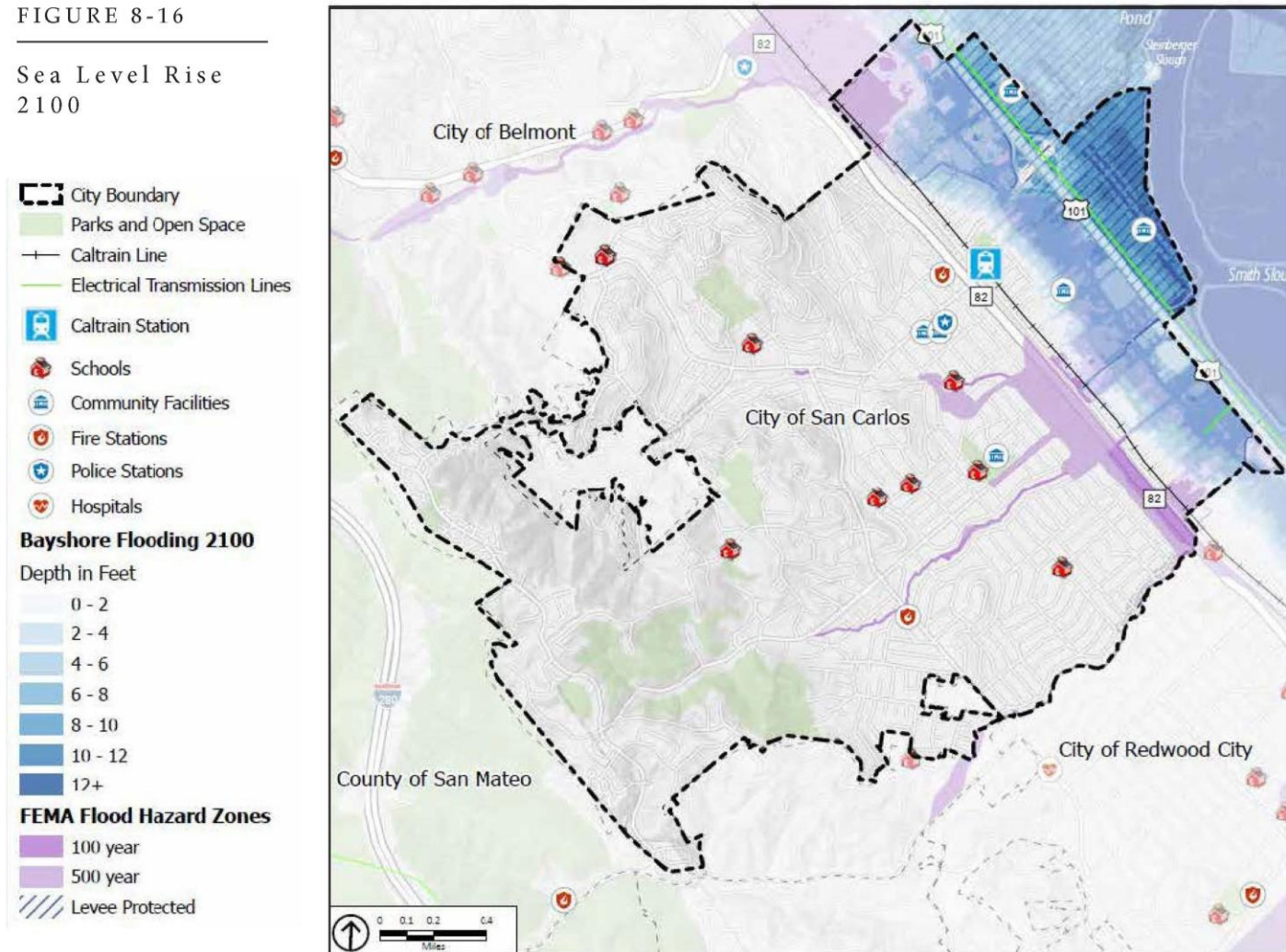
Source: San Francisco Bay Conservation and Development Commission, 2017; Federal Emergency Management Agency, 2018; San Carlos Climate Mitigation and Adaptation Plan (CMAP) (2021)

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FIGURE 8-16

Sea Level Rise  
2100



Source: San Francisco Bay Conservation and Development Commission, 2017; Federal Emergency Management Agency, 2018;



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FIGURE 8-17

At Risk due to Sea Level Rise

Risks

- 1% Annual Chance (100-year flood)
- 0.2% Annual Chance (500-year flood)
- 24" Sea Level Rise +5-year Storm

Infrastructure

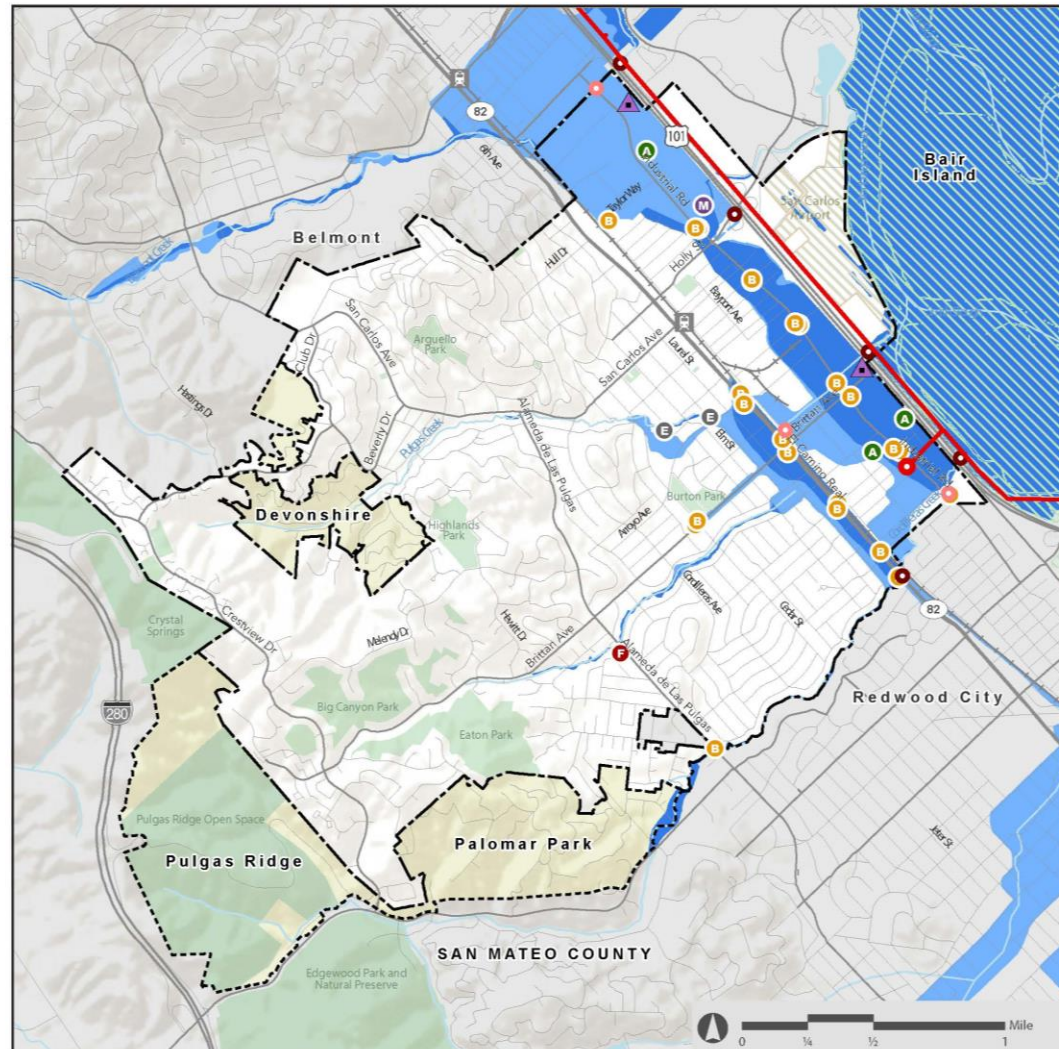
- Railway Stops
- Microwave Tower
- Electrical Substation
- Transmission Line

