8 PUBLIC SAFETY ELEMENT

8.1 | INTRODUCTION

The Public Safety Element is designed to establish goals, policies and implementation programs that will protect the City from risks associated with seismic, geologic, flood, fire, and environmental hazards. By identifying these hazards and the appropriate related policies, the Public Safety Element is intended to effectively reduce the potential for life threatening, property damaging, and economically and socially detrimental events. In addition, this element is used as a guide for establishing land use patterns that minimize the exposure of City residents to excessive natural and man-made hazards. The goals of the Public Safety Element overlap with goals in other elements, particularly the Open Space & Conservation Element.

The Public Safety Element includes the following sections:

8.2 **Regulatory Framework:** This section describes the regulatory requirements for public safety elements.

8.3 **Seismic Hazards:** This section describes the fault zones in Martinez, hazards from seismic activities, potential for slope failure and ground shaking.

8.4 **Other Geological Hazards and Constraints:** This section describes other seismic hazards no discussed in Section 8.3.

8.5 **Fire Hazards:** This section describes fire hazards in Martinez, including recent wildfires. It also addresses fire emergency response and the City's state and local responsibility areas.

8.6 **Flood Hazards:** This section describes Martinez flood hazards, major drainage basins, and dam inundation zones.

8.7 **Climate Change Adaptation and Resilience:** This section discusses potential effects from global climate change.

8.8 **Hazardous Materials:** This section describes risks of future hazardous materials incidents and lists the relevant hazardous materials programs and agencies.

8.9 **Airport Safety:** This section discusses the Buchanan Field Airport and documents addressing flight paths, height limits, and airport safety zones.

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8.10 Public Safety Element Goals, Policies, and Measures: This section lists the goals, policies, and implementation measures for the Public Safety Element.

The Growth Management and Parks & Community Facilities elements of the General Plan contain capital and performance standards for fire service, and capital facilities to ensure flood control. The Land Use Element also contains policies that add critical area-specific details regarding geotechnical safety.

8.2 | REGULATORY FRAMEWORK

General Plan safety elements must, consistent with Government Code Section 65302(g), provide for the protection of the community from any unreasonable risks associated with the effects of:

- Seismically induced surface rupture, ground shaking, ground failure;
- Tsunami, seiche, and dam failure;
- Slope instability leading to mudslides and landslides;
- Subsidence;
- Liquefaction;
- Other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body;
- Flooding;
- Wildland and urban fires; and
- Climate change.

General plan safety elements must include mapping of known seismic and other geologic hazards. It must also address evacuation routes, military installations, peak load water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

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Safety elements must also identify information regarding flood hazards, establish a set of comprehensive goals and policies for the protection of the community from the unreasonable risks of flooding, and establish a set of feasible implementation measures designed to carry out the goals and policies for flood protection. It is recommended that the safety element do the same for drought impacts.

Safety elements must also be reviewed and updated as necessary to address the risk of fire for land classified as "state responsibility areas" and "very high fire hazard severity zones".

Risk reduction strategies should complement those of the local hazard mitigation plan. The City adopted the Contra Costa County Hazard Mitigation Plan in 2018, which is a multi-jurisdictional plan developed in accordance with the Disaster Mitigation Act of 2000. The Contra Costa County Hazard Mitigation Plan serves as the City's local hazard mitigation plan and is incorporated by reference into this General Plan.

An increasingly important factor affecting hazard assessment and disaster management is climate change. In 2015, Senate Bill 379 added requirements for safety elements to include a climate change vulnerability assessment; measures to address vulnerabilities; and comprehensive hazard mitigation and emergency response strategies for climate change impacts. Section 8.7 of this Element provides an overview of climate change risks to Martinez and goals, policies, and programs to address these vulnerabilities. This Public Safety Element and the City's local hazard mitigation plan fully address the requirements of Government Code section 65302(g)(4).

8.3 | SEISMIC HAZARDS

The entire San Francisco Bay Area is located in a region of active seismicity. The seismicity of the region is primarily related to the San Andreas Fault Zone (SAFZ). The SAFZ is a complex of active faults forming a boundary between the North American and the Pacific lithosphere. Historically, numerous moderate to strong earthquakes have been generated in northern California by several major faults and fault zones in the SAFZ system. Active faults in the area include the Antioch, Calaveras, Concord, Franklin, Green Valley, Greenville, Hayward, Rodgers Creek, San Andreas, and Southampton faults. Three faults are of primary significance in the Martinez area. These include the Franklin Fault (thought to be a northern extension of the Calaveras Fault); the Concord-Green Valley Fault (which extends from south of Concord north to Lake County); and the Southampton Fault (which may also be a part of the active Calaveras Fault system in northern Contra Costa County). Figure 8-1 shows the location of these fault areas and potential shaking intensity areas.

The Franklin Fault forms an approximately one-mile-wide zone, trending northwest through the Alhambra Valley, and referred to as the Franklin Fault Zone. The Concord-Green Valley Fault is approximately aligned with the northwest-southeast orientation of Pacheco Creek and a segment of the Union Pacific Railroad line in the eastern part of the Martinez area. The Southampton Fault runs east, parallel to a portion of the Franklin Fault in the northern portion of the Martinez area, and then turns to the south, eventually meeting the Franklin Fault.

A pervasive network of smaller, local fault traces is also present, although little is known about these traces, either individually or in relation to the Franklin, Concord-Green Valley, or Southampton faults.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act went into effect in 1973 and has been amended several times. The purpose of this Act is to prohibit the location of most structures for human occupancy across the traces of active faults, thereby mitigating fault rupture hazards. Under the Act, the California Geological Survey (CGS) is required to delineate Earthquake Fault Zones (EFZ) along active faults in California. Jurisdictions containing these zones must then regulate certain types of development within them.

The presence of a fault in a given area does not imply the inevitability of an earthquake there, since many of California's faults have not been active for thousands or even millions of years. The basis for inclusion of a fault as an EFZ is evidence that suggests either its recent or potential activity. The CGS defines potentially active faults as those considered to have been active during Quaternary time, about the last two million years. Since this category encompasses so many faults, the CGS has further refined its analysis by identifying those faults that have a relatively high potential for future activity, meriting concern because they have been well-defined surface traces.

A fault is deemed sufficiently active if there is evidence of Holocene (last 10-12,000 years) surface displacement along one or more of its segments or branches, as evidenced either through direct observation or inference. A well-defined fault leaves a trace that is clearly detectable by a trained geologist as a physical feature at or just below the ground surface, as identified by direct observation or by indirect methods. Within the Martinez area, the Concord-Green Valley Fault has been classified as an Alquist-Priolo Earthquake Fault Zone.

Activity Level of Other Planning Area Faults

The Franklin Fault was reportedly active during the Quaternary time (showing late Pleistocene displacement), but does not seem to have been active during the Holocene; thus, it would not be classified as sufficiently active to be categorized as an EFZ. The Southampton Fault has not been classified as an EFZ but is inferred to be active on the basis of a tectonic model.

Hazards from Seismic Activities

Ground failure is a secondary effect of ground shaking and can include landslides, liquefaction, lurching, and differential settlement. Liquefaction occurs when saturated and poorly consolidated granular material is shaken during an earthquake and is transformed into a fluid-like state. Buildings can tilt or sink, utility lines can rise to the surface, and levees can fail. If soils are poorly consolidated, the ground can subside. The Contra Costa County Hazard Mitigation Plan identifies approximately 2,180 existing buildings that may be situated on soils subject to liquefaction. Figure 8-2 displays the liquefaction potential for the Martinez area. The areas in Martinez with the highest potential for liquefaction are within the Marina waterfront area and a portion of the Downtown area. Moderate liquefaction risks are present for properties near Alhambra Creek throughout the City.

Seismic hazards within the Martinez area include the possibility of fault rupture and secondary damage from landslides, liquefaction, and ground shaking. Many of the landslides within the Martinez area are associated with the trend of the faults, especially the Franklin Fault. Faults have the potential to act as groundwater barriers, causing localized accumulation of groundwater. These zones of accumulated groundwater can cause slope stability problems.

The City typically requires geotechnical investigations for new development, including single-family residential development. Mitigation for new construction often includes installation of deep foundation support piers (anchored to bedrock); installation of appropriate drainage improvements around a structure; and seismic design pursuant to the Uniform Building Code.

Slope Failure

The major geologic- and soils-related hazards in Martinez are hill slope failure and static settlement of soils. Potential for hill slope failure, or landslide, depends upon the geologic composition of a slope. Certain combinations of rocks and soils are more stable than others, and hill slope failure can occur without an earthquake. Landslides involve the downslope movement of soil and rock. Earthquake-induced landslides will most likely occur in the same areas where landslides are caused by other conditions. Unstable slopes and soils subject to static settlement can become more acute during an earthquake. Man-made changes, such as excavating too steeply, undercutting slopes, or placing fills or structures on unstable slopes, may also induce landslides.

Regional landslide mapping has indicated the presence of slope stability hazards in Martinez, with the hazard typically more pronounced on steeper slopes. The hazards can include relatively large, loose debris flows.

Ground Shaking

The Association of Bay Area Governments (ABAG) regularly updates maps showing estimated maximum ground shaking intensity throughout the Bay Area based on geology and soils, and as a result of earthquakes on various faults. Although these maps are highly generalized, they are useful as a general indication of the relative ground shaking that an area may experience from an earthquake. The ground shaking intensity is measured from low to high depending on the frequency of shaking potential. The entire City is designated as an area subject to very strong shaking.

