08 | SAFETY

INTRODUCTION

This Element provides strategies that City staff, residents, developers and business owners can implement to effectively address the natural hazards where the City of Coachella is vulnerable. The goals and policies are long-term measures that reflect the City's desire to deal effectively with natural hazards and provide a safe living environment for the community. The primary objective of the Safety Element, as the policies and actions are implemented over the next 20 years, is to make Coachella increasingly resistant to disasters and become more self-reliant, sustainable and prosperous.

For Coachella to become the most important city in the Valley, it needs to grow responsibly, completely aware and respectful of the natural forces that have shaped this area over the last millennia and are still active today. Several of these forces, including earthquakes, floods, wildfires and severe weather, have the potential to cause substantial damage to the fabric of the community, with resultant significant economic and social dislocation. When (not if) the San Andreas Fault ruptures next, the growth and development of the region has the potential to be delayed for years, if not decades. If the City is well prepared, however, the impact that this earthquake would have on the community could be minor. Preparation for this worst-case scenario will be expensive but money spent in disaster preparedness will be a fraction of what the actual earthquake would cost the City in disaster response and post-disaster recovery. Thus, earthquake-preparedness should be viewed as a worthy and necessary investment.

The characteristics that define Coachella's unique identity – the gently sloping valley underlain by thick, rich soils that make it one of the most productive agricultural regions in the world, and the rounded hills and steep, jagged mountains were formed by movement along the San Andreas fault, the wandering of the Whitewater River during flood stage, and the gentle but constant tug of gravity. Most of the time, these forces have little effect on the environment. The big, landscape-changing events occur intermittently, sometimes only once every generation, or less. As a result, it can be difficult to engender the support necessary from the public and government to take action and prepare for these low-probability but high-consequence events. Coachella, however, recognizes the importance of being proactive and addressing disaster preparedness. It is the responsible thing to do, both for the current community and the generations to come.

When weighing in the effectiveness and cost of disaster preparedness programs, it is helpful to realize many of the action items designed to reduce the community's risk to natural hazards can work seamlessly with other implementation actions of the General Plan. Thus, green buildings that work well in the arid environment can also be earthquake- and fire-resistant. Respect for the preservation of natural landscapes such as steep slopes and springs along the San Andreas Fault will prevent construction on or across features that are natural hazards. Similarly, preservation of the Whitewater River wash as a habitat and corridor for wildlife can prevent the storm-induced flooding of otherwise ill-located structures. Incorporating xeriscaping into landscape design can decrease the fuel loads available for wildland fires, reducing the potential for vegetation fires at the urban-wildland interface. Recycling water can reduce or eliminate the potential for groundwater-withdrawal-induced subsidence. "Green

streets" that allow for the infiltration of stormwater lessen runoff, erosion and sedimentation, and the potential for flooding downstream.

Lastly, it is also helpful to realize that Safety Elements are provisional by scope and definition. The policies and implementation actions are established within a framework that identifies timelines and priorities. As the more critical policies are implemented, emphasis will shift to new priorities. This permits the City to prioritize its use of limited resources over the short- and long-term, while continuously moving forward in its ultimate goal of being disaster resistant. Both the process and the ultimate result will help Coachella realize its goals of being a social and economic leader in the region.

OUR COMMUNITY'S GOALS

The geologically and physically diverse environment that forms the backdrop for the community of Coachella formed after thousands of years of tectonic and climatic forces acting on the area. These forces are ongoing today, with the potential to severely impact the built environment, especially if structures and infrastructure are not designed adequately. When this happens, there is the potential for loss of life, limb and/or property. The goals below reflect the City's fundamental responsibility and desire to protect and preserve the health, safety and welfare of the community.