Transportation Facilities and Infrastructure

- Local Bridges
- Highway Bridges
- Alternative Energy Fueling Stations
- Alternative Energy Fueling Stations

At Risk Buildings and Facilities

- Fire Station
- Medical Facility
- Emergency Shelter



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### Goals, Policies, and Actions



#### GOAL ESPS-8

A community that is resilient against changing climate conditions.

#### POLICIES

- Policy ESPS-8.1** Ensure that new structures and substantial retrofits are planned and designed to accommodate extreme weather events.
- Policy ESPS-8.2** Facilitate retrofitting existing structures to accommodate extreme weather events.
- Policy ESPS-8.3** Ensure consistent climate change resilience strategies between City of San Carlos' plans and across department implementation programs; other public agencies; and through local and regional partnerships.
- Policy ESPS-8.4** Continuously improve resilience planning and stay up to date on best practices, including outreach efforts, emphasizing

outreach to non-English speaking, lower-income, and other vulnerable populations.

- Policy ESPS-8.5** Support emergency service providers and critical facilities' operations and adequate response times should hazard events increase in frequency and severity.

#### ACTIONS

- Action ESPS-8.1** Evaluate and amend, if necessary, City of San Carlos building codes, zoning ordinance, and other development standards to ensure site planning, building design, and construction materials for new development and substantial retrofits accommodate extreme weather events. Regularly review and update the City's codes, zoning ordinance, and development standards to align with best practices.
- Action ESPS-8.2** Share information about existing energy efficiency and weatherization programs, including BayREN, San Mateo County Energy Watch, HomeIntel, and CaliforniaFIRST, to encourage private home and business retrofits to reduce energy demand, make buildings safer to shelter in,



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and make buildings more resilient during power outages.

**Action ESPS-8.3** Develop and share a building retrofit guide for extreme heat that includes guidance on:

- Adaptive measures, such as shading, adequate ventilation and green or white roofs.
- Insulating and improving the air tightness of buildings to increase resilience against extreme cold and heat.
- Using passive cooling and energy efficiency design requirements or allowing manual overrides (e.g., openable windows) when mechanical elements are in place to increase resilience, especially in the event of power outages.

**Action ESPS-8.4** Work with providers of existing weatherization programs to identify opportunities for additional funding and other support services that could help provide assistance and resources for economically disadvantaged residents to adapt their properties to climate change hazards.

**Action ESPS-8.5** Review and update as necessary the Climate Mitigation and Adaptation Plan and the Safety Element concurrently, in tandem with the Housing Element Update, to increase efficiency and improve implementation.

**Action ESPS-8.6** Periodically, review and update the General Plan as necessary to incorporate new or revised climate change resilience strategies.

**Action ESPS-8.7** Develop a climate change-specific outreach program to inform community members how to prepare for, withstand, and recover after climate hazard events. Incorporate methods to overcome language, technological, and other barriers in reaching vulnerable communities.

**Action ESPS-8.8** Develop and maintain an emergency notification system (e.g., SMC Alert) for the most vulnerable community members before, during, and after a climate hazard event and assist in their evacuation, if needed. This includes coordination with the San Mateo County OneShoreline program on its early flood warning notification system.

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**Action ESPS-8.9** Regularly update and supply the latest technical information to emergency service providers and critical facility operators to assist in their planning for and provision of services.

**Action ESPS-8.10** Collaborate with communication providers to promote the installation of additional or upgraded facilities, if needed, to reduce the occurrence of coverage gaps and service outages, especially for facilities providing essential services.



### GOAL ESPS-9

The City of San Carlos has a sustainable and resilient water supply despite the potential for more frequent and severe drought conditions.

### POLICIES

**Policy ESPS-9.1** Support Cal Water’s efforts to increase water storage capacity and water supply reliability, including meeting fire flow requirements.

**Policy ESPS-9.2** Support and partner with Cal Water’s efforts to achieve water demand reductions of 10 percent below State requirements to reduce future constraints during droughts.

### ACTIONS

**Action ESPS-9.1** Support Cal Water’s efforts to construct additional water storage tanks within City limits, if needed.

**Action ESPS-9.2** Upgrade City waste and wastewater systems to accommodate projected drought-induced changes in water quality and availability and insure long-term integrity of water supplies.

**Action ESPS-9.3** Partner with Cal Water to increase customer participation in water conservation programs to reduce water use throughout San Carlos.

**Action ESPS-9.4** Require all new development, reconstruction, and remodel projects to install water saving infrastructure and systems minimizing water use.

**Action ESPS-9.5** Require public and private development projects to design sites, buildings, and

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

## ELEMENT

structures that minimize water use and increase water recycling.