8.4 | OTHER GEOLOGIC HAZARDS AND CONSTRAINTS

Geologic hazards and constraints, in addition to those posed by the Martinez area's seismicity, include steep slopes, landslides (caused by means other than seismic activity), soils of high shrink-swell potential, and other soil conditions that pose limitations to development. Steep slopes (over 30 percent) are found throughout the Martinez area, with the exception of the marshlands, urbanized flatlands, and creek and stream bottoms. The steepest slopes in Martinez have been identified in the Franklin Hills area. Known landslides are particularly prevalent in the Alhambra Hills, although they are extensive in other scattered locations throughout the hilly portions of Martinez as well. Expansive soils or soil of high shrink-swell properties dominate the Martinez hills and are also distributed in creek and valley bottoms, such as the Alhambra Valley and the Grayson and Pacheco creek beds.

Steep slopes pose a constraint to development due to the potential need for costly engineering techniques to ensure site stability. In some cases, the severity of the constraint would preclude development entirely. In areas of known slope instability, the downhill movement of slope materials varies from the imperceptible motion of slope creep to the sudden and dangerous slump of a large slide. Earth movement threatens all building foundations, roads, and utilities built thereon or in the path of the slide. Development is generally prohibited in unstable areas, although some measures are available to stabilize unstable slopes. Areas susceptible to landslide in and around Martinez are shown in Figure 8-3.

Problem soils, such as those which shrink in dry weather and swell in the presence of increased moisture, can damage overlying foundations or structures. Practical engineering solutions are available for such problem soils, although development in these areas is correspondingly more expensive.

CCCFPD Fire Engine at Martinez Parade *(Source: Kevin Murray)*

8.5 | FIRE HAZARDS

The Martinez area contains a wide range of land use types, from developed urban areas to expanses of unirrigated open space. Urban fire potential arises in urban centers where there is potential for the spread of fire from one structure to the next due to the clustering of buildings. As the City grows and development becomes denser, the possibility of urban fires increases. Existing undeveloped open space or wildland within Martinez and surrounding areas creates potential for development of fires dependent upon type of vegetation, known as surface fuel, as well as weather and wind. During the summer season, wildfire can spread swiftly, fed by winds from the Carquinez Strait. Wildfires occur infrequently but typically cause more damage than urban fires.

Recent Wildfires

According to the State of California Multi-Hazard Mitigation Plan and the California Department of Forestry and Fire Protection, Contra Costa County historically experiences wildfires every two to three years. There have been over 51 wildfires in Contra Costa County since the 1950s resulting in loss of lives, property, and natural resources. The most recent large fire was the 3,111-acre Morgan Fire in Mt. Diablo State Park in 2013. According to the California Department of Forestry and Fire Protection (Cal Fire) incident archive, wildfires in the Martinez area since 2013 are set forth in Table 8-1.

Table 8-1: Wildfires in the Martinez Area Since 2013

Year	Name	Location	Acres Burned
2019	Forest Fire	Alhambra Ave. and Alhambra Hills Dr., Martinez	50
2019	Fellow Fire	Franklin Canyon Rd., Contra Costa County	24
2018	Alhambra Fire	Off Highway 4 and Alhambra Ave., Martinez	30
2016	Franklin Fire	Cummings Skyway and Franklin Canyon, Contra Costa County	40

Fire Emergency Response

In the event of a fire emergency, fire services are provided to the Martinez area by the Contra Costa County Fire Protection District, and much of the City is served by the Martinez Water Department, which takes into account fire flow needs when determining storage. Contra Costa Fire Stations 9, 12, 13 and 14 serve Martinez and are shown in Figure 8-4 and Figure 8-5. The Contra Costa Fire Protection District has entered into mutual aid agreements with other fire departments through the California State Master Mutual Aid Agreement that is administered by the State Office of Emergency Services as well as through the Contra Costa County Fire Chiefs' Mutual Aid Plan. The District is also party to multiple automatic aid agreements with fire agencies that are generally in close proximity.

Fire Hazard Mitigation Planning

The best way to minimize fire hazards in Martinez is through implementation of fire ordinances and standards. Contra Costa County Fire Protection District's ordinances and standards cover topics such as location of fire hydrants and provision of sprinklers and roadway widths, and provide the basis for the rural fire prevention capital facilities standards and response time performance standards specified in this Element. The City has ratified the Contra Costa County Fire Protection District Fire Code, which adopts by reference the 2019 California Fire Code (California Code of Regulations, Title 24, Part 9) as amended by the changes, additions, and deletions set forth in the ordinance adopting the Contra Costa County Fire Protection District Fire Code.

State and Local Responsibility Areas

The California Department of Forestry and Fire Protection (CAL FIRE) is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. CAL FIRE's fire hazard severity zone maps were developed using a science-based and field-tested computer model that designates "moderate", "high", and "very high fire hazard severity" zones in the "State Responsibility Area (SRA)" and "Local Responsibility Area (LRA)". The SRA includes the areas in the state where the State of California has the primary financial responsibility for the prevention and suppression of wildland fires. The LRA includes areas of California where local governments have financial responsibility for wildland fire protection.

Figure 8-4 and Figure 8-5 show the fire hazard severity zones for the Martinez SRA and LRA. As shown in Figure 8-4, the Alhambra Valley neighborhood and the unincorporated area to the west of Martinez are located in a high fire hazard severity zone within the SRA. According to the Contra Costa County Hazard Mitigation Plan, there are 84 buildings and approximately 254 people in Martinez' high fire hazard severity zone.

Figure 8-5 shows the "Very High Fire Hazard Severity Zone (VHFHSZ)" within the Martinez LRA. The Contra Costa County Hazard Mitigation Plan identifies 943 buildings and approximately 2,758 people living in VHFHSZ. Critical facilities located in the VHFSZ include Contra Costa Regional Medical Center, Martinez City Hall, and Alhambra High School.

The majority of the land area within the Martinez VHFHSZ is designated in the General Plan land use map (Figure 2-4) as either "Permanent Public Open Space (PPOS)" or "Environmentally Sensitive Land (ESL)". These areas contain minimal or no existing development. Both land use categories restrict potential development consistent with the objectives of minimizing risks to humans and structures set forth in the Contra Costa County Hazard Mitigation Plan. A portion of the Martinez VHFHSZ along Alhambra Avenue and Berrellesa Street contains existing development consisting primarily of low to medium residential uses. Parcels within the VHFHSZ in Martinez that lack two routes for emergency evacuation are set forth in Figure 8-5a and mitigation policies for these properties are set forth in Section 8.11 of this Element.

Contra Costa County Wildfire Protection Plan

The Contra Costa County Wildfire Protection Plan provides an analysis of wildfire hazards and risk in the "Wildland Urban Interface (WUI)" in Contra Costa County. First adopted in 2009, the Diablo Fire Safe Council and project partners worked with residents, representatives of federal, regional, state and local agencies, and community organization, including the Martinez Area Community Emergency Response Team (CERT), to update the plan in 2019. The updated Contra

Costa County Wildfire Protection Plan was approved in May 2020. The goal of the plan is to reduce fire hazard through increased information and education about wildfires; hazardous fuels reduction; actions to reduce structure ignitability. The Plan also includes other recommendations to assist ongoing emergency preparedness and fire suppression efforts.

Contra Costa County Hazard Mitigation Plan

The Contra Costa County Hazard Mitigation Plan was developed in accordance with the Disaster Mitigation Act of 2000 and followed FEMA's Local Hazard Mitigation Plan guidance. The Contra Costa County Hazard Mitigation Plan 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) involves planning, policy changes, programs, projects, and other activities. The Contra Costa County Hazard Mitigation Plan covers the unincorporated county; 25 special purpose districts; and 10 municipalities, including Martinez. The City of Martinez adopted Volume 1 of the Contra Costa County Hazard Mitigation Plan and the Martinez portion of Volume 2 on December 5, 2018.

Martinez Area CERT

The Martinez Area CERT has worked with the Contra Costa Fire Protection District from 2017 to the present (3 consecutive years) conducting weed abatement surveys throughout the high-risk fire zone in the Martinez SRA and LRA. The Martinez Area CERT has given community educational workshops on fire safety and prevention. In 2019, due to the efforts of Martinez Area CERT, the National Fire Protection Association recognized Martinez as a Firewise Community. The newly established Firewise area is a two-mile long stretch along Alhambra Avenue that represents a wildland urban interface. The Martinez Area CERT is already working in the Firewise area to provide homeowners with the needed education to make their homes and property more fire safe.

Demand for Fire Protection and Emergency Services

The development and growth that will be facilitated by the Martinez General Plan will result in additional residents and businesses in the City, including new residential, commercial office, and industrial uses. This additional growth will result in increased demand for public service, including fire protection and emergency services. As demand for service increases, there will likely be a need to increase staffing and equipment to maintain acceptable service ratios, response times, and other performance standards. New or expanded structures may be required to accommodate adequate staffing, equipment, and services. The Growth

Management Element includes a Goal GM-6 for the compliance with applicable levels of service. Growth Management Element Policies GM-P-6.1 and GM-P-6.2 support Goal GM-6 by requiring new development to contribute to and maintain adopted performance standards for police, fire, and emergency medical response and services, and by requiring new growth to pay its share of the costs associated with that growth.

8.6 | FLOOD HAZARDS

Most of the flooding that occurs in Martinez is caused by heavy rainfall and subsequent runoff that cannot be adequately conveyed by the existing storm drainage system combined with surface water bodies. The National Flood Insurance Act, adopted by the U.S. Congress in 1968, made federally subsidized flood insurance available to property owners if their communities participate in the National Flood Insurance Program (NFIP). A community establishes its eligibility to participate in the NFIP in two ways:

- By adopting and enforcing floodplain management measures to regulate new construction; and
- By ensuring that substantial improvements within Special Flood Hazard Areas (SFHAs) are designed to eliminate or minimize future flood damage.