- **Minimally impacted by seismic shaking and other earthquake-induced hazards.** The San Andreas Fault bisects the City. The section of the fault that extends through Coachella has a high probability of rupturing in the next 30 years. The resulting earthquake will be accompanied by extreme seismic shaking and lateral rupture of the ground that locally may exceed 20 feet. Other earthquake-induced hazards expected in the area include ground deformation due to liquefaction and slope failure. Any of these conditions can result in damage to the built environment, including the collapse of structures. Recognizing and avoiding or mitigating those areas where earthquake-induced ground failure is likely to occur will minimize the impact this earthquake would have on the City.
- **All new habitable buildings and structures are seismically resistant.** Earthquake-induced damage to the built environment, such as the catastrophic failure of structures, can result in large numbers of casualties. We cannot prevent earthquakes from occurring but we can design and build our structures to prevent them from collapsing. Given that an earthquake on the San Andreas Fault has the potential to be the worst-case disaster for Coachella, the City has a strong incentive and desire to become as earthquake-resistant as possible.
- **Older structures are resistant to seismic shaking.** The latest building codes have incorporated many lessons learned from the damaging earthquakes that occurred globally in the 1990s and early 2000s. Building codes are unfortunately not retroactive but we can voluntarily retrofit older structures to be stronger and thus more earthquake-resistant.
- **Infrastructure is resistant to seismic shaking, surface fault rupture and seismically induced ground deformation.** Earthquake scenarios indicate the infrastructure in the region will be damaged extensively by an earthquake on the San Andreas Fault. The water-distribution system especially will be hard-hit but other services, including the transportation network, will also be affected. The Coachella Canal is expected to be damaged by surface fault rupture and ground deformation, with the potential for significant flooding in the Coachella area. Retrofitting these systems is a priority.
- **The community is minimally impacted by geologic hazards.** The geologically young soils that underlie Coachella can be poor foundation materials, susceptible to liquefaction and differential

settlement. Some of the soils are highly expansive or corrosive to metallic objects. All of these conditions, if recognized before construction, can be mitigated effectively with engineering solutions.

- **Potential geologic hazards have been mitigated before construction of new developments.** The City is expanding into the hills to the east of the San Andreas Fault. Slope instability is a potential hazard in this area but can be mitigated through appropriate engineering design.
- **The community is minimally disrupted by flooding and inundation hazards.** Given the arid conditions that characterize Coachella, it can be difficult to recognize the Whitewater River channel and the desert washes, in and at the base of the hills, can carry significant amounts of water during storms, even when those storms do not drop measurable rain. An interconnected, permanent flood control system can prevent flooding in the low-lying areas of the City. Inexpensive but effective seismic strengthening measures can prevent the inundation of low-lying areas downstream of above-ground reservoirs in the event these structures fail during an earthquake.
- **Fire hazards are negligible, the result of effective fire suppression, mitigation and response measures.** Vegetation fires in the Coachella area have historically been small. With the increased encroachment of development into the hillside areas, however, wildland fire may increase in the future, unless effective programs are implemented. These measures include vegetation control, fire-resistant construction and educational programs for homeowners, business owners and motorists. Strengthening of the gas and water distribution systems will limit the potential for devastating fires after an earthquake.
- **Hazardous materials are used minimally.** Recognizing that the production, use, storage, transport or disposal of hazardous materials poses a significant hazard to the community and the environment, the City encourages the use of alternative, non-toxic products as much as possible. If hazardous materials are required, the smallest amounts necessary to get the job done will be used. Facilities that generate, use, or store hazardous materials are not located within the 100-year floodplain, in an area susceptible to seismic or geologic hazards, or near schools, nursing homes, or other facilities with sensitive or special-needs populations.
- **The community is minimally impacted by severe weather.** Strong winds, dust storms, temperature extremes and drought can have short- and long-term impacts on the region's economy and on the health and wellbeing of residents and visitors. Even more severe weather, with higher temperatures, stronger winds, and more intense flooding, could be the norm as a result of global climate change. As part of the process of becoming more sustainable, the City will implement measures to reduce where possible, the effects of severe weather, and respond proactively and effectively when a storm, strong wind, extreme heat or drought affects the region.
- **The community has an effective disaster response and recovery system in place, thus is self-reliant and sustainable.** History shows the Coachella Valley region is susceptible to several different types of natural hazards. Some of these, like an earthquake on the San Andreas Fault, will have a regional impact, whereas others, like slope failures, tend to be contained to a small geographic area. Coachella has developed a disaster preparedness, response, and recovery plan that allows the community to be responsive to any type and size of natural hazard with minimal assistance from outside agencies and neighboring cities.