**Action ESPS-9.6** Develop a San Carlos' Recycled Water program to nonresidential users.

**Action ESPS-9.7** Consider extending the recycled water pipes from Redwood City into East San Carlos.

**Action ESPS-9.8** Determine best methods to use recycled water to irrigate San Carlos public parks, medians, and other publicly owned landscaped areas.



### GOAL ESPS-10

A community that is resilient during and after extreme heat and severe weather events.

## POLICIES

**Policy ESPS-10.1** Provide San Carlos residents and businesses with information about climate change hazards, extreme heat, and severe weather events. Information should include technical information, preparation guidance, and public service availability.

**Policy ESPS-10.2** Ensure the provision of emergency shelter or cooling centers/hubs for the San Carlos community.

**Policy ESPS-10.3** The City of San Carlos will take steps to ensure that all residents can access emergency centers.

**Policy ESPS-10.4** Improve utility and transportation infrastructure, if needed, to ensure functionality during and following extreme heat and severe weather events, which may bring extreme precipitation and flooding.

## ACTIONS

**Action ESPS-10.1** Consider establishing resilience cooling centers/hubs where community members can obtain information on how to prepare for

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES



## ELEMENT

climate change hazards and/or receive services (e.g., water, food, bed, charging stations, and clean air) during extreme heat and severe weather events. This includes:

- Identifying public facilities, such as community centers, libraries, and schools where cooling centers and resilience hubs can be co-located to support vulnerable communities;
- Identifying possible partners, including business owners, property owners, religious and civic organizations, emergency service agencies, and others who may be able to contribute privately-owned space to create pop-up cooling centers to cover gaps in coverage of public-owned cooling centers. Update the contact lists annually.
- Setting and publishing standardized temperature or air quality triggers for when cooling centers and resilience hubs will open; and
- Tracking and monitoring cooling center and locations' usage related to extreme heat events, power loss, and public safety power

shutoff events; and install back-up power prioritizing solar and batteries.

**Action ESPS-10.2** Consider publishing emergency supply lists and other preparation information and distribute to local civic and social organizations, service providers, and via City information outlets.

**Action ESPS-10.3** Identify ways for individuals with limited mobility to reach cooling centers and resilience hubs prior to or during hazard events. Work with transportation providers to ensure public transportation is provided during the hazard events.

**Action ESPS-10.4** Establish an environmental reverse calling center or continue to participate in the San Mateo County (SMC) ALERT emergency alert system. If participating in the SMC ALERT system, ensure that the system will provide information to all residents, including those who have not registered, and ensure that the alerts include fire, flooding, temperature (excessive cold or heat), earthquake, and severe weather events. Ensure the SMC ALERT system provides information regarding the locations of emergency shelters, cooling



# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

## ELEMENT

centers, and emergency services. Develop outreach strategies to reach individuals not registered with the SMC ALERT system.

**Action ESPS-10.5** Work with responsible agencies to ensure the design and construction of utility infrastructure, including water supply, wastewater, and storm drain lines, and transportation infrastructure, including streets, trails, shared-use paths, and rail lines, can withstand projected increases in extreme precipitation and storm events.

**Action ESPS-10.6** Identify and address deficiencies in existing utility and transportation infrastructure that may fail or suffer severe damage during extreme precipitation, flooding, and storm events.



### GOAL ESPS-11

A community that is protected against sea level rise and safeguards the natural and built environment from inundation due to rising sea levels

## POLICIES

**Policy ESPS-11.1** Coordinate with State, regional, and local agencies, including the City/County Association of Governments of San Mateo County, the Bay Conservation and Development Commission, and the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline) on planning for sea level rise and developing response options, including a regionally coordinated sea level rise adaptation plan. Consider participating in partnerships that can provide technical assistance and potential funding for sea level rise resiliency planning.

**Policy ESPS-11.2** Continue to work with appropriate local, State, and federal agencies (such as FEMA, San Mateo County OneShoreline Program, City/County Association of Governments (CCAG) of San Mateo County, and San Francisco Bay Conservation and Development Commission (BCDC) to maintain the most recent sea level rise mapping and information and use it as a basis for project review.

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES



## ELEMENT

**Policy ESPS-11.3** Encourage the use of environmentally sensitive sea level rise adaptation strategies through the recognition of long-term habitat and biodiversity values.

**Policy ESPS-11.4** Provide protection to or relocate critical facilities in the sea level rise zone to prevent damage from inundation.

**Policy ESPS-11.5** Integrate sea level rise planning into City processes.

**Policy ESPS-11.6** Ensure all new development and substantial retrofit projects are planned and designed to accommodate increases in sea level rise.

## ACTIONS

**Action ESPS-11.1** Consistent with State recommendations and OneShoreline, identify mid-century and end of century sea level rise projections that would be consistently used by the city in planning efforts and to evaluate all private and public development applications to ensure projects in sea level rise inundation zones are protected from inundation over the life of the project. OneShoreline's standard for its shoreline project is to

protect against the FEMA 100-year storm, plus six feet of sea level rise.

**Action ESPS-11.2** Continue to review and use current and best available sea level rise science and projections and regularly identify natural resources, development, infrastructure, and communities that are vulnerable to sea level rise impacts. Use this information to continue to develop or adjust planning and adaptation strategies.

**Action ESPS-11.3** Seek funding sources and collaborate with local and regional public and private entities that can assist communities and businesses with technical assistance and potential funding for sea level rise resiliency planning. Technical assistance may include supporting business resiliency through preparedness education, trainings, and resources to protect properties from the effects of sea level rise.

**Action ESPS-11.4** Identify City staff who will be responsible for leading the City's sea level rise planning efforts, coordinating with outside agencies, and coordinating with City departments on preparing and planning for sea level rise.

## ELEMENT

**Action ESPS-11.5** Cooperate with FEMA in its efforts to incorporate predictions of sea level rise in its Flood Insurance Studies and Flood Insurance Rate Maps (FIRM).

**Action ESPS-11.6** Incorporate the most current sea level rise mapping into the City's geographic information system to identify areas at risk of increased flooding from sea level rise.

**Action ESPS-11.7** In coordination with OneShoreline, regional planning efforts, and State guidance, sea level rise adaptation strategies should use or restore natural features and ecosystem processes where feasible and appropriate as a preferred approach to the placement of hard shoreline protection. This includes systems and practices that use or mimic natural processes, such as permeable pavements, bioswales, and other engineered systems, such as levees that are combined with restored natural systems, to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife.