A Special Flood Hazard Area (SFHA) is defined by FEMA as an area within the floodplain having a one (1) percent or greater chance of flood occurrence within any given year. SFHAs are delineated on flood hazard boundary maps issued by the Federal Emergency Management Agency (FEMA) for individual communities. The Flood Disaster Protection Act of 1973 and the National Flood Insurance Reform Act of 1994 make flood insurance mandatory for most properties in SFHAs. In 1995 FEMA completed a Flood Insurance Study for Martinez that delineates a SFHA covering substantial areas of the community. The 1995 Flood Insurance Rate Maps were updated by FEMA in 2015.

Martinez Municipal Code Chapter 15.30 (Floodplain Management) provides a set of development regulations for properties to avoid and reduce property damages when subjected to a significant flood event. FEMA has recently reviewed the existing Flood Insurance Rate Map (FIRM) for the City of Martinez, finding no change to the existing flood insurance information but has introduced new flood designations for areas along the waterfronts that are subject to inundation by a 1-in-100 (one percent) annual chance flood event with additional hazards associated with storm-induced waves. As a result of this change the Martinez municipal code was updated and new regulations went into effect in the Fall of 2015. The most recent FEMA flood map is shown in Figure 8-6 and it includes the City's FEMA 100 and 500 year flood zones.

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The Major Drainage Basins

There are three notable drainage basins within the Martinez area:

- **Grayson Creek Drainage Basin:** Grayson Creek, a perennial stream with some intermittently flowing tributaries, drains much of the valley area of Pleasant Hill, as well as an area at the southernmost Martinez city limits. Three water impoundments (artificially constructed water bodies) in the Hidden Lake area and one pond on a branch in the Contra Costa Country Club are within the Grayson Creek drainage basin. The amount of riparian vegetation along streams in the Grayson Creek drainage basin varies throughout the area. The Contra Costa Canal also winds through the Grayson Creek basin in a north-south direction.

- **Vine Hill Drainage Basin:** This basin drains is roughly five to seven square miles of generally low rolling landscape between Martinez Ridge and Interstate 680. Neither the intermittent stream system nor its riparian vegetation is well-developed. The depth to seasonal high water is shallow through parts of the Vine Hill drainage basin. Mean annual rainfall in this sub-area is less than 12 inches and is the lowest in the Martinez environs.

- **Alhambra Creek Drainage Basin:** Alhambra Creek is the most critical hydrologic system in the Martinez area, and it has been the subject of considerable policy debate and study. A stream draining 15.1 square miles of generally rugged topography and eventually passing through urban Martinez, it possesses great scenic and recreational qualities as well as flood dangers.

Flooding and Historical Conditions

Alhambra Creek is considered a flash drainage basin characterized by a rapid rise in flood peaks and rapid recessions. In addition, the section of the channel north of Main Street is influenced by tidal action. Alhambra Creek has received increasing amounts of surface flow runoff over the years with the rise in impervious surfaces in its urban reaches. Impervious surfaces such as concrete and asphalt prevent absorption of runoff and, in addition to swelling the flow within the creek bed itself, excessive runoff may lead to overland sheet flow within the basin. The flooding of Downtown Martinez has been a frequent winter occurrence.

In dealing with the flood problem, past studies done by the U.S. Army Corps of Engineers proposed a stormwater bypass system that included culverting portions of the natural creek, channelization, and channel realignment. Other proposals have included a decentralized flood

detention system of multiple small check detention basins in the first and second order sub-basins that would hold flood waters in the uplands, thus permitting their gradual release. Downstream flood peaks were projected to be reduced, stream flows made more uniform, and downstream channel and embankment improvements could be implemented where channel capacity is restricted.

Proposals on detention basins have noted the possibility of providing opportunities for public recreation and open space use and development of a water-oriented recreation system within the watershed. One of the goals of such proposals has been to design alternatives compatible with open space and conservation preservation, and some proposals have emphasized watershed conservation techniques, such as preservation of woodlands, careful attention to site grading, and provision of on-site detention practices. The Alhambra Valley sub-basin is the most heavily wooded and receives the highest rainfall in the Martinez area and therefore is most critical for conservation proposes.

Recent Alhambra Creek Improvements

In the early 1990s, the City initiated a process designed to enhance Alhambra Creek downtown. The Alhambra Creek Enhancement Plan was completed and approved by the City Council in 1998. Since approval of the Enhancement Plan, completed projects related to flood control were replacement of two railroad bridges; channel widening; re-establishment of a flood plain downstream of the railroad tracks (downtown Martinez); and installation of retaining walls.

In 2002, the Contra Costa County Flood Control and Water Conservation District, in cooperation with the City of Martinez, completed a new drainage basin in the vicinity of Pleasant Hill Road and Nancy Boyd Park. The detention basin is intended to mitigate increased hydrologic impacts associated with new development in the area.

Dam Inundation

Earthquakes centered close to a dam are typically the most likely cause of dam failure. Dam inundation maps have been required in California since 1972 following the 1971 San Fernando Earthquake and near failure of the "Lower Van Norman Dam". The Martinez Planning Area has one dam that is identified by the State Department of Water Resources' Division of Safety of Dams and U.S. Bureau of Reclamation – the Martinez Dam.

The Martinez Dam is a Central Valley Project in Contra Costa County, which contains the Martinez Reservoir. The dam was constructed by earth fill in 1946/1947, and is owned by the U.S. Bureau of Reclamation. The dam has a drainage area of 40 square miles, and an elevation

of 72 feet. The total storage capacity is 268 acre-feet (AF). The reservoir's surface area is 13 acres and has a spillway capacity of 53 cubic feet per second.
The Martinez Reservoir is impounded in a small, north-facing valley at the eastern edge of Martinez. The site is situated on the northeast margin of the East Bay hills which are, in the immediate reservoir vicinity, rounded low hills rising to elevations of 200 feet or less. To the west and south, the topographic relief increases to 600 feet or more along prominent ridges and hills underlain by folded Tertiary and Cretaceous strata which strike generally northwest-southeast. Approximately two miles north of the reservoir, the Sacramento River flows westward from Suisun Bay through the Carquinez Strait. At the reservoir site, the hills are underlain by moderately hard Tertiary sandstone and minor shale, commonly mantled by thin alluvial cover. The bedrock strata dips moderately to the southwest of the reservoir. Minor, discontinuous faults locally cut the bedrock, but do not significantly disrupt the overall northwest tending synclinal structure. Throughout the site vicinity, alluvium, stream channel deposits, and artificial fill apron the hills and underlie the lower ground.

The Martinez Dam does not have a history of dam failure. However, it is identified as having the potential to inundate habitable portions of the Martinez Planning Area in the unlikely event of dam failure. The potential inundation areas for the Martinez and Lafayette reservoirs are shown in Figure 8-7.

Flood Hazard Funding Programs

The Disaster Mitigation Act of 2000 requires local governments to develop and submit flood hazard mitigation plans by November 1, 2004 as a condition of receiving Hazard Mitigation Grant Program and other related funds. FEMA will continue to make funds available for hazard mitigation planning. Also, FEMA distributes monies for flood mitigation assistance to states that, in turn, provide funds to local jurisdictions. The emphasis for allocating these funds is on repetitive loss properties.

8.7 | CLIMATE CHANGE ADAPTATION AND RESILIENCE

The Earth's climate is warming, mostly due to human activities such as changes in land cover and emissions of certain pollutants. Greenhouse gases (GHGs) are the major human-induced drivers of climate change. These gases warm the Earth's surface by trapping heat in the atmosphere.

The evidence that the climate is warming is unequivocal. Global surface temperatures have increased 0.9 °C (1.6 °F) relative to the 1951-1980 average temperatures. Seventeen of the 18 warmest years in the 136-year record have occurred since 2001. Consistent with global

observations, annual average air temperatures have increased by about 1.8 °F in California, with temperatures rising at a faster rate beginning in the 1980s.

As temperatures continue to rise, California faces serious climate impacts, including but not limited to the following:

- More intense and frequent heat waves;
- More intense and frequent drought;
- More severe and frequent wildfires;
- More severe storms and extreme weather events;
- Greater riverine flows;
- Shrinking snowpack and less overall precipitation;
- Accelerating sea level rise; and
- Ocean acidification, hypoxia, and warming.

The Cal-Adapt website provides resources to help communities understand how climate change will raise temperatures and exacerbate extreme heat events, drought, wildfire, and coastal flooding in their area. The Cal-Adapt tools available on the website show projections for two possible climate futures: one in which greenhouse gas emissions peak around 2040 and then decline (RCP 4.5); and another in which emissions continue to rise strongly through 2050 and plateau around 2100 (RCP 8.5). Both futures are considered possible depending on how successful the world is at reducing emissions and atmospheric carbon dioxide.

Emissions scenarios used in the General Plan are the same as those used by the Intergovernmental Panel on Climate Change's Fifth Assessment Report and are called "Representative Concentration Pathways (RCPs)". There are four RCPs: 2.6, 4.5, 6.0, and 8.5. Each represents a set of possible underlying socioeconomic conditions, policy options, and technological considerations, spanning from a low-end scenario that requires significant emissions reductions resulting in zero global emissions by 2080 (RCP 2.6) to a high-end, "business-as-usual," fossil-fuel-intensive emissions scenario (RCP 8.5). The low-end scenario is most closely aligned with California's ambitious greenhouse gas reduction targets and the aspirational goals of the United Nations Framework Convention on Climate Change 2015 Paris Agreement. Thus far, global emissions are continuing to follow the "business-as-usual" trajectory.