GOALS AND POLICIES

Goal 1. Earthquake Hazards. A community that is minimally affected by seismic shaking and other earthquake-induced hazards.

Policies

1.1 **Development plan review.** Review all plans for new development to be certain new structures are designed in accordance with the most recent California Building Code adopted by City Council, including the provisions regarding seismic loads, lateral forces and grading.

1.2 **Earthquake-resistant new buildings.** Require all new habitable buildings and structures to be designed and built to be seismically resistant and not built across the trace of an active fault.

1.3 **Strengthened and seismically retrofitted older structures.** Promote the strengthening of older structures to make them more resistant to seismic shaking. This includes encouraging owners of potentially hazardous buildings, such as pre-1952 wood-frame structures, concrete tilt-ups, pre-1971 reinforced masonry, soft-story, multi-family residential buildings and manufactured homes, to assess the seismic vulnerability of their structures and conduct seismic retrofitting as necessary to improve the buildings' resistance to seismic shaking.

1.4 **Strengthened infrastructure.** Promote the strengthening of infrastructure and utilities to make them more earthquake resistant by encouraging the City's utility service providers to identify, evaluate and replace or strengthen, as needed, those sections of their distribution network that are located in areas susceptible to fault rupture, liquefaction or slope instability. This also includes encouraging the City's utility service providers to identify and replace or strengthen those sections of their distribution network in the General Plan area that are the oldest, and therefore more likely to be weathered or corroded.

1.5 **Seismically damaged buildings.** Prohibit any additions or reconstruction of structures damaged by seismic hazards, unless the structure is re-located to a safer area, or it can be demonstrated the proposed project and its occupants can be protected from future, recurrent damage by implementing mitigation measures not present in the original, damaged structure.

1.6 **Liquefaction assessment studies.** Require liquefaction assessment studies be conducted for all projects proposed in areas identified as potentially susceptible to liquefaction (Plate 1-3, Technical Background Report). These studies need to be conducted in accordance with the provisions in the Seismic Hazards Mapping Act and the most recent version of the California Geological Survey's Special Publication 117: Guidelines for Evaluating and Mitigating Seismic Hazards in California.

1.7 **Liquefaction mitigation.** In areas where geotechnical testing shows the sediments are susceptible to liquefaction, require the implementation of mitigation measures as a condition of approval. Liquefaction mitigation measures shall be applied to all habitable structures, bridges, roadways, major utility lines and park improvements to be built in these areas.

1.8 **Seismic hazards map update.** If the California Geological Survey (CGS) develops a Seismic Hazards Zonation Map that includes the City, review the preliminary map for agreement with geotechnical reports filed at the City, work with the CGS to make any necessary changes and adopt the final map as a replacement to the Seismic Hazards Map currently part of the Technical Background Report (Plate 1-3).

1.9 **Inundation review.** Regularly evaluate the above-ground water storage tanks in the General Plan area to assess their potential inundation hazard in the event of catastrophic failure and ensure all tanks are fitted with appropriate seismic safeguards, including shut-off valves, in accordance with the most recent water tank design guidelines.

Goal 2. Geologic Hazards. A community that has used engineering solutions to reduce or eliminate the potential for injury, loss of life, property damage and economic and social disruption caused by geologic hazards such as slope instability; compressible, collapsible, expansive or corrosive soils; and subsidence due to groundwater withdrawal.

Policies

2.1 **Geotechnical investigations.** Require all development proposals in the City to conduct, as a condition of approval, geotechnical and engineering geological investigations, prepared by state-certified professionals (geotechnical engineers and engineering geologists, as appropriate) following the most recent guidelines of the California Geological Survey and similar organizations, that address, as a minimum, the site-specific geologic hazards identified in the Technical Background Report. This includes the hazard of slope failure in, and adjacent to, hillside areas.

2.2 **Mitigated geologic hazards.** Require all new developments to mitigate the geologic hazards that have the potential to have an impact on habitable structures and other improvements.