**Action ESPS-11.8** Existing shoreline or creek bank protective devices should be removed when the structure(s) requiring protection are

redeveloped, removed, or no longer require a protective device.

**Action ESPS-11.9** Incorporate sea level rise in the development of watershed management plans and flood control infrastructure with a focus on nature based solutions.

**Action ESPS-11.10** Advocate, with State and federal resource agencies, for new policies and implementation programs that make living shoreline projects more feasible.

**Action ESPS-11.11** Identify critical facilities and City-owned buildings and infrastructure – including roads, trails, parks, and other public access and recreation facilities - in hazard-prone areas and work to site, design, and upgrade these facilities with consideration for hazards from sea level rise and storm surges that may occur over the anticipated life of the development. In cases where facilities cannot be substantially maintained, relocation should be evaluated. Where facilities can be safely sited for the near term, but future impacts are likely, require an adaptive management plan detailing steps for maintenance, retrofitting and/or relocation.

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

## ELEMENT

**Action ESPS-11.12** Include sea level rise and adaptation planning in other City planning documents. Coordinate future updates of the Safety Element with the Climate Mitigation Action Plan and the City’s Hazard Mitigation Action Plan as specified in the San Mateo County Multi-Jurisdictional Local Hazard Mitigation Plan, Volume II.

**Action ESPS-11.13** Actively coordinate with San Mateo County and OneShoreline to implement proposed mitigation actions related to sea level rise outlined in the San Mateo County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP). Implement the City’s Hazard Mitigation Action Plan as specified in the LHMP, Volume II.

**Action ESPS-11.14** Regularly review and update the City’s municipal code and building code requirements for projects in a sea level rise inundation zone to ensure projects adequately account for sea level projections.

**Action ESPS-11.15** Ensure the development application process reflects the City’s sea level rise planning requirements.

**Action ESPS-11.16** Actively promote public education, research, information dissemination, and mitigation options on flooding hazards to the community including neighborhood associations, realtors, community-based organizations, and property owners in areas subject to increased flooding due to sea level rise.



**GOAL**  
**ESPS-12**

A community protected against rising groundwater levels caused by sea level rise.

### POLICIES

**Policy ESPS-12.1** Study the effects of rising groundwater on people and the built environment.

**Policy ESPS-12.2** Ensure the San Carlos municipal code protects development from rising



# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES



## ELEMENT

groundwater levels. This may include measures to protect underground utilities from constant submersion, the construction of building foundations and roadbeds in saturated soils, the protection of underground structures, and the management of groundwater dewatered during construction.

### ACTIONS

**Action ESPS-12.1** Coordinate with OneShoreline local jurisdictions, regional, and state agencies to study sea level rise's potential impacts on rising groundwater levels. The study could consider the impacts of rising groundwater levels on:

- Saltwater intrusion into near shore groundwater aquifers
- Overland flooding
- Underground utility infrastructure and underground structures
- Increased soil liquefaction and subsidence risk; and

- Movement or transport of toxic or hazardous materials at old contamination sites

**Action ESPS-12.2** Continue to enforce the San Carlos Municipal Code requirements for development in areas of rising groundwater. Regularly update San Carlos' policies and codes to reflect the most recent technical and building/safety studies' findings regarding groundwater levels.

## Public Services

### Existing Public Services

#### *Background Information*

This section addresses schools, police service, fire service and libraries in San Carlos.

#### **Adult Community and Youth Center**

The Adult Community Center (ACC)/Senior Services provides a wide variety of classes, programs, activities, and services to promote healthy lifestyles, lifelong learning, and independence for adults 50 and over. The ACC is also available for private rental. The Youth Center is a recreation facility at Burton Park. Primarily used for youth and teen activities, the Youth Center is also programmed for adult use when not in use by youth. The facility includes a full-size

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES



## ELEMENT

Gymnasium, Game Room, lounge room, Learning Kitchen, Multi-use Studio and computer-equipped Homework Center.

### Schools

Two school districts serve San Carlos students, the San Carlos School District and the Sequoia Union High School District (Figure 8-18).

*San Carlos School District.* The San Carlos School District (SCSD) administers elementary and middle school services within the City of San Carlos. There are four elementary schools, two upper elementary schools, two middle schools and a charter school within the city limit. The schools include:

- Arundel School (K-3)
- Brittan Acres School (K-3)
- Heather School (K-3)
- White Oaks School (K-3)
- Arroyo School (4-5)
- Mariposa School (4-5)
- Central Middle School (6-8)
- Tierra Linda Middle School (6-8)
- San Carlos Charter Learning Center (K-8)

Revenues for public schools are provided from Local Control funding formula, federal and state funds and the remainder from local funding such as parcel tax funds and other monies donated by the San Carlos Education Foundation and PTAs.

*Sequoia Union High School District.* San Carlos high school students attend schools in Belmont and Redwood City; these schools are under the jurisdiction of the Sequoia Union High School District (SUHSD). Students attend either the Carlmont High School or Sequoia High School. The Sequoia Union High School District serves about 8,000 Midpeninsula students in four comprehensive high schools and one continuation high school, and in other specialized services and programs. Funding for the SUHSD comes from the Revenue Limit funding, federal funds, and from State and local funds.

*Private Schools.* There are two private schools in San Carlos. St. Charles School is a K-8 Catholic school located at 850 Tamarack Avenue. West Bay High School is a non-profit high school for transitional students. The high school is based on an independent study program with the option of weekly personalized class time.

*Adult Education.* The City Parks and Recreation Department offers a variety of arts, fitness and sports, music, cooking, language, computer, and gardening classes for adult residents. The San Mateo Community College District also offers adult education courses. The district includes three community colleges: Cañada College in Redwood City, College of San Mateo in San Mateo and Skyline College in San Bruno. Students can obtain an Associate in Arts or Sciences, participate in vocational programs, or receive a Certificate of Proficiency in a chosen field.

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES



## ELEMENT

### **Police**

On November 1, 2010, the City of San Carlos began contracting Police Services with the San Mateo County Sheriff's Office. Under the direction of the Chief of Police (a Sheriff's Captain), Police Services consists of 26 employees of the San Mateo County Sheriff's Office and 6 Communications Officers from the San Mateo County Public Safety Communications Office. In addition, the full resources of the San Mateo County Sheriff's Office support all aspects of police operations in San Carlos. San Carlos is one of the safest cities in the Bay Area, with the Police Services preventing and suppressing crime, providing timely and effective services to the community, and coordinating important community outreach activities to enhance safety and security. The Sheriff's Office service areas are shown in Figure 8-19.