Average Maximum Temperatures

Overall temperatures are projected to rise substantially throughout this century. The historical (1990-2005) annual maximum mean temperature for Martinez is 71.7 °F. Under the low emissions (RCP 4.5) scenario, the maximum mean temperature in Martinez is expected to rise

about two (2) °F by the year 2050 and four (4) °F by the year 2100 (see Table 8.3). Under the high emissions (RCP 8.5) scenario, the maximum mean temperature is projected to rise nearly eight (8) °F to about 79 °F by the year 2100.

Warmer temperatures will increase the demand for air conditioning and cooling systems. A common proxy used to understand the demand for energy needed to cool buildings is called "Cooling Degree Days (CDD)". A CDD is defined as the number of degrees by which a daily average temperature exceeds a reference temperature, in this case 65 °F, which loosely represents the average daily temperature above which space cooling is needed. According to the Cal-Adapt modeling tools, the average number of CDDs increases from an historical average of 687 CDDs in Martinez to 1,035 CDDs by the year 2050 and nearly doubles to 1,301 CDDs by the year 2100 under the low emissions scenario (RCP 4.5). Under the high emissions scenario (RCP 8.5), that average triples to 2,104 CDDs.

Table 8-3: Average Temperatures and Warming Impacts in Martinez

	Historical Average 1990-2005	Low Emissions Scenario (RCP 4.5)		High Emissions Scenario (RCP 8.5)	
		2040-2050 avg.	2090-2099 avg.	2040-2050 avg.	2090-2099 avg.
Annual Avg. Max. Temp.	71.7°F	74.1°F	75.6°F	74.6°F	79.3°F
Annual Avg. Min. Temp.	48.1°F	49.5°F	50.7°F	50.0°F	55.0°F
Annual Cooling Degree Days	687 CDDs	1,035 CDDs	1,301 CDDs	1,116 CDDs	2,104 CDDs
Annual Heating Degree Days	687 HDDs	2,256 HDDs	1,927 HDDs	2,282 HDDs	1,331 HDDs
Annual Extreme Heat Days	5.1 days	17 days	22 days	18 days	47 days

Source: Cal-Adapt, 2018
Notes: CDDs = Cooling Degree Days; HDDs = Heading Degree Days

Average Minimum Temperatures

The historical annual minimum mean temperature for Martinez is 46.7°F. Under the low emissions scenario (RCP 4.5), the minimum mean temperature is expected to rise about one (1) °F by the year 2050 and three (3) °F by the year 2100. Under the high emissions scenario (RCP 8.5), the maximum mean temperature is projected to rise seven (7) °F by the end of the century.

Warmer temperatures should reduce the demand for energy for space heating, and the Cal-Adapt tools show a decrease in the projected number of "Heating Degree Days (HDDs)". HDDs is defined as the number of degrees by which a daily average temperature is below the reference temperature. The historical annual number of HDDs in Martinez is 2,552. That number is projected to decrease about 12% by the year 2050 and 24% by the year 2100 under the RCP low emissions scenario (RCP 4.5). Under the high emissions scenario (RCP 8.5), the number of HDDs declines 48% by the end of the century.

Overall, the Cal-Adapt models project an increase of about 1,420 CDDs and a decrease of about 1,220 HDDs by mid-century under a low emissions scenario. Considering that most heating systems use natural gas and most cooling systems use electricity, which is a cleaner energy source in Martinez, this is somewhat positive news for future mitigation of greenhouse gas emissions.

Extreme Heat Days

As global climate changes, some of the more serious threats to public health will stem from more frequent and intense extreme heat days and longer heat waves. Extreme heat events are likely to increase the risk of mortality and morbidity due to heat-related illness, such as heat stroke and dehydration, and exacerbation of existing chronic health conditions. An extreme heat day is defined by Cal-Adapt as a day in April through October where the maximum temperature exceeds the 98th historical percentile of maximum temperatures based on daily temperature data between 1961-1990. In Martinez, the extreme heat threshold is 103.9 °F.

Cal-Adapt projects a significant increase in the number of extreme heat days for Martinez, as detailed in Table 8.3. Between 1990-2005, there was an average of 5.1 days above 103.9 °F. That average is projected to increase to 17 days by 2050 under the low emissions scenario (RCP 4.5). By the end of the century, the average number of extreme heat days is expected to increase to 22 days and could be as many as 47 days under the high emissions scenario (RCP 8.5).

Those most at risk and vulnerable to heat-related illness are the elderly; individuals with chronic conditions such as heart and lung disease, diabetes, and mental illnesses; infants; the socially or economically disadvantaged; and those who work outdoors. In Martinez, where the senior population that is expected to double by 2040, heat-related illness is of significant concern. Currently, about 12% of Martinez's population is 65 and older and that number is expected to increase to 22% by 2040 (according to ABAG 2017 Projections).

Rainfall

The historical annual mean rainfall for Martinez is 21.9 inches. Under the low emissions scenario (RCP 4.5), annual mean rainfall is expected to rise about three (3) inches by the year 2050, as shown in Table 8.4. Rainfall is expected to be about two (2) inches above the historical mean by 2090. Under the high emissions scenario (RCP 8.5), annual mean precipitation is projected to increase about five (5) inches by 2090. Climate scientists warn that climate change could increase the frequency and intensity of atmospheric river storms in northern California, mostly in the form of occasional years with more extreme storms. These tendencies could produce more frequent and severe flooding, along with prolonged periods of drought. The expected increase in rainfall and storm activity may exacerbate local flooding and could create flooding in areas where it has not previously occurred. While the projected increase in rainfall may mean that local water resources will not be negatively impacted over the long run, prolonged periods of drought may require greater short-term water saving efforts.

Table 8-4: Average Annual Rainfall

Location	Historical Avg.	Low Emissions Scenario (RCP 4.5)		High Emissions Scenario (RCP 8.5)	
		2040-2050	2080-2090	2040-2050	2080-2090
Martinez	21.9”	24.8”	23.8”	23.3”	27.0”
Contra Costa County	20.1”	21.8”	21.0”	20.7”	23.7”
Source: Cal-Adapt, 2018					

Sea Level Rise

The San Francisco Bay Area is vulnerable to a range of natural hazards, including storms, extreme high tides, and rising sea levels resulting from global climate change. Flooding already poses a threat to communities along the Bay and there is compelling evidence that these risks will increase in the future. As temperatures rise globally, sea levels are rising mainly because ocean water expands as it warms, and water from melting of major stores of land ice and glaciers flow into the ocean. In the past century, the average global sea level has increased by seven (7) to eight (8) inches. Sea level at the San Francisco tide gauge has risen by about seven (7) inches since 1900.

Rising seas put new areas at risk of flooding and increase the likelihood and intensity of floods in areas that are already at risk. The State’s Sea Level Rise Guidance Document (2018) projects a “likely” (66% probability) increase in sea level at the San Francisco tide gauge of ten (10) inches by 2040. By the end of the century, sea levels are likely to rise by 2.4 feet under a low

emissions scenario (RCP 2.6) and 3.4 feet under a high emissions scenario (RCP 8.5). Flooding will be more severe when combined with storm events.

Between 2014-2017, the City participated in a sea level rise vulnerability, assessment and adaptation planning project with other Contra Costa jurisdictions and agencies. The objectives of the program were to understand how current and future coastal and riverine flooding may impact transportation and utility networks; industrial facilities and employment sites; residential neighborhoods and community facilities; and shoreline park and recreation facilities.

The final program report, Adapting to Rising Tides: Contra Costa County Assessment and Adaptation Project, assessed two scenarios: 12 inches of sea level rise by 2030, and 66 inches of sea level rise by 2100. For each scenario, the report developed estimates for areas that would be permanently inundated (subject to daily tidal flooding) and temporarily inundated (subject to extreme tides only). The report determined that there is one structure in Martinez at risk for permanent sea level rise inundation by 2030, and ten structures at risk for temporary inundation. By 2100, the number of projected vulnerable buildings increases, with 23 structures in permanent inundation areas and 41 structures in temporary inundation areas. Approximately 523 acres of Martinez's land is expected to be permanently inundated by 2030. By 2100, that number goes up to 821 acres.

The Adapting to Rising Tides report provides extensive analyses and maps and a comprehensive set of adaptation responses that will help the City build resilience and adapt to rising sea levels. Figure 8-8 shows the areas in Martinez that could be impacted by sea level rise of 12 inches, which consists of a small portion the Marina waterfront area and adjacent open space. Figure 8-9 shows the areas in Martinez that would be impacted by a 66-inch sea level rise, which includes most of the Marina waterfront and open space area (including Radke Martinez Regional Shoreline); some commercial areas up to the railroad tracks at the east edge of the waterfront; Marina Vista Avenue at the western edge of the waterfront; and the Telfer Sheldon Oil property on the south side of the railroad tracks. In addition to policies at the end of this element, the Land Use Element sets forth policies to address the use and development of the areas potentially subject to sea level rise. The City's next update of the Housing Element will include additional information of sea level rise and its potential impact on properties identified as housing opportunity sites. The planned Marina Waterfront Master Plan will also require analysis of sea level rise on potential of any new buildings and park/recreation improvements.

Wildfire

Wildfire is an increasingly serious hazard in California. Several studies have indicated that the risk of wildfire will increase with climate change. According to Cal-Adapt, the historical annual average area burned by wildfire in Martinez is about 156 acres. That amount is expected to

remain about the same by mid-century and then decrease approximately 25% to about 118 acres by the end of the century, as shown in Table 8.5. Cal-Adapt projections show the risk for wildfire in Contra Costa County remaining about the same under the low emissions scenario (RCP 4.5) and increasing about 13% under the high emissions scenario (RCP 8.5). Although Contra Costa residents may not experience increased risk from wildfire directly, secondary impacts, such as poor air quality, may increase. Prolonged and more severe drought may exacerbate conditions for wildfires to ignite and spread. An increase in wildfire intensity and extent will increase public safety risks; property damage; fire suppression and emergency response costs; watershed and water quality impacts; and vegetation conversions and habitat fragmentation throughout California.