2.3 **Slope failure mitigation.** Minimize grading and modifications to the natural topography to prevent potential for man-induced slope failures. Where deemed necessary, erect protective devices such as barriers, rock fences, retaining structures or catchment areas.

2.4 **Field inspections.** Conduct routine field inspections during grading and construction to ensure safety practices are being followed and the site is being graded; and new structures are being built in accordance with the most recent California Building Code adopted by the City, in agreement with the approved plans and specifications.

2.5 **Slope failure map updates.** Maintain an updated map of slope failures in the General Plan area to identify slopes where debris flows, surficial mass wasting events, and rockfalls have occurred, especially during wet winters.

2.6 **Learn from past mistakes.** Monitor the losses caused by geologic hazards to existing development and require studies to specifically address these issues, including implementation of measures designed to mitigate these hazards in all future developments in the General Plan area.

2.7 **Damaged buildings.** Prohibit any additions or reconstruction of habitable structures destroyed or damaged by geologic hazards unless the structure is relocated to a safer area or the applicant proves that the remedial measures proposed will mitigate the unsafe geological conditions so the proposed project and its occupants can be protected from future, recurrent damage.

2.8 **Critical facility siting.** Regulate the location of new essential or critical facilities in areas that could be affected by geologic hazards by comparing, during the project feasibility stage, the location of the proposed facilities with the mapped areas in the Technical Background Report identified as susceptible to natural hazards.

2.9 **Groundwater resources protection.** Develop partnerships with the Coachella Valley Water District and adjacent communities to manage the groundwater resources of the region, prevent over-drafting of the aquifers and prevent regional subsidence due to excessive water extraction.

Goal 3. Flood hazards. A community that is minimally disrupted by flooding and inundation hazards.

Policies

3.1 **Hydrological studies.** Require new development proposals to include as a condition of approval, hydrological studies prepared by a state-certified engineer with expertise in these kinds of studies, that assess the impact the new development will have on the flooding potential of existing development down-gradient. The studies shall provide mitigation measures to reduce this impact to an acceptable level.

3.2 **Flood mitigation in repetitive-flooding areas.** Identify repetitive flood problem areas in existing development, prioritize hydrological studies of areas that flood repeatedly during storms and develop feasible engineering solutions to mitigate these sites.

3.3 **Flood mitigation for both existing and new construction.** Require all new developments and redevelopments in areas susceptible to flooding (such as the 100-year floodplain and areas known to flood during intense or prolonged rainfall events) to incorporate mitigation measures designed to minimize or eliminate flood hazards.

3.4 **Flood hazard enforcement.** Continue to enforce City ordinances for flood hazard reduction, tract drainage and stormwater management for all new developments and existing projects undergoing substantial improvements within the FEMA-designated Special Flood Hazard Areas, other areas identified by the state as susceptible to flooding, hillside areas, and other areas known to flood. Mitigation measures may include (but are not limited to) the design of onsite drainage systems connected to the Coachella Valley Stormwater Channel, keeping surface waters within the project area, grading of the sites so that runoff does not affect adjacent properties, and building structures so they are elevated above the anticipated flood levels.

3.5 **Storm drainage facilities.** Maintain, develop and improve where needed, the storm drain facilities (including bridges and other stormwater channel crossings) with an emphasis on those areas in the City that flood repeatedly.

3.6 **Floodplain development.** Promote the use of floodplains as parks, nature trails, equestrian parks, golf courses or other types of recreational facilities that can withstand periodic inundation. In the planned build-out of the City, create an atmosphere of working with nature and the natural processes characteristic of the arid environment.

3.7 **Disaster response plan.** Require all essential and critical facilities (including but not limited to essential City offices and buildings, medical facilities, schools, childcare centers and nursing homes) in or within 200 feet of Flood Zones A and X, to develop disaster response and evacuation plans that address the actions to be taken in the event of storm flooding or inundation due to catastrophic failure of a water reservoir or other water retention facilities such as the Coachella Canal, the Eastside Dike and levees of the Coachella Valley Stormwater Channel.