### **Fire**

The San Carlos/Redwood City Fire Department provides fire and emergency response services to the cities of San Carlos and Redwood City, the unincorporated portion of the Harbor Industrial Area and unincorporated portions within San Carlos. The San Carlos and Redwood City Fire Department is responsible for fire response, advanced life support (ALS) and paramedic response and hazardous material response for San Carlos. In addition, the Fire Department is also responsible for other services such as plan checks, fire prevention and fire hydrant testing. The transportation component of ALS

services is contracted out to American Medical Response (AMR) through the County of San Mateo.

As shown in Figure 8-20, there are two fire stations within the city. Fire Station 13, located on Laurel Street, was built in 1995. A new fire station was constructed to replace Fire Station #16, located on Alameda de las Pulgas, in 2023. Together, these two fire stations provide emergency response services to San Carlos residents.

### **Library**

The San Carlos branch of the San Mateo County library system is located at 610 Elm Street. In addition to book circulation, the library offers child, adult, and family programming and also has computer work stations that are available for public use. The library also has conference rooms that may be reserved. Funding for the library comes from the County Library Joint Powers Authority, which is comprised of the cities of Atherton, Belmont, Brisbane, East Palo Alto, Foster City, Half Moon Bay, Millbrae, Pacifica, Portola Valley, San Carlos, and Woodside, as well as unincorporated areas of the County of San Mateo. San Mateo County provides staffing and materials, and the individual cities are responsible for the buildings and maintenance.

### **Childcare Facilities**

There are 24 registered childcare facilities in San Carlos, and 12 family childcare homes. These childcare facilities offer

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## ELEMENT

services for a range of ages starting with infants and continuing through grade school..

### **Community Building Activities**

Numerous civic organizations sponsor events that help to build community in San Carlos. Some of these organizations and events are described below.

*Sister Cities.* San Carlos currently has two sister cities: Okotoks, Canada; and Metepec, Mexico. The purpose of a sister city relationship is to encourage a global perspective among the people, institutions and businesses of San Carlos and to create a forum for fellowship between San Carlos residents and the residents of sister cities.

*Week of the Family.* The city celebrates the annual Week of the Family during the first week of January. Hundreds of families take part in a number of free activities to celebrate and strengthen the values of a family centered community. The goals of the Week of the Family are to strengthen family relationships, provide families with tools that help families function, promote family life, educate families on the roles and responsibilities of family members and honor and pay tribute to families in San Carlos.

*Non-Profits and Volunteerism.* San Carlos residents support community in a broad array of associations, community groups, service clubs, faith based organizations, neighborhood associations and through other means. This community

support and volunteerism significantly enhances the City's sense of community.

*Community Theater.* There are several community theater activities to promote local involvement in the arts. The Kiwanis Show and Chicken's Ball are Bi-annual events that are developed, created and cast by local community members for local fundraising charters. The San Carlos Children's Theater conducts classes and workshops throughout the year, with local youth participating as actors, crew members and creative teams. The Children's Theater performs four or five major productions at local schools sites each year.

*Summer Concert Series.* Summer Concert Series is held in Burton Park each summer. These concerts help to build community by providing a family-friendly environment where San Carlos residents can congregate and enjoy music in a public setting. Local businesses and interest groups can demonstrate their civic commitment by sponsoring concerts.

*San Carlos Together.* San Carlos Together is a citizens' group dedicated to building community by bringing people who live and work in San Carlos together to socialize, share ideas and volunteer their services for a better community.

*San Carlos Villagers.* The San Carlos Villagers were formed in April 1949 to preserve the history of San Carlos. The goal was to collect documents, photos and memorabilia that reflected San Carlos' rich background and safeguard it for the future. The City Council appointed the Villagers as docents for the



# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES



## ELEMENT

Museum of San Carlos in 1981, after the San Carlos Lions Club gifted the renovated Museum Building to the city. The Villagers compile, collect and assemble letters, photographs, personal articles, and relics of historical interest detailing the city's heritage.

*Hometown Days.* Hometown Days was originally sponsored by a group of dedicated volunteers to promote a sense of community spirit in San Carlos. The City of San Carlos took on even operations and management in 2022. This event brings the community together and provides an opportunity for schools, service clubs, local businesses, and other organizations to connect with residents. Hometown Days typically includes a parade through downtown San Carlos followed by a festival, pancake breakfast and fun run at Burton Park, where families enjoy games, food, local arts and crafts, and entertainment.

*Art and Wine Faire.* The City of San Carlos hosts the Art and Wine Faire one weekend every October. Held in the central core of downtown Laurel Street and San Carlos Avenue, the event features juried art and crafts by Pacific Fine Arts Association. San Carlos residents, business owners, vendors, and sponsors participate in the two-day event, typically attended by more than 75,000 people. A variety of gourmet food, beverages, family activities and music adds to the festive atmosphere.

*Sunday Farmers' Market.* The San Carlos Farmers' Market occurs weekly on Laurel Street in Downtown San Carlos. In 2021 the City took on the operations and management of the market and features a variety of produce, flowers and specialty food vendors set up on Laurel Street, which is closed to traffic. Visitors also can enjoy live music during the Farmers' Market.

*Goblin Walk.* The City hosted the first Goblin Walk in 2009 to provide a safe location for young children to trick-or-treat down Laurel Street. A success from its launch, the Goblin Walk turned into a community-wide event where San Carlans and neighboring community members would dress in costume and parade up and down Laurel Street. Businesses generously hand out candy to the children while residents dine on outdoor tables to witness the parade of costumes. Goblin Walk occurs on the last Friday of October.

*Night of Holiday Lights.* Night of Holiday Lights evolved from the City's annual tree lighting ceremony to a downtown event extravaganza. More than 5,000 community members stroll downtown listening to festive carolers, watch the engaging holiday stage show and wait for snow to fall on Laurel Street. Located on the 600 & 700 blocks of Laurel Street, there are craft booths, carnival rides and holiday entertainment. Many residents dine and shop downtown during extended holiday hours.