Table 8-5: Annual Average Area Burned

Location	Historical Average 1990-2005	Low Emissions Scenario (RCP 4.5) 2020-2030	Low Emissions Scenario (RCP 4.5) 2040-2050	Low Emissions Scenario (RCP 4.5) 2080-2090	High Emissions Scenario (RCP 8.5) 2020-2030	High Emissions Scenario (RCP 8.5) 2040-2050	High Emissions Scenario (RCP 8.5) 2080-2090
Martinez	156 acres	152 acres	142 acres	118 acres	143 acres	143 acres	115 acres
Contra Costa County	2,793 acres	2,748 acres	2,792 acres	2,674 acres	2,766 acres	2,817 acres	2,439 acres

Source: Cal-Adapt, 2018

Martinez's Adaptive Capacity

Adaptive capacity is the current ability of a community to address the potential impacts of climate change. The City adopted the Contra Costa County Hazard Mitigation Plan (Volume 1 and the City of Martinez's portion of Volume 2) on December 5, 2018. The Plan serves as Martinez's local hazard mitigation plan and fully addresses the requirements of Government Code section 65302(g)(4). The Plan analyzes the City's adaptive capacity for climate change and contains actions for adapting to reduce the risk of climate change impacts, including flooding and sea level rise.

Martinez has existing policies, plans, programs, resources, and institutions that are already in place to adapt to climate change and reduce potential impacts. The City's Climate Action Plan, which was adopted in 2009, contains recommended actions to reduce greenhouse gas emissions and adapt to the likely impacts of climate change. As described above, the 2016 Adapting to Rising Tides Project provides information and strategies for adapting to sea level rise and building resiliency. Resources to address flooding and storm events are described in Section 8.6 of ~~the~~ this Element, and resources for fire prevention and protection are covered in Section 8.5. In addition, the City has adopted an Emergency Response Plan, described in the

following section, which can be activated for a variety of emergency situations, including flooding, wildfires, and extreme weather events.

(Source: Kevin Murray)

8.8 | COMMUNITY EMERGENCY PREPAREDNESS

Cities must be prepared for all emergencies. The responsibility for immediate response to emergencies such as fires and earthquakes rests with the local agency and in some instances with private industries that provide support services. Many support services are provided by other jurisdictions. The Contra Costa Fire Protection District is the responsible outside agency managing fires in the Martinez Planning Area.

The Martinez Police Department coordinates emergency services for the City of Martinez. The Police Department practices the Standardized Emergency Management System (SEMS) model of emergency management as required by the State of California. In the event of an emergency, the Martinez Police Department will obtain and coordinate the necessary resources both within the City of Martinez and from other sources including federal, state, and local jurisdictions. Personnel from the Martinez Police Department participate in ongoing training and exercises in emergency management. The Police Department maintains an emergency operations center (EOC). It contains an emergency computer network, auxiliary telephones, and equipment to help run essential city services in the event of an emergency. The location of the Martinez Police Department is shown on Figure 8-4 and Figure 8-5.

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Martinez Police *(Source: Kevin Murray)*

Emergency Operations Plan

The City's Emergency Operations Plan (EOP) identifies the City of Martinez's emergency planning, organization and response policies and procedures. The City's EOP: 1) addresses the City's responsibilities in emergencies associated with an "all hazards" approach in managing natural disasters and human-caused emergencies; and 2) provides a framework for coordination of response and recovery efforts within the City in coordination with local, state, and federal agencies, while maintaining the flexibility needed to adapt to various situations that arise. The EOP meets the requirements of Contra Costa County's policies on Emergency Response and Planning, the Standardized Emergency Management System (SEMS) Operational Area Response, the National Incident Management System (NIMS) and defines the primary and support roles of City agencies and departments in after incident damage assessment and reporting requirements. The EOP includes a hazard analysis and probability matrix describing the responsibility of each department based on each identified hazard or threat. The City of Martinez's EOP is periodically reviewed by the Police Department and updated as required to keep abreast of the most current procedures, protocols, and standards.

The City also has established prearranged emergency response procedures, identified evacuation routes, and executed mutual aid agreements for emergency assistance within the Martinez City limits. Mutual aid assistance from the military is also available through the

California Emergency Management Agency upon exhaustion of law enforcement resources when it is needed to supplement, but not substitute for, local civil operations.

Martinez CERT *(Source: Kevin Murray)*

Emergency Operations Center

In the event of a large-scale disaster the City's Emergency Operations Center (EOC) would be activated. The EOC is in the Police Department Branch of Martinez City Hall at 525 Henrietta Street. If necessary, additional EOC locations can be set up to assist. The EOC will remain the main operations center while other public facilities may be used. In addition, the American Red Cross has a national charter to establish post-disaster emergency shelters, and would coordinate with the City to use public facilities as emergency shelter if necessary.

Emergency preparedness planning recognizes that in the first 72 hours after a major disaster, residents must be self-sufficient. Disaster preparedness involves planning efforts by local government, private organizations, and local groups to identify resources, provide public awareness, and formulate plans about what to do in an emergency.

The City has established a Community Emergency Response Team (CERT) program to help residents prepare. The goals of the CERT program are to enable neighborhood or workplace teams to prepare for and respond effectively to an event until professional responders arrive, to provide a link between neighborhood or workplace teams and professional responders, and

to integrate CERT Zones into the community. CERT members are then integrated into the emergency response capability for their area.

The City has developed a structure and process to prepare and carry out plans for the protection of people and property within the City in the event of an emergency. Martinez Municipal Code Title 14 establishes a Disaster Council that is charged with developing emergency plans and coordinating emergency functions of the City with other public agencies, organizations, and affected community members. The City has also developed a process to evaluate the condition and safety of a structure for continued occupancy after a natural or manmade disaster. Martinez Municipal Code Chapter 15.10 establishes placards to be used to identify the inspection status of buildings and the permitted use of the building.

Emergency Evacuation Routes

The City of Martinez emergency preparedness manual provides policies and procedures for the evacuation, dispersal, or relocation of people from hazardous areas during natural disasters to less threatened areas.

8.9 | HAZARDOUS MATERIALS

The Martinez area has a high risk of future hazardous materials incidents. Surrounded by a heavy concentration of petroleum and chemical processing plants (some of which are located within or adjacent to the Concord-Green Valley Fault), the Martinez area may be subject to the occurrence of accidental releases of dangerous substances from a variety of sources. Further, hazardous chemicals are transported into and out of the area daily utilizing various transportation routes and systems. These include: Interstate 680, Highway 4, some City and Contra Costa County streets; the Union Pacific and BNSF Railroads; access through San Pablo Bay, Carquinez Straits, and Suisun Bay; Buchanan Field; and petroleum and natural gas pipelines and pump stations. In the event of a hazardous materials emergency, the City's Emergency Response Plan specifies the primary responsibilities of responding agencies, based on the Contra Costa County management system for response to hazardous materials spills.

Beginning in the 1970s, government at the federal, state and local levels became increasingly concerned about the effects of hazardous materials on human health and the environment. Numerous laws, agencies and regulations were developed to investigate and mitigate these effects, resulting in regulation of the storage, use, transport and disposal of hazardous materials and waste.

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Hazardous Materials Programs and Agencies

In California, the U.S. Environmental Protection Agency (U.S. EPA) has granted the California Environmental Protection Agency (CalEPA) enforcement authority for management of hazardous materials. Locally, the Hazardous Materials Programs of Contra Costa Health Services (CCHS) has been granted responsibility for implementation and enforcement of many hazardous materials in Contra Costa under the Certified Unified Program Agency (CUPA).

Certified Unified Program Agencies (CUPAs) and Program Agencies (PAs) throughout the state created a partnership and formed the California CUPA Forum. Together, members of the California CUPA Forum and representatives of local, state and federal agencies established the Unified Program Administration and Advisory Group (UPAAG) to effectively address policy decisions, education and problem–solving.

The Unified Program consolidates the administration, permit, inspection, and enforcement activities of the following environmental and emergency management programs:

- Aboveground Petroleum Storage Act (APSA) Program;
- Area Plans for Hazardous Materials Emergencies;
- California Accidental Release Prevention (CalARP) Program;
- Hazardous Materials Release Response Plans and Inventories (Business Plans);
- Hazardous Material Management Plan (HMMP) and Hazardous Material Inventory Statements (HMIS) (California Fire Code);
- Hazardous Waste Generator and On-site Hazardous Waste Treatment (tiered permitting) Programs; and
- Underground Storage Tank Program.

State agency partners involved in the implementation of the Unified Program are responsible for setting program element standards, working with CalEPA to ensure program consistency. and providing technical assistance to CUPAs and PAs. The following state agencies are involved with the Unified Program:

- **California Environmental Protection Agency (CalEPA):** The Secretary of CalEPA is directly responsible for coordinating the administration of the Unified Program and certifying Unified Program Agencies. To date, the Secretary has certified 83 CUPAs, which are accountable for carrying out responsibilities previously handled by approximately 1,300 different state and local agencies.

- **Department of Toxic Substances Control (DTSC):** DTSC provides technical assistance and evaluation for the hazardous waste generator program including on-site treatment (tiered permitting).

- **Governor's Office of Emergency Services (Cal OES):** Cal OES is responsible for providing technical assistance and evaluation of the Hazardous Material Release Response Plan (Business Plan) and the Area Plan Programs.