3.8 **Hazardous material siting.** New facilities that use or store hazardous materials in quantities that would place them in the State's TRI or SQG databases shall not be permitted in the flood zone (Zones A and X) unless all standards of elevation, anchoring and flood proofing have been implemented to the satisfaction of the City and the Riverside County Department Hazardous Materials Division. The hazardous materials must be stored in watertight containers not capable of floating or in flood-proof receptacles or tanks.

3.9 **Storm Ready Program.** Participate in the Storm Ready Program with the National Weather Service, including the monitoring of precipitation and snow levels on the mountains, providing storm watches and warnings in real-time and issuing evacuation notices for the potentially affected neighborhoods in a timely manner.

3.10 **Smart systems.** Encourage the use of technology to identify flood-prone areas and to warn residents and motorists of impending flood hazards.

3.11 **Flood damage.** Prohibit any additions or reconstruction of structures damaged by flooding, unless the structure is relocated to a safer area or can be demonstrated the proposed project and its occupants can be protected from future, recurrent flood damage by implementing mitigation measures not present in the original, damaged structure.

3.12 **Flood Insurance.** Encourage property owners and residents to purchase flood insurance for areas outside of the FEMA-mapped 100-year flood zones, especially in those areas that have experienced flooding in the past.

Goal 4. Fire hazards. A community that is minimally affected by wildland and structure fires.

Policies

4.1 **Vegetation control.** Require the use of vegetation control methods to reduce the hazard of wildland fire.

4.2 **Construction materials.** Require the use of fire-resistant building construction materials to reduce the hazard of structure fires, within the developed areas of the City and at the urban-wildland interface.

4.3 **Sprinkler retrofits.** Encourage owners of non-sprinklered high-occupancy structures to retrofit their buildings to include internal sprinklers.

4.4 **Fire response adequacy.** Ensure, to the maximum extent possible, that fire services, such as firefighting equipment and personnel, infrastructure and response times, are adequate for all sections of the City. To that end, continue to regularly evaluate specific fire hazard areas, and adopt reasonable safety standards, such as adequacy of nearby water supplies, fire-retardant roofing materials, fire-equipment accessible routes, clarity of addresses, street signage and street maintenance.

4.5 **Fire flow tests.** Ensure that annual fire flow tests are conducted, and that any deficiencies found be mitigated as soon as possible.

4.6 **Fire inspections.** Conduct regular inspection of parcels throughout the City, and direct property owners to bring their property into compliance with fire safety standards. This includes enforcing the weed abatement and notification program to reduce the potential for vegetation fires that could occur in vacant or poorly maintained lots, and encourage homeowners to follow fire-safe practices, including maintaining a fire-safe landscape and keeping combustibles (such as fire wood) a safe distance away from all structures.

4.7 **Fire Hydrant Management.** Establish a fire hydrant monitoring and testing program. Explore different funding streams including development impact fees.

Goal 5. Hazardous Materials Management. A community that has reduced the potential for hazardous materials contamination.

Policies

5.1 **Enforcement actions.** Continue to enforce disclosure laws that require all users, generators and transporters of hazardous materials and wastes to identify the materials they store, use or transport.

5.2 **Effective response.** Ensure the City and the county's fire and sheriff departments can respond safely and effectively to a hazardous materials incident in the City, whether as a spill at a permitted facility, a pipeline release or an accident along a section of the I-10 or railroad line that extends across Coachella; ensure all residents, workers and visitors to Coachella are protected from exposure to hazardous materials and waste.

5.3 **Hazardous materials siting.** Prohibit the placement of proposed new facilities that will be involved in the production, use, storage, transport or disposal of hazardous materials near existing land uses that may be adversely affected by such activities. Conversely, prohibit the development of new sensitive facilities (like schools, child-care centers, nursing homes, senior housing, etc.) near existing sites that use, store or generate hazardous materials.

5.4 **Gasoline dispensing facilities.** Avoid siting new sensitive land uses (schools, child-care centers and senior housing) within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater) and vice versa. A minimum 50-foot separation is recommended for other uses.