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES



## ELEMENT

*Movies in the Park.* Warm summer nights are best when spent with friends and family, and Movies in the Park give residents the perfect way to gather in a casual setting for a movie under the stars. Attendees bring picnic blankets and snacks, then settle in at Burton Park’s Flanagan Field to wait for the evening’s film to begin at sundown.

*Block Party.* What better way to gather with neighbors than by hosting a community block party? The San Carlos Block Party brings the feel of a neighborhood get-together downtown. San Carlans pick up takeout from their favorite downtown restaurants, dine al fresco at tables along Laurel Street, and listen to music while playing lawn games and sipping beer and wine served by the Parks & Recreation Foundation of San Carlos.

*Community Pride Event.* In celebration of the city’s commitment to unity and diversity, San Carlos residents fill Burton Park to listen to music and hear from speakers during the Pride in the Park event in June. LGBTQ+ vendors and inclusive community organizations host informational booths, and attendees play lawn games and contribute to communal art projects during this afternoon event.

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

## ELEMENT

FIGURE 8-18

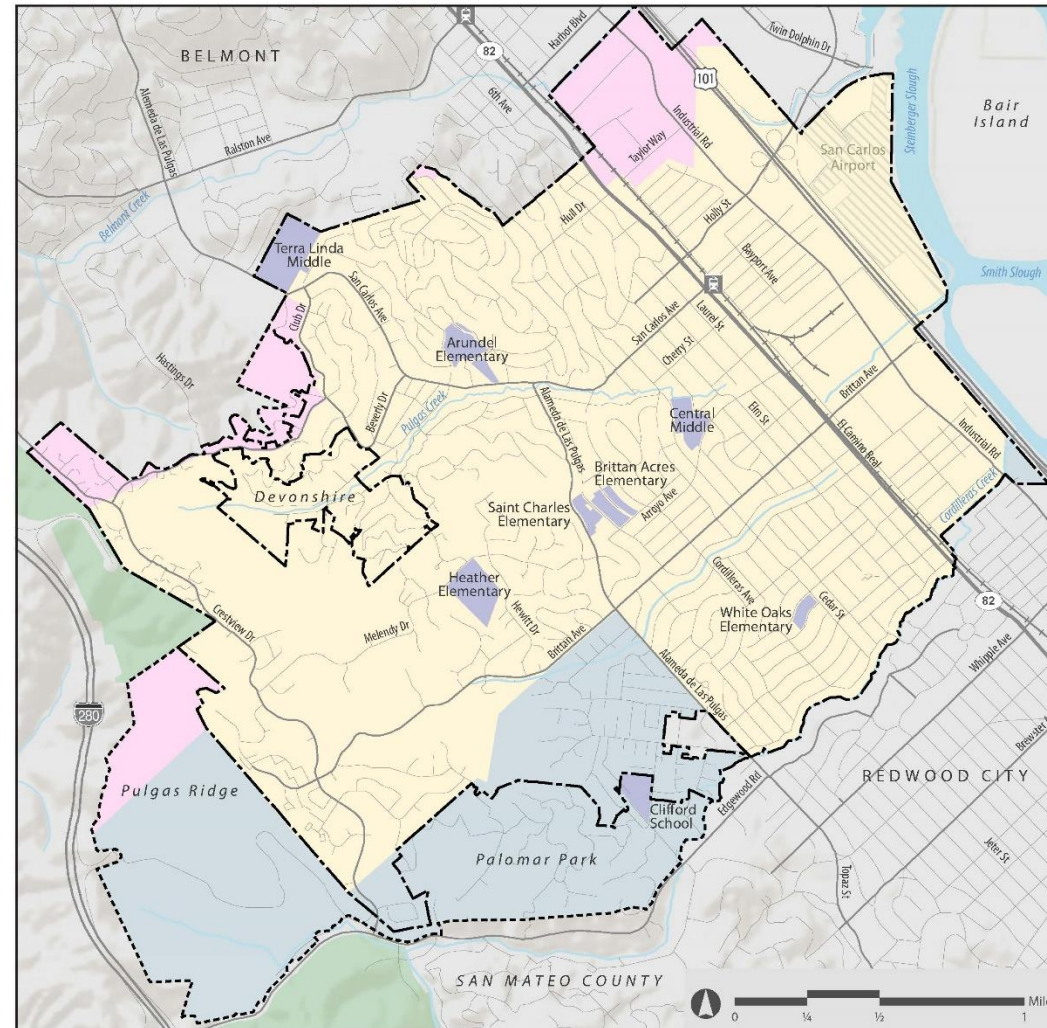
### Elementary School Districts

**Elementary School Districts**

- Belmont-Redwood Shores
- Redwood City
- San Carlos
- Schools (K-8)

**Base Map Features**

- City of San Carlos Boundary
- Sphere of Influence
- Major Streets
- Streets
- Caltrain Railroad and Stations
- Surrounding Jurisdictions
- Parks and Open Space
- Waterbodies
- San Carlos Airport



August 2020  
Sources: FEMA, 2016; United States Census Bureau, 2019; City of San Carlos, County of San Mateo, Urban Footprint, 2020.



