COMMUNITY HEALTH & SUSTAINABILITY

8.0

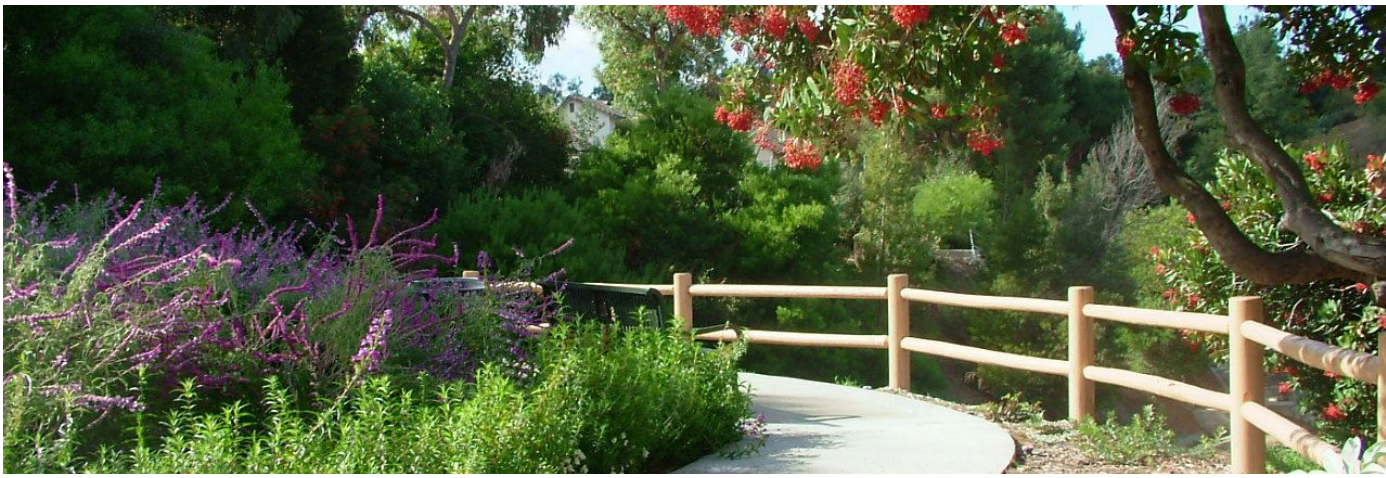
A wide range of health outcomes and risks are influenced by the social and physical environments we inhabit – the places we live, work, learn and play – as well as access to opportunities such as jobs and resources such as services and recreational facilities.

8.1 INTRODUCTION

Health and wellbeing are shared goals of all residents of Diamond Bar, and the City is committed to promoting the welfare of all its residents by improving public health through policies and programs that contribute to a sustainable environment, safe and convenient multi-modal transportation options, access to healthy food, and a strong community. Additionally, the City is focused on building resiliency to adapt to the impacts of climate change, which pose an immediate and growing threat to the health and welfare of Diamond Bar residents, and promoting the reduction of greenhouse gas (GHG) emissions to reduce potential impacts. This Chapter addresses the ways in which the physical environment can influence the long-term health and sustainability of the community, including the topics of environmental justice, active lifestyles, social connection, public health and human services, and climate change in order to strengthen the community's overall long-term resilience. The Climate Action Plan (CAP) associated with the General Plan provides an in-depth discussion of climate change impacts, an inventory of existing and projected GHG emissions, and additional optional strategies to complement policies included in this chapter focused on reducing GHG emissions, resiliency, and adaptation.

RELATIONSHIP TO STATE LAW

Government Code Section 65302 requires that general plans include either an environmental justice element or related goals, policies, and objectives integrated into other elements, that identify any disadvantaged communities within the Planning Area, and provide policies to reduce the unique or compounded health risks facing those communities.



The additional health-related sections of this chapter are not required by State law, but address issues that are important to Diamond Bar. Government Code Section 65303 enables the City to adopt "any other elements or address any other subjects, which, in the judgment of the legislative body, relate to the physical development of the... city." Once adopted, an optional element has the same force and effect as the mandatory elements. Accordingly, zoning, subdivisions, public works, specific plans, and other actions that must be consistent with the general plan must be consistent with any optional elements. Over the past decade, optional elements addressing health, wellness and sustainability have become more common.

RELATIONSHIP TO OTHER ELEMENTS

Given that health and sustainability are influenced by a wide range of issues related to the physical environment, this chapter is closely linked to policies in each of the other chapters. Chapter 2, Land Use and Economic Development, and Chapter 3, Community Character and Placemaking outline desired land use patterns affect health by ensuring that neighboring uses are compatible and encourage walkable development patterns to support active lifestyles and greenhouse gas (GHG) emissions reduction. Chapter 4, Circulation similarly addresses expanded opportunities for active transportation. Chapter 5, Resource Conservation discusses public-health related issues such as air quality and water quality; air pollutant emissions are also closely tied to GHG emissions. Chapter 6, Public Facilities and Services includes policies related to public programs and services, including the provision of parks and schools. Chapter 7, Public Safety discusses hazards in the Planning Area, including those that impact public health.