5.5 **Hazardous materials transport routes.** Identify roadways along which hazardous materials are routinely transported and if schools, medical facilities, child-care centers or other facilities with special evacuation needs are located along these routes, the City, together with these facilities, will identify emergency response actions that can be implemented if a roadway accident results in the unauthorized release of hazardous materials.

5.6 **Hazardous materials on public property.** Reduce or eliminate the use of pesticides and herbicides that can have a negative impact on human health on city properties – especially in parks and publicly accessible open spaces.

5.7 **Green cleaning in public buildings.** Require the City use green and non-toxic cleaning supplies in all public buildings to protect the health of workers and users of the facilities. Encourage school districts, health facilities, youth programs and local business within Coachella to use green and non-toxic cleaning supplies.

5.8 **Non-toxic alternatives.** Encourage residents and businesses to reduce or eliminate the use of hazardous materials, including pesticides and herbicides, by using non-toxic, safer products and methods that do not pose a threat to the environment or by buying and using only the smallest amount of a hazardous substance needed for the job.

5.9 **Green dry cleaning.** Promote and incentivize dry cleaning facilities that use environmentally friendly cleaning processes.

5.10 **Household hazardous waste collection.** Increase awareness in the community about proper disposal/collection of leftover household products, especially those that contain corrosive, toxic, ignitable, or reactive ingredients that are considered to be "household hazardous waste." Require special care for disposal or collection of products, such as paints, cleaners, oils, batteries and pesticides that contain potentially hazardous ingredients.

5.11 **Hazardous materials disposal.** Continue to support the operation of programs and recycling centers that accept hazardous substances, such as paint, paint thinner, used waste oil, etc., such as the City's Drop-Off facility.

Goal 6. Clean Environment. A community protected from the harmful effects of pollution and hazardous materials, hazardous waste and environmental contamination.

Policies

6.1 **Clean drinking water.** Work with the Riverside County Department of Environmental Health and community organizations to educate families about the health risks of drinking from potentially contaminated wells and provide options for the families to obtain safe and clean water.

6.2 **Water funding.** Seek funding to ensure adequate infrastructure and service delivery to provide safe drinking water and access to an adequate wastewater system within Coachella and within the City's sphere of influence.

6.3 **Mold and lead hazards prevention.** Partner with the Riverside County Environmental Health and Public Health Departments to provide education and technical assistance in reducing mold and lead hazards in homes.

6.4 **Agriculture-related hazards.** Protect residents and workers from the sometimes-harsh conditions and potentially harmful consequences of agricultural operations while preserving the vitality of the industry.

6.5 **Worker safety.** Work with the county and community groups to educate agricultural workers, their families and employers about minimizing exposure to pesticides while at work and preventing the spread of harmful pesticides from the field to their homes and families.

6.6 **Buffer zones.** Create buffer zones between agricultural and residential areas, schools and other sensitive receptors to protect community members from pesticides and herbicides.

6.7 **Noticing.** Work with the farms to provide education about and inform nearby residences, schools, businesses, etc. about upcoming pesticide sprays and how to avoid negative impacts.

6.8 **Pesticides on agricultural land.** Create and periodically update a master database of local agricultural land, nurseries and greenhouses that includes, to the extent feasible, information on soil quality, past and present use of herbicides and pesticides, past occurrences of contaminant releases and other historical events that could pose a health risk, so the City has accurate information when considering new development proposals or soil-mitigation projects.

6.9 **Agricultural land project coordination.** Work with the Riverside County Department of Environmental Health and the Agricultural Commissioner's Office on regulating pesticide/hazardous materials upon conversion of an existing agricultural operation. Encourage property owners to coordinate with regulatory agencies concurrently with project design and development. A materials analysis (degree of contamination, scope of treatment, remediation and/or disposal measures) should be considered, initiated and documented in conjunction with the preliminary design, project review and construction. Develop a process to keep adjacent residents informed and protected throughout the stages of development, including the identification and remediation phases.

6.10 **Agriculture soil quality.** Require testing of land previously used for agricultural purposes before new development. If contaminants are present, the soil must be treated and re-tested until levels are adequate, or if necessary, removed and replaced with clean soil, before any development on site.