- **CAL FIRE-Office of the State Fire Marshal (CAL FIRE-OSFM):** CAL FIRE-OSFM is responsible for ensuring the implementation of the Hazardous Material Management Plan (HMMP) and Hazardous Materials Inventory Statement (HMIS) and the Aboveground Petroleum Storage Act (APSA) Programs. The HMMP and HMIS Program is closely tied to the Business Plan Program.

- **State Water Resources Control Board (SWRCB):** SWRCB provides technical assistance and evaluation for the underground storage tank program in addition to handling the oversight and enforcement for the aboveground storage tank program.

8.10 | AIRPORT SAFETY

Typical resident concerns relating to airport operations include those related to aircraft crash hazard, jet exhaust odors, and other types of air and water pollution. In addition to these safety issues addressed below, noise is of concern to residents. For a discussion of airport noise, see the Noise & Air Element.

Airports Near Martinez

Buchanan Field Airport, located on a 495-acre site in an unincorporated area of north central Contra Costa County, is owned and operated by the County and administered by the County Public Works Department. The airport borders the cities of Concord and Pleasant Hill and the unincorporated community of Pacheco. The Martinez area lies to the northwest. Formal policy-making authority over operation of the airport is the responsibility of the Contra Costa County Board of Supervisors. The Board has established an Aviation Advisory Committee to make recommendations on aviation policy within the County. The committee membership includes representatives of the five County Supervisors, the County Airport Land Use Commission (ALUC), the cities of Concord and Pleasant Hill, Diablo Valley College, Fixed Base Operators Association, and local residents.

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Buchanan Field Airport is a general aviation airport without scheduled commercial air service. Although scheduled air carrier service by Pacific Southwest Airlines (PSA – later USAir) was introduced in 1986, it was discontinued in 1992. As of 2022, there are no plans to re-introduce scheduled commercial air service. Private semi-commercial airlines with unscheduled small jet aircraft may use the airport.

Flight Paths, Height Limits, and Safety Zones

Martinez area residents are subject to small aircraft overflights from operations at Buchanan Field Airport. Traffic patterns vary at Buchanan Field Airport, depending on whether aircraft are moving under Visual Flight Rules (VFR) conditions or during Instrument Flight Rules (IFR) conditions. During VFR conditions, the pattern altitude above mean sea level is determined for light aircraft and for heavy aircraft. During IFR weather, flight altitude may have a lower ceiling. Approaches also differ depending on whether the aircraft are general aviation and commuter flights versus air carrier and business jets.

The maximum allowable structural height limits are defined in the ALUC Land Use Compatibility Plan in accordance with Part 77 of the Federal Aviation Regulations. These limits have been designed to ensure safety where buildings or other structures (such as chimneys, landscaping and antennae) would intrude into needed airspace. Approximately the eastern third of the Martinez area is affected by height limits of some sort. Height limits especially apply along the higher elevations (above 173 feet) east of Morello Avenue. The City's current height restrictions established by the Martinez Zoning Ordinance are consistent with these limitations.

Safety (crash hazard) zones are also designated by the ALUC. Only a relatively small portion of the Martinez area is within these designated safety zones, specifically within the Martinez Sphere of Influence at the northern end of the Buchanan Field Airport runways along State Route 4.

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8.11 | PUBLIC SAFETY ELEMENT GOALS, POLICIES, AND MEASURES

GOAL PS-G-1: Minimize the risks associated with seismic and subsidence activity.

Policy PS-P-1.1: Assure existing and proposed structures are designed to contemporary standards for seismic safety.

Policy PS-P-1.2: In areas with identified geotechnical hazards, development shall conform to the mitigation measures identified in a site-specific geotechnical report and/or the project and/or site shall be modified to respond to the site's hazards and conditions.

GOAL PS-G-2: Minimize risks of property damage and personal injury posed by geologic and seismic hazards.

Policy PS-P-2.1: Continue to use structural design criteria, codes, and other programs and policies to protect the public from seismic effects, such as liquefaction, seismic response of unconsolidated geologic formations, collapse-hazard buildings, and other seismic-induced failures of existing structures.

Measure PS-I-2.1a: Enforce requirements of the California Building Code, including seismic design provisions, as part of the building permit issuance and inspection process.

Measure PS-I-2.1b: Adopt updated versions of the California Building Code to address new technical and structural requirements that improve safety.

Measure PS-I-2.1c: Continue to utilize the latest reference material (hazard maps, data files, inventories, previous studies, etc.) to identify sites where additional study or mitigation measures are needed.

Measure PS-I-2.1d: Establish procedures and requirements when further studies are needed for a proposed development (geotechnical review procedures, flooding, potentially hazardous materials or soils, etc.).

Measure PS-I-2.1e: Incorporate recommendations and mitigation measures into site design and construction as part of project review/approval.

Measure PS-2.1.f: Include liquefaction potential as a potential development constraint within the Marina and Waterfront Trust Land Use Plan.

GOAL PS-G-3: Reduce risks associated with seismic and subsidence activity.

Policy PS-P-3.1: Consider prohibiting construction of buildings, roads, and utilities in landslide-prone hillsides.

Measure PS-I-3.1a: The City may deny applications for development on excessively steep hillsides where slope stability mitigations are not deemed feasible by the City Engineer and where a significant hazard to City residents may result from construction of a proposed development.

Measure PS-I- 3.1b: Require new development and redevelopment projects in hillside areas or areas subject to subsidence to submit a geologic investigation and a report by a qualified engineering geologist with application materials. The reports shall address potential for slope failure, soil subsidence, and related geologic events, and recommend measures to minimize hazards.

Measure PS-I-3.1c: In areas with identified geotechnical hazards, development shall conform to geotechnical report mitigation measures and/or project and site modifications to respond to site-specific hazards and conditions.

Measure PS-I-3.1d: Require the use of drought-tolerant plants in hillside areas to reduce excessive watering of hillsides.

Measure PS-I-3.1f: Include site planning and building design features that reduce potential impacts from geologic hazards in the City's Design Guidelines, including provisions to limit damage to structures caused by subsidence and accepted grading practices on hillsides.

Measure PS-I-3.1g: Condition subdivision and lot line adjustment approvals to assure that lots on hillsides are large enough to provide flexibility in finding a stable buildable site and driveway location.

Policy PS-P-3.2: Study on a site-specific basis, the density, suitability, and selection of appropriate construction techniques in those areas where moderate soil limitations are present.

Policy PS-P-3.3: Discourage, for reasons of public health, the use of septic tanks, tile filter fields, or sewerage ponds in areas where soil conditions constitute a severe limitation for such practices.

Policy PS-P-3.4: Support efforts by state and regional agencies to promote public awareness of potential geologic and seismic hazards.

Policy PS-P-3.5: New development and redevelopment projects with the potential for geological hazards, such as slope failures or soil subsidence, shall be subject to geotechnical evaluation prior to approval.

Policy PS-P-3.6: Require that soils reports concerning hillside development are subject to peer review.

Policy PS-P-3.7: Conduct landslide repair operations in conjunction with new development.

Measure PS-I-3.7a: Where known landslide areas exist, require comprehensive landslide mitigation actions to improve slope stability. This mitigation can include, with affected property owner support, landslide repair extending beyond the boundaries of a proposed development project site. As part of the review and approval of development and public works projects, the planting of vegetation on unstable slopes to protect structures at lower elevations or other appropriate measures shall be incorporated into the project design. Native plants may be required for landscaping in areas with landslide potential to eliminate the need for supplemental watering and to reduce the risk of landslide.

Policy PS-P-3.8: Maintain current information on seismic hazards and landslides.

Measure PS-I-3.8a: Develop and periodically update City maps and information on seismic and landslide hazards for use in evaluating development proposals.

Goal PS-G-4: Protect citizens of Martinez from potential fire hazards.

Policy PS-P-4.1: Perform necessary maintenance on open space brush areas that are susceptible to burning.

Measure PS-I-4.1a: Work with Contra Costa County Fire Protection District to support and consider providing fire safety demonstrations at public schools, civic and local organizations, businesses, industries, institutions and public gatherings, including outreach to at-risk populations.

Measure PS-I-4.1b: Review current building and planning codes for any needed updates and require new developments and renovations to comply with the California Building Code, Fire Code, and local ordinances for construction and adequacy of water flow and pressure, ingress/egress and other measures for fire protection.

Policy PS-P-4.2: Prevent the invasion of grassland by Baccaharis (a genus of perennials and shrubs that are highly flammable) by retaining grazing on publicly owned rangelands and integrating grazing practices within developed areas.

Policy PS-P-4.3: Continue to work with Contra Costa County Fire Protection District to make Martinez more resilient to fire hazards.

Measure PS-I-4.3a: Work with Contra Costa County Fire Protection District to develop emergency notification and evacuation procedures as part of the City's emergency response plan that is updated at least every 5 years.

Policy PS-P-4.4: Work with Contra Costa County Fire Protection District to promote public awareness of fire hazards and safety measures, including outreach to at-risk populations, and identification of low risk areas for temporary shelter and refuge during wildfire events.

Policy PS-P-4.5: Review, amend and update, at regular intervals, all relevant City codes and ordinances to incorporate the most current knowledge and highest standards for fire safety.

Policy PS-P-4.6: Encourage the use of fire-retardant vegetation for landscaping, especially in high fire hazard areas.

GOAL PS-G-5: Reduce fire hazards Citywide.

Policy PS-P-5.1: Require fire safe construction practices, such as fire preventive site design, landscaping and building materials, and installation of sprinklers on new development and redevelopment projects.

Policy PS-P-5.2: Encourage landscaping maintenance programs to reduce potential fire hazards in the hills, wildland areas, and urban interface.