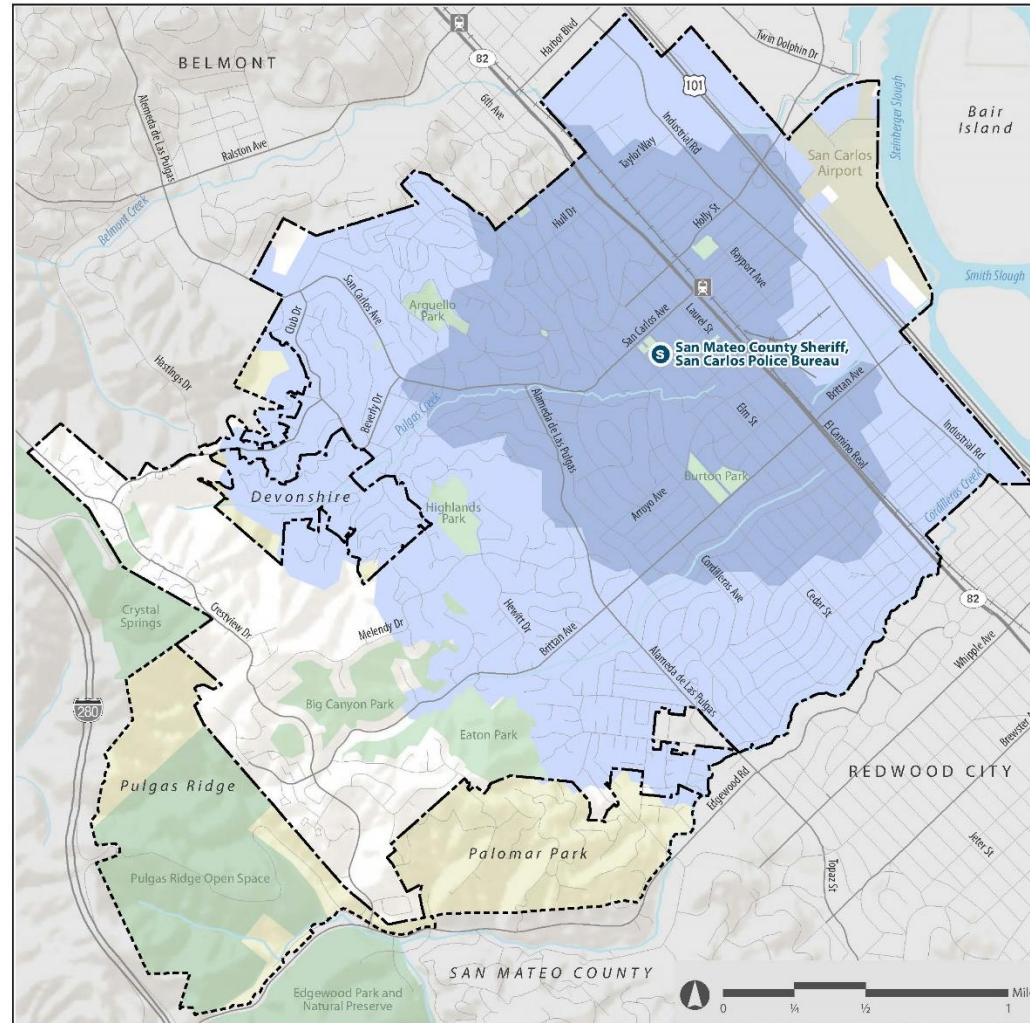
# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

## ELEMENT

FIGURE 8-19

### Sheriff Station Service Areas

- Sheriff Service Areas**
- Within One-Mile Driving Distance
  - Within Two-Mile Driving Distance
  - S Sheriff Station
- Base Map Features**
- City of San Carlos Boundary
  - Sphere of Influence
  - Major Streets
  - Streets
  - Caltrain Railroad and Stations
  - Surrounding Jurisdictions
  - Parks and Open Space
  - Waterbodies
  - San Carlos Airport



August 2020  
Sources: United States Census Bureau, 2019.  
City of San Carlos, County of San Mateo, Urban Footprint, 2020.

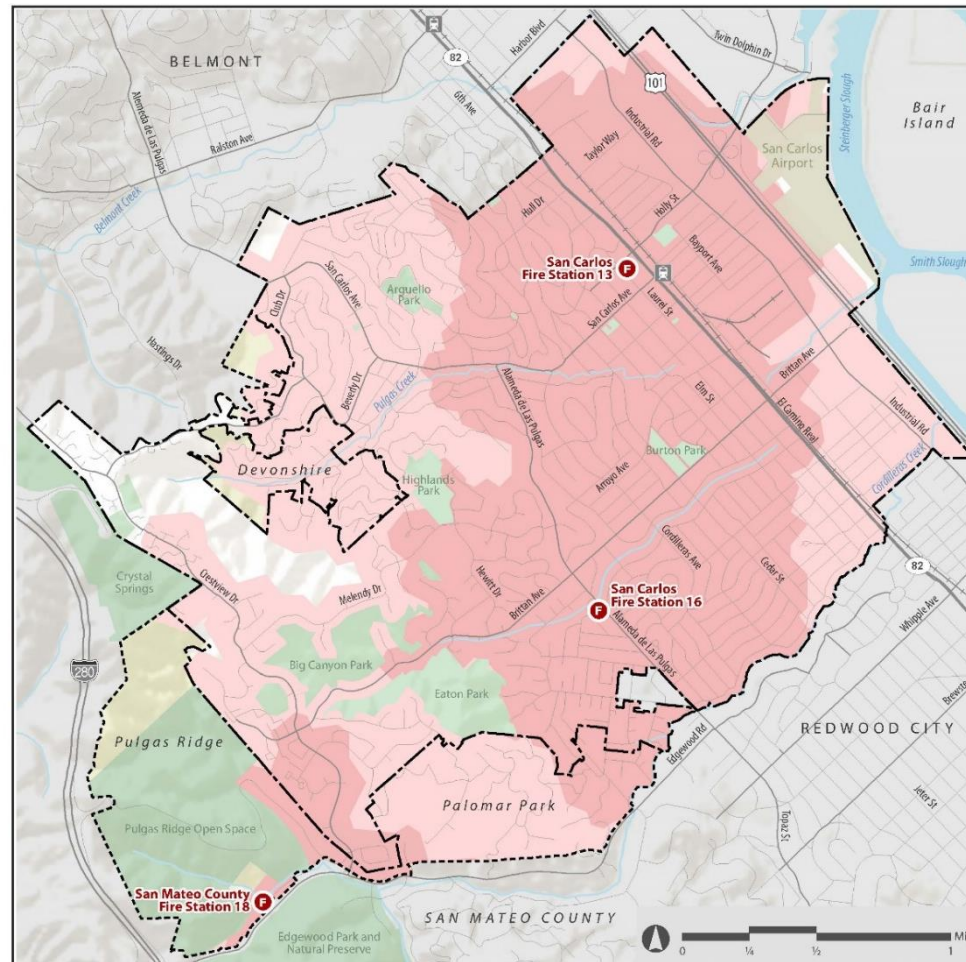


## ELEMENT

FIGURE 8-20

### Fire Station Service Areas

- Fire Service Areas**
- Within One-Mile Driving Distance
  - Within Two-Mile Driving Distance
  - F Fire Station
- Base Map Features**
- City of San Carlos Boundary
  - Sphere of Influence
  - Major Streets
  - Streets
  - Caltrain Railroad and Stations
  - Surrounding Jurisdictions
  - Parks and Open Space
  - Waterbodies
  - San Carlos Airport



All areas are served; however, some may be outside of the two-mile driving distance.