6.11 **Soil Quality.** Require soil testing for contaminants on sites that have historically, or currently, been exposed to chemical releases. If contamination does exist, require a remediation strategy to reduce or eliminate contamination on site.

6.12 **Conversion to organic farming.** Incentivize the conversion of Coachella's farms to organic methods of agriculture that do not use chemical pesticides and herbicides.

6.13 **Pesticide education to businesses.** Provide education to gardeners and landscape companies that do **business** in Coachella about alternatives to, and safer usage of, toxic pesticides and herbicides.

6.14 **Proximity to pollution sources.** Avoid locating new sensitive uses such as schools, child-care centers, multifamily housing and senior housing in proximity to sources of pollution (e.g., I-10, truck routes, busy roadways and agricultural land where pesticides and chemical fertilizers are used regularly) and vice versa. Where such uses are located in proximity to sources of air pollution, use building design, construction and technology techniques to mitigate the negative affects of air pollution on indoor air quality. For guidance consult with the South Coast Air Quality Management District, CARB's *Air Quality and Land Use Handbook* or other more recent scientific studies or tools.

6.15 **Regional air and water quality.** Track and publicly support regional, state and federal efforts that improve air and water quality to protect human and environmental health and minimize disproportionate impacts on sensitive population groups.

Goal 7. Severe Weather Hazards. A community that is minimally affected by high winds, dust storms, extreme temperatures and drought.

Policies

7.1 **Climate and health indicators.** Monitor local changes in temperature, extreme heat days, heat waves, drought and precipitation patterns to inform policy and planning decisions.

7.2 **Public awareness.** Develop a public awareness program, including educational materials, that provides information on what to do before, during and after a windstorm to protect life and property.

7.3 **Backup energy sources.** Obtain and install backup power equipment for critical facilities to ensure they are functional during a power failure, resulting from a windstorm or earthquake, and ensure the equipment is in working condition at all times.

7.4 **Below ground utilities.** Phase out and replace overhead electric lines with subsurface lines that will not be affected by fallen trees and branches during windstorms.

7.5 **Tree trimming.** Enforce the national guidelines on tree trimming and vegetation management around electric transmission and communication lines to prevent or reduce the potential for felled branches or trees to cause power outages and disrupted communications.

7.6 **Monitor severe weather losses and climate change-related hazards.** Monitor and regularly assess climate vulnerabilities. Create a database to track incidents of windstorms, dust storms and other severe weather events to develop a better understanding of the frequency, magnitude and costs associated with severe weather. Use this knowledge to determine the value of establishing a "bad weather" fund to pay for repairs, cleaning and other direct costs of severe weather. Periodically review the effectiveness of existing plans, programs, codes and ordinances in protecting health and safety

7.7 **Populations at risk.** Identify populations that, due to economic or other circumstances, do not have the resources to cool or heat their living environment during hot summers, or cold winters, and thus may be at risk for temperature-related illnesses or death. During high heat or extreme cold events, check on these individuals, and if necessary, transport them to cooling centers or heated shelters.

7.8 **Cooling centers and air conditioning.** Work with the City's emergency response team and community action partnership of Riverside County to expand access to the drop-in cooling centers for people vulnerable to high heat days. This should also include organizing a transportation-assistance program for individuals without access to vehicles, develop a robust heat warning system and provide up-to-date information to residents about cooling center locations and the health risks of extreme heat.

7.9 **Workers' safety.** Enforce Cal-OSHA's Heat Illness Prevention Program, especially in the agricultural and construction sectors where employees are exposed to extreme heat conditions at outdoor worksites.

7.10 **Wind barriers.** Encourage the preservation and establishment of additional wind barriers in the form of hedges and tree lines to reduce the effects of dust and sand.

7.11 **Best management practices during construction and planting.** Enforce the use of water spray and other mitigation measures to control dust in grading and construction sites and in agricultural fields being prepared for planting. This may include prohibiting earthwork activities at construction sites and farms on windy days.