Policy PS-P-5.3: Reduce fire hazard risks in existing developments by ensuring that private property is maintained to minimize vulnerability.

Measure PS-I-5.3a: Implement requirements for non-combustible roofs and exterior siding in high fire areas. Continue to enforce regulations related to fire resistant construction, sprinkler systems, and early warning fire detection system installation.

Measure PS-I-5.3b: Through the project review process, continue to ensure that landscaping, lighting, building siting and design, adequate water pressure and peak load storage capacity, and building construction materials reduce the opportunity for fire hazards.

Measure PS-I-5.3c: Continue to require access for emergency vehicles and firefighting equipment on all new development and redevelopment projects. The City shall also identify the feasibility of constructing additional emergency access improvements for existing developments that do not meet minimum road standards for emergency equipment, such as:

a) Additional vehicle pull outs at key hillside locations.

b) Limiting or restricting on-street parking at key hillside locations.

c) Potential for construction of new or improved emergency access routes.

d) Roadside clearance improvements.

Measure PS-I-5.3d: Continue to implement the Contra Costa Fire Protection District Fire Code and *Contra Costa County Wildfire Protection Plan* including measures for defensible space, firefighting access, and construction standards.

Measure PS-I-5.3e: Periodically update and adopt CALFIRE maps identifying fire hazard areas in Martinez.

Measure PS-I-5.3f: Ensure the location of new public facilities, such as schools and hospitals, are not located in Fire Hazard Severity Zones, and, if they are, in the event of a fire they can safely evacuate and or operate.

Measure PS-I-5.3g: Continue to consider the requirement of vegetation management plans in all new development. The City shall also identify the feasibility of other vegetation management options, including:

a) Increased landscaping safety through elimination of use of fire-hazardous plants.

b) Use of non-prolific landscaping species.

c) Requiring project proponents in hillside areas to evaluate and upgrade as necessary fire flows and water supplies to hillside areas.

Measure PS-I-5.3h: Continue to require use of construction materials that decrease fire hazards in new developments in hillside areas, including mandatory use of spark arresters on chimneys. Include development standards per the Sstatewide Fire Safe Regulations (see CCR, Title 14, Sections 1270 et seq.).

Measure PS-I-5.3i: Require the use of fire-safe planting materials in landscape plans for new development, including the use of non-prolific species. Include development standards requiring the same in the Design Guidelines.

Measure PS -I- 5.3j: Provide information on methods for reducing fire hazards through the City's website and newsletter, including information on clearing of plant debris and combustible materials, use of fire-safe landscaping and defensible space, and modifying buildings to make them fire-resistant.

Measure PS-I-5.3k: Include provisions for vegetation clearance and maintenance for all private roads and property in conditions of approval for new development.

Measure PS-I-5.3l: Working with the Contra Costa County Fire Protection District, identify fire defense zones where firefighters can control wildfires without undue risks to their lives, and areas where firefighter safety prohibits ground attack firefighting.

Measure PS-I-5.3m: Maintain fuel breaks and other fire defense improvements on public property and require similar measures for private maintenance of private property.

Policy PS-P-5.4: Work with the Contra Costa Fire Protection District to ensure adequate fire suppression resources in the local responsibility areas, and coordination with CALFIRE for state responsibility areas where wildfires may affect both areas.

Measure PS-I-5.4a: Pursue establishing eligibility for State grant funds for fire prevention and suppression by applying to become a Fire Risk Reduction Community through the State Board of Forestry and Fire Protection.

GOAL PS-G-6: Avoid and minimize fire risk in high fire hazard areas.

Policy PS-P-6.1: Require new development to incorporate design measures that enhance fire protection in High and Very High Fire Hazard Severity Zones as identified in Figure 8-4 and Figure 8-5. This shall include but is not limited to incorporation of fire-resistant structural design, use of fire-resistant landscaping, and fuel modification around the perimeter of structures.

Measure PS-I-6.1a: Where legally permissible, require approval of parcel maps and tentative maps in High and Very High Fire Hazard Severity Zones as identified in Figure 8-4 and Figure 8-5 to be conditioned upon meeting the SRA Fire Safe Regulations and the Fire Hazard Reduction Around Buildings and Structures Regulations regarding emergency access and egress, signing and building numbering, emergency water standards, fuel modification standards, and fire equipment access and defensible space (California Code of Regulations Title 14, Division 1.5, Chapter 7, Subchapter 2, Articles 1-5 and Subchapter 3, Article 3)

Measure PS-I-6.1b: Require existing and proposed development in High and Very High Fire Hazard Severity Zones as identified in Figure 8-4 and Figure 8-5 to maintain defensible space in compliance with Fire Hazard Reduction Around Buildings and Structures Regulations (California Code of Regulations Title 14, Division 1.5, Chapter 7, Subchapter 3, Article 3).

Measure PS-I-6.1c: Work with the Diablo Fire Safe Council and the Contra Costa County Fire Protection District to implement and periodically update the *Contra Costa County Wildfire Protection Plan*.

Policy PS-P-6.2: Require fire protection plans for development in areas designated as Very High Fire Severity Hazard Zones by the California Department of Forestry and Fire Protection.

Measure PS-I-6.2a: Upon receipt of a transmittal by the Director of the State Department of Forestry and Fire Protection, of maps, information, and recommendations for establishing very high fire hazard severity zones, adopt an ordinance designating the zones and transmit the ordinance to the State Board of Forestry and Fire Protection and Contra Costa County Fire Protection District, to implement the requirements of Government Code Section 51179.

Measure PS-I-6.2b: Include in the fire protection plans for development in areas designated as very high fire hazard severity zones, annual weed abatement surveys and abatement measures.

Policy PS-P-6.3: Discourage new residential development in areas designated as Very High Fire Hazard Severity Zones by the California Department of Forestry and Fire Protection.

Policy PS-P-6.4: Prioritize development in areas with sufficient water supply infrastructure and road networks that provide adequate fire equipment access and multiple evacuation routes.

Policy PS-P-6.5: Maintain existing water supply infrastructure for firefighting and plan for adequate future water supplies.

Policy PS-P-6.6: Establish mitigations for properties in Very High Fire Hazard Safety Zones with restricted and single points of access including parking restrictions and investigating the feasibility of establishing special assessment districts to improve road capacity, and adequate water supply.

Measure PS-I-6.7a: In cooperation with the Contra Costa County Fire Protection District, establish CERT training and public education for residents in areas lacking two access points for evacuation procedures.

GOAL PS-G-7: Minimize feasible risks to life and property resulting from flooding and flood induced hazards.

Policy PS-P-7.1: Prohibit new buildings in the 100-year flood zone as determined by the Federal Emergency Management Agency (FEMA) and as shown on the FEMA Flood

Insurance Rate Maps (FIRM) unless sufficient mitigation can be provided, or the area is removed from the flood zone.

Measure PS-I-7.1a: Enforce the City's existing flood control ordinance and regulations, amending them as necessary to conform to the National Flood Insurance Program criteria as appropriate.

Measure PS-I-7.1b: Evaluate potential impacts to the flood control system during the environmental review process for new development. Hydrologic studies may be required to help determine potential impacts.

Measure PS-I-7.1c: Facilitate creek restoration throughout the City to help mitigate the effects of flooding.

Measure PS-I-7.1d: Limit the amount of impervious coverage by new development or existing developments during improvements to reduce potential hazards of excessive runoff. Strongly encourage pervious pavement for driveways and other hardscape.

Measure PS-I-7.1e: Continue to coordinate with FEMA and other agencies in the evaluation and mitigation of future flooding hazards that may occur as a result of sea level rise.

Measure PS-I-7.1f: Require individual development projects located in areas subject to flooding to reduce or alleviate flood hazard conditions through preparation of hydrological studies and incorporation of mitigation measures. Individual development project mitigation shall demonstrate, through qualified engineering analyses, that no adverse flooding impacts are created by development on upstream and downstream properties in the project vicinity. Compliance requirements shall be consistent with those prescribed in the Municipal Code, including the preparation of a storm water control plan, and construction requirements set forth in Section 15.30 - Floodplain Management

Policy PS-P-7.2: Design new developments to minimize hazards associated with flooding and limit the amount of runoff that contributes to flooding.

Measure PS-I-7.2a: Require new development to demonstrate existing and proposed drainage facilities both on and off site are sized to accommodate project storm runoff and to prevent off-site increase in peak runoff rates and flood elevations.

Measure PS-I-7.2b: When feasible, promote the use of permeable paving or similar improvements in constructing patios, walkways, paths, driveways, and parking areas as a means of increasing natural percolation while reducing impacts to the City's storm drainage system.

Measure PS-I-7.2c: Require new development to construct necessary infrastructure improvements to support proposed projects and dedicate to the City or include appropriate ongoing maintenance mechanism, as determined appropriate by the review authority.

Measure PS-I-7.2d: Require new development to maintain drainage infrastructure improvements serving such development.

Policy PS-P-7.3: Continue to budget Capital Improvement Funds for flood control improvements as appropriate.

Measure PS-I-7.3a: Prepare annual budget requests to implement priorities and projects relating to flood protection as appropriate.

Policy PS-P-7.4: Work with FEMA to periodically update the City's FEMA flood maps.

Measure PS-I-7.4a: Utilize FEMA's Cooperating Technical Partners Program to update the City's Flood Insurance Rate Maps.

Policy PS-P-7.5: Use local plans and groups to help identify flooding hazards and mitigation options.

Measure PS-I-7.5a: Continue to implement and periodically update the 2018 Local Hazard Mitigation Plan, consistent with the requirements of FEMA.

Policy PS-P-7.6: Require construction of storm drainage facilities and Low Impact Development (LID) techniques for new development.