August 2020  
 Sources: United States Census Bureau, 2019;  
 City of San Carlos, County of San Mateo, Urban Footprint, 2020.

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

## ELEMENT

### Goals, Policies, and Actions



**GOAL**  
**ESPS-13** Ensure adequate public services and high-quality design of public facilities to make San Carlos a safe, enjoyable, and quality community in which to live, work and shop.

### POLICIES

**Policy ESPS-13.1** Provide efficient and timely processing of development review and building permit applications, while maintaining quality standards in accordance with City Ordinances. Look for solutions to problems, be responsive to community concerns, promote positive communications at all levels of review and provide analysis and advice to decisionmakers to help them make informed decisions. Encourage early public input.

**Policy ESPS-13.2** Establish and regularly monitor levels of service of San Carlos' public facilities and services.

**Policy ESPS-13.3** Adopt public improvement standards to achieve high-quality public facilities. Excellence in the appearance of public facilities shall be of utmost importance and consideration. New development and redevelopment shall be designed with complementary public and private amenities. Streetlights, benches, accessory structures, public art and public and private spaces shall be designed in a complementary fashion. Landscaping shall be an important and significant design component of development and landscaping of areas visible from public streets and nearby residences shall be part of the initial development. The City's design guidelines and standards shall establish the objectives, techniques and programs to implement the location, amount and type of landscaping material appropriate to these objectives. Encourage native plants and trees.

**Policy ESPS-13.4** Work with all special districts, including the school districts, to ensure that development within the city is coordinated with provision of services.

**Policy ESPS-13.5** Maintain neighborhood schools wherever possible. Evaluate City potential to acquire any surplus school sites. If redeveloped, sites

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES



## ELEMENT

shall be used for purposes which are compatible with the surrounding neighborhood and consistent with the General Plan Land Use Map and shall strive to retain school recreation facilities for neighborhood use.

**Policy ESPS-13.6** Maintain existing library facilities as an important activity center within the community.

**Policy ESPS-13.7** Continue to locate City administrative functions in the Elm Street Civic Center area and consider joining other service providers for administrative functions when presented.

**Policy ESPS-13.8** Approve rezoning and development permits only when adequate services are available, or when a program to provide services has been approved by the applicable district and the City.

**Policy ESPS-13.9** Ensure that adequate public services and facilities are planned and constructed to accommodate the population of the city.

**Policy ESPS-13.10** Require existing overhead utility lines be placed underground in new development and redevelopment through a phased

program of conversion in existing overhead areas.

**Policy ESPS-13.11** Retain a City Corporation Yard.

**Policy ESPS-13.12** Support the dedication and preservation of rights-of-way for future transit service along the rail corridor.

## ACTIONS

**Action ESPS-13.1** Define acceptable service levels for San Carlos' public facilities and services.

**Action ESPS-13.2** Annually update the City's long-range Capital Improvements Program. The Program shall continue to address all City facilities that are included in the development impact fee program, facilities needed to solve existing deficiencies and to accommodate projected growth and shall include a funding and phasing program for provision of facilities in not less than five-year increments through the end of the updated planning period. Encourage all special districts serving San Carlos to do the same.

**Action ESPS-13.3** Create and implement a planting and beautification program for public facilities.

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES



## ELEMENT

**Action ESPS-13.4** Provide online access, as well as a hard copy on reserve in the San Carlos Library, of the complete General Plan and all its amendments.

**Action ESPS-13.5** Establish a network of equitably located community resilience hubs at community facilities to make San Carlos a safe, enjoyable, equitable, and quality community in which to live work and shop.



### GOAL ESPS-14

Provide educational opportunities for all ages.

### POLICIES

**Policy ESPS-14.1** Support schools and educational institutions as a key component of San Carlos' identity.

**Policy ESPS-14.2** Support the availability of all types of educational opportunities, both formal and

informal, for residents of all ages and abilities.

**Policy ESPS-14.3** Ensure that all residents have access to library services including access to computers and other technology.

**Policy ESPS-14.4** Evaluate through the California Environmental Quality Act (CEQA) process how new development impacts schools, as the quality of San Carlos schools is a primary asset of the city.

**Policy ESPS-14.5** Participate in the long-range planning activities with San Carlos Unified School District and Sequoia Union High School District.

### ACTIONS

**Action ESPS-14.1** Study establishing additional educational uses in the Civic Center area.

**Action ESPS-14.2** Advocate for reestablishing a high school within San Carlos for San Carlos residents.

**Action ESPS-14.3** Maintain and enhance City Council collaboration with the San Carlos School District and other appropriate educational entities.



# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

## ELEMENT



### GOAL ESPS-15

Establish San Carlos' position as a community cultural and arts center.

### POLICIES

- Policy ESPS-15.1** Provide diverse, high-quality experiences for cultural activities and the arts.
- Policy ESPS-15.2** Provide functionally well-designed, conveniently-located facilities for cultural activities and the arts, both indoors and outdoors.
- Policy ESPS-15.3** Encourage galleries and artists' studios to locate in San Carlos.
- Policy ESPS-15.4** Continue and enhance alternative funding strategies for providing additional cultural and arts facilities including naming rights and sponsorships, grants and endowments.

### ACTIONS

- Action ESPS-15.1** Provide for temporary and permanent public art displays and cultural programs on City properties and facilities, in accordance with a Public Art Master Plan.
- Action ESPS-15.2** Encourage voluntary installation of easily viewable public art on private properties in accordance with a Public Art Master Plan.
- Action ESPS-15.3** Encourage art fairs and other cultural events Downtown and elsewhere in the community.
- Action ESPS-15.4** Prepare a feasibility study, including program needs and site identification, for a performing arts center.
- Action ESPS-15.5** Work collaboratively with local schools and the community to build on the availability of performing arts facilities at local schools.
- Action ESPS-15.6** Identify sites for and study the feasibility of outdoor performing arts spaces.
- Action ESPS-15.7** Maximize the accessibility of all arts facilities with convenient access, dropoff, pickup, parking, and delivery.
- Action ESPS-15.8** Look for opportunities to develop a work center for artists. Study alternatives for

# 8 ENVIRONMENTAL SAFETY AND PUBLIC SERVICES

## ELEMENT

providing gallery spaces capable of hosting exhibitions and display space for artists.



### GOAL ESPS-16

Promote Community Building activities in San Carlos.

### POLICIES

**Policy ESPS-16.1** Continue to support and recognize the role of community groups and organizations.