Goal 8. Disaster Preparedness. A community that has planned for emergency response and recovery from natural disasters, especially from earthquakes, flooding, and fire, and from civil unrest that may occur following a natural disaster.

Policies

8.1 **Local Hazard Mitigation Plan:** Maintain and update on a regular basis, as mandated by FEMA, a Local Hazard Mitigation Plan. Incorporate an assessment of climate change-related hazards in all future Local Hazard Mitigation Plan updates.

8.2 **Emergency response organization:** Maintain and update the emergency response organization consisting of representatives from all City departments, the Riverside County Fire and Sheriff Departments, local quasi-governmental agencies, private businesses, citizens, and other community partners involved in emergency relief and/or community-wide emergency-response services.

8.3 **Ask the climate question.** Consider and plan for climate change-related hazards when conducting disaster preparedness exercises.

8.4 **Regional hospital:** Provide incentives to establish a new hospital in the region that includes extensive redundant systems, including generators and its own water storage, to provide medical emergency services to the area.

8.5 **Mutual aid:** Continue to maintain mutual aid agreements with neighboring cities and the Riverside County Operational Area.

8.6 **Emergency exercises:** Participate in regional and local emergency exercises, such as the Great California ShakeOut, an annual statewide earthquake drill.

8.7 **Maintain critical facilities:** Ensure to the fullest possible extent that, in the event of a major disaster, critical, dependent care and high-occupancy facilities remain functional. The Riverside County Fire Department, in their annual review of these facilities, will encourage owners and operators to maintain alternate emergency exits, emergency evacuation plans, emergency generators and anchor computers, shelving, and other non-structural elements.

8.8 **Sensitive facilities:** Compile and maintain a list of facilities that because of population demands (such as mobility issues, construction type, location relative to a high hazard area or other factors) may have a high risk and specific needs requiring special response during a disaster.

8.9 **Public preparedness:** Enhance public awareness and preparedness by encouraging residents and businesses to store supplies for self-reliance following a disaster. Emergency preparedness kits should include, at a minimum, a seven-day supply of drinking water and food for all members of the household or business, including pets.

8.10 **Earthquake-preparedness educational programs:** Offer educational programs for residents and businesses regarding measures to take before, during, and after an emergency, and involve the public in the awareness of City emergency response plans, resources, risk reduction and mitigation measures.

8.11 **Changing fire hazards.** When reviewing fire hazards, consider the increasing risk of wildfires and consider requiring enhanced fire protection measures.

8.12 **Flood-preparedness educational programs.** Prepare and distribute informational materials to owners of properties within the flood zones (Zones A and X), as well as potential seismically induced inundation areas, regarding the potential for flooding in their area. It would include the potential for flooding of access routes to and from their neighborhoods. Continue to educate and remind the public of the risks of flooding and the uncertainties inherent in the flood hazard mapping.

8.13 **Periodic reminders:** Periodically issue reminders to encourage residents to review and renew their earthquake-preparedness kits and other emergency preparedness materials and procedures.

8.14 **Emergency response training:** Direct select City staff to coordinate with the Riverside County Fire Department and train in NIMS-compliant emergency response procedures to provide assistance as needed during emergency situations. This includes conducting emergency response exercises, including mock earthquake-induced fire-scenario exercises, to evaluate and improve, as needed, the City's ability to respond to the multiple ignitions that an earthquake is likely to generate.

8.15 **Community training programs:** Develop and hold regular training exercises that involve residents as much as possible, through the Community's Emergency Response Team (CERT) program, to empower individuals and neighborhoods to be self-reliant in the aftermath of a natural or man-made disaster.

8.16 **Emergency shelters:** Review potential shelter locations and draw agreements, as needed, with the owners and operators of those facilities. Specific sheltering amenities that each of these facilities can provide, including restrooms and showers, whether cooking can be done on site, and whether family pets are allowed, should be identified so this information is available in advance of a disaster. Identify and procure shelter locations for horses and other large animals.

8.17 **Local preparedness plans:** Continue to support the development of local preparedness plans and multi-jurisdictional cooperation and communication for emergency situations consistent with regional, state (SIMS), and federal standards, guidelines and/or recommendations (NIMS).