Measure PS-I-7.6a: As a condition of approval for new development and redevelopment of existing sites, require storm water detention or retention facilities (on- or off-site), if necessary, to prevent flooding due to runoff or where existing storm drainage facilities are unable to accommodate increased storm water drainage.

Measure PS-I-7.6b: Consider requiring the use of native or compatible non-native plant species indigenous to the site vicinity as part of the discretionary review of proposed developments.

Measure PS-I-7.6c: Require the use of innovative storm drainage facilities such as bioretention, rain gardens, and pervious pavement where appropriate and feasible.

Policy PS-P-7.7: Continue to implement flood hazard mitigation measures for areas subject to flooding.

Measure PS-I-7.7a: Employ drainage infrastructure improvements as appropriate and continue maintenance activities as a collective program solution to flooding problems in areas subject to flooding, subject to funding constraints.
Policy

Policy PS-P-7.8: Allow the use of flood control and prevention measures for individual development applications where determined to be feasible and supported by qualified engineering documentation.

Measure PS-I-7.8a: Review development applications for appropriate engineering measures to mitigate flood hazards. New development shall pay applicable drainage fees.

Measure PS-I-7.8b: Coordinate with the Contra Costa Flood Control and Water Conservation District to identify stormwater and flood impacts associated with development and infrastructure projects, and to ensure that capital improvement projects that address regional drainage and flood control facilities are programmed and implemented.

Policy PS-P-7.9: Utilize Best Management Practices to prevent stormwater pollution from construction-related actions.

Measure PS-I-7.9a: Continue to coordinate with Contra Costa County National Pollutant Discharge Elimination System (NPDES) planning efforts. Continue implementation of the Regional Water Quality Board requirements for the San Francisco region for the Municipal Regional Stormwater NPDES permit, most importantly Section C.3 new development and redevelopment section.

Policy PS-P-7.10: Coordinate with the East Bay Regional Parks District and the Contra Costa County Flood Control and Water Conservation District to define evacuation routes, and efficiently evacuate shoreline parks and facilities during potential tsunami and seiche events.

Policy PS-P-7.11: Unless otherwise mitigated, require new structures to be located outside of the tsunamic and seiche inundation zone to the greatest extent feasible.

Policy PS-P-7.12: Coordinate with agencies responsible for the maintenance and monitoring of Martinez Dam to ensure that dam infrastructure is maintained and enhanced to withstand potential failure during an earthquake.

GOAL PS-G-8: Increase community awareness of flooding hazards.

Policy PS-P-8.1: Implement a public outreach program to increase public awareness of stormwater management issues and techniques for residents to mitigate stormwater issues on their property.

Measure PS-I-8.1a: Using the City's website and newsletter, inform the public of areas subject to flooding, steps they can take to reduce potential property damage, and evacuation procedures to be followed in the event of a flooding emergency.

Measure PS-I-8.1b: Promote LID and other storm water management design techniques through public education and outreach. Provide information and tools for residents to implement these design techniques on their property.

Policy PS-P-8.2: Work closely with Contra Costa County in implementation of all applicable National Pollutant Discharge Elimination System (NPDES) requirements relative to storm drainage and stormwater runoff.

GOAL PS-G-9: Acquisition of funds for construction of flood control measures.

Policy PS-P-9.1: Aggressively pursue sources of state and federal funding for flood control and storm drainage improvements.

Measure PS-I-9.1a: City staff will regularly pursue funding for flood control and storm drainage improvement and maintenance activities.

Measure PS-I-9.1b: Coordinate flood hazard mitigation efforts with Contra Costa County to seek compliance with the Disaster Management Act 2000 to ensure eligibility for funding through FEMA grant programs.

Measure PS-I-9.1c: Pursue funding for adequate protection from sea level rise and continued subsidence and construction in areas threatened by sea level rise and/or settlement.

GOAL PS-G-10: Minimize risks to life, property, the economy, and the environment resulting from climate change impacts, including sea level rise and extreme heat events.

Policy PS-P-10.1: Prepare for and respond to the expected impacts of climate change.

Measure PS-I-10.1a: Incorporate the projected impacts of climate change, including sea level rise and extreme heat and storm events, in the City's Local Hazard Mitigation Plan, the next update of the Housing Element and Emergency Operations Plan, and the Marina Waterfront Plan.

Measure PS-I-10.1b: Select, prioritize, and implement, as feasible, adaptation responses identified in the Adapting to Rising Tides: Contra Costa County Assessment and Adaptation Project to adapt to sea level rise and build resiliency.

Measure PS-I-10.1c: Incorporate the likelihood of climate change impacts into City emergency response planning and training.

Measure PS-I-10.1d: Coordinate with Contra Costa County Flood and Conservation District, Contra Costa County Fire Protection District, East Bay Regional Park District, and other relevant organizations to address climate change impacts and develop adaptation strategies. Address fire prevention and protection, flooding and severe storms, extreme heat events, public health, and the health and adaptability of natural systems, including water and biological resources.

Measure PS-I-10.1e: Consider the potential for sea level rise when processing development applications that might be affected by rising sea levels, including current

recommendations and best available sea level rise and inundation projections from sources such as the California Natural Resources Agency, the California Ocean Protection Council, Adapting to Rising Tides, and the Atmospheric Administration (NOAA).

Measure PS-I-10.1f: Incorporate locations and operations responsibility for establishing cooling centers for extreme heat events as part of the next update of the City's Emergency Operations Plan.

Policy PS-P-10.2: Consider climate change implications, including sea level rise, when approving new projects and planning for growth, facilities, and infrastructure improvements in areas potentially affected by climate change.

GOAL PS-G-11: Be prepared to act in emergency situations.

Policy PS-P-11.1: Use the City's Emergency Response Plan as the guide for emergency management in Martinez.

Measure PS-I-11.1a: Continually evaluate response time and make improvements to equipment and personnel when necessary to ensure goals.

Measure PS-I-11.1b: Periodically review the adequacy of training exercises and facilities to evaluate the need for improvements.

Measure PS-I-11.1c: Evaluate the City's Emergency Operations Center on an annual basis to verify that it is adequately equipped.

Measure PS-I-11.1d: Maintain and update the City's Emergency Response Plan on a regular basis, designating emergency shelters and evacuation routes.

Measure PS-I-11.1e: Evaluate evacuation routes for their capacity, safety, and viability under a range of emergency scenarios.

Policy PS-P-11.2: Encourage critical public facilities to remain operative during emergencies.

Policy PS-P-11.3: Promote greater community awareness and preparedness by working with business associations, homeowners' associations, community groups, and utility providers, including outreach to at-risk populations.

Measure PS-I-11.3a: Provide relevant community groups and businesses with an overview of the City's Emergency Response Plan and periodically inform them of updates to the Plan when necessary.

Policy PS-P-11.4: Encourage coordination of emergency drills with the Contra Costa County Fire Protection District, County Sheriff, and the City Police Department, so that the Plan's implementation during an emergency will happen smoothly.

(Source: Kevin Murray)

GOAL PS-G-12: Provide effective, efficient, and immediately available Community Preparedness programs response in the event of a natural or man-made disaster.

Policy PS-P-12.1: Maintain efficient and effective City government operations in case of any catastrophic emergency or disaster.

Measure PS-I-12.1a: Provide annual training for City employees and update the emergency preparedness plan.

Measure PS-I-12.1b: Conduct seminars and make public presentations on personal, family and neighborhood emergency preparedness when possible.

Measure PS-I-12.1c: Encourage public participation in the Community Emergency Response Team (CERT) program.

Policy PS-P-12.2: Maintain a current disaster management operations plan and adequately train personnel, including City employees.

Measure PS-I-12.2a: Utilize the City's Disaster Council as needed to coordinate the utilization of resources and evaluate the safety and condition of structures following wildfire events and other man-made and natural disasters.

GOAL PS-G-13: Minimize as feasible risks to life, property and the environment resulting from the use, storage, transportation, and disposal of hazardous materials.

Policy PS-P-13.1: Encourage adequate separation between areas that contain hazardous materials and sensitive receptors.

Measure PS-I-13.1a: Through land use policy and text amendments, establish an appropriate buffer between land uses involving hazardous materials and those where the presence of hazardous materials is incompatible.

Policy PS-P-13.2: Recommend that hazardous materials storage and handling areas are designed to minimize the possibility of environmental contamination and adverse off-site impacts.

Policy PS-P-13.3: Coordinate with appropriate local, state, and federal agencies regarding hazardous waste reduction, handling, and disposal.

Policy PS-P-13.4: Require that all processes involving hazardous waste (including its transportation, storage, and disposal) are conducted in a manner that meets or exceeds state and federal standards.

Policy PS-P-13.5: Comply with state law requiring adoption of a Hazardous Waste Management Plan.

Measure PS-I-13.5a: Maintain the Contra Costa Health Service Hazardous Waste Management Plan as the City's Plan.

Policy PS-P-13.6: Actively coordinate with other cities and the county to keep informed and mitigate and/or reduce hazards.

Measure PS-I-13.6a: Maintain information regarding train transport through Martinez by working with the railroad and industrial users to manage transport of hazardous materials within the City boundaries.

GOAL PS-G-14: Reduce the risk of hazards associated with the operation of Buchanan Field Airport.

Policy PS-P-14.1: Continue to work with the County Public Works Department, Aviation Advisory Committee, Airport Land Use Commission (ALUC), the Metropolitan Transportation Commission (MTC), Federal Aviation Administration (FAA), and other relevant agencies to minimize risk to lives and property due to hazards associated with the operation of Buchanan Field Airport.

Measure PS-I-14.1a: Through land use policy, ensure that development takes into account flight paths and reduces height limits and location of structures accordingly.