8.2 PUBLIC HEALTH AND ENVIRONMENTAL JUSTICE

PUBLIC HEALTH

Public health encompasses a variety of health considerations that address the physical, mental, and social well-being of a community. A well-rounded public health system will consider a wide range of factors including environmental health, active lifestyles, social connections, and access to health and human services and healthy food.

Environmental Health

On a basic level, ensuring adequate environmental health means making sure that a community's fundamental environmental health needs, such as clean water and clean air, can be safely met, and that people are not at risk of exposure to hazardous materials in their surroundings. As discussed in Chapter 5, Resource Conservation, air quality in the Planning Area is compromised by high levels of pollutants, the majority of which are generated by vehicle traffic. Air contaminants can produce lung irritation and exacerbate existing respiratory conditions, and have been tied to increased rates of asthma hospitalization for youth and mortality among seniors. Air contaminants can also contribute to risk of lung cancer and cardiovascular disease. Vehicle traffic is also the main source of noise in the Planning Area, as discussed in Chapter 7, Public Safety. High levels of noise can also lead to physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep. Just as maintaining environmental quality is essential to ecological health in the area, it is essential to promoting health among community members.

Active Lifestyle

Active living refers to incorporating physical activity into one's daily life. Examples of active living include walking to transit to commute to work and walking or biking to school or social activities. Daily physical activity is a crucial aspect of reducing risk of a host of chronic diseases. Lack of physical activity is a risk factor for heart disease, cancer, stroke, diabetes, and Alzheimer's; and a primary risk factor for obesity. Conversely, active living is associated with improved mental health, longer lifespans, and better quality of life. In addition to the benefits of active living on an individual level, increased levels of physical activity also have the potential to reduce public health and medical costs associated with chronic diseases.

Certain environments, such as those where the only commute option is to drive or where public facilities and other destinations are located far from residences, make it difficult for people to lead active lives. As is discussed in Chapter 4, Circulation, vehicular mode share, or the percentage of residents who drive to get to work, is high as a result of the City's layout and distribution of land uses. The ability to reduce reliance on single-occupant vehicles and promote active living through the provision of pedestrian and bicycle facilities and improvements and the incorporation of new mixed-use centers that expand access to nearby shops, entertainment and services within walking or cycling distance from their homes create opportunities for more active lifestyles. Policies in Chapter 6, Public Facilities and Services also support the provision of parks and trails where Diamond Bar residents can go to exercise outdoors.

Social Connections

In addition to the physical environment, the strength of social networks and how the community engages with physical space has a strong impact on health and welfare at both the individual and community-wide level. Social interactions can contribute to both physical and mental health, and strong social networks can improve the resiliency of residents in the face of natural disasters and emergencies.

Diamond Bar has a network of community facilities designed to host community programs and events. The City offers a variety of recreational, artistic and educational programs, and special events that allow the community to come together. Members of the community have voiced a desire for more facilities and programming that will engage more youth and seniors, and reinforce the community's reputation as a "small town" where neighbors know and support each other. As the population becomes more ethnically diverse, spaces and opportunities for the community to come together to celebrate cultural differences and shared values will be increasingly valuable. In addition, the growing population of seniors will benefit from activities and programs that help them maintain social connections and networks despite changes in their ability or mobility. Chapter 6 includes policies that address

AGING IN PLACE

Aging in Place is a term used to refer to policies, services and structures related to the physical and social environment that allow older people to remain in their communities and "age actively," or continue to participate fully in society without compromising safety or security. Communities that support ageing in place typically feature accessible pedestrian infrastructure, supportive housing options that feature design that allows older people to remain in their homes longer, and access to key social services.

community facilities, and Chapter 3 includes policies that address increasing gathering spaces and encouraging public interaction through good design.

Healthcare and Human Services

Access to health care services is a crucial determinant of overall community health given that medical monitoring, advice, and care is often essential to preventing disease and improving health outcomes. While Diamond Bar does not have any public health centers or hospitals within its jurisdictional boundaries, residents may visit hospitals in neighboring jurisdictions. Hospitals such as Pomona Valley Hospital Medical Center and St. Jude Hospital/Medical Center in Fullerton include Diamond Bar in their primary service areas or catchment areas. The Diamond Bar community also has access to two nearby Los Angeles County-run public health centers located in Pomona and Monrovia. These health centers provide health services for free or on a sliding scale to low-income individuals and those without access to health insurance.

Diamond Bar's Diamond Ride program, a subsidized curb-to-curb cab service program, helps to support access to health and human services for persons with disabilities and those age 60 and older residing in Diamond Bar.

Healthy Food

An individual's access to healthy food options is another significant determinant of health. The County of Los Angeles Public Health 2015 survey data indicates that an overwhelming majority of parents and guardians in the Pomona Health District, which comprises Diamond Bar and neighboring jurisdictions, rated community access to fresh fruits and vegetables as excellent or good. The same

dataset simultaneously reveals, however, that more than 20 percent of children in grades 5, 7, and 9 and adults are obese. Many studies have found associations between quality of retail food environment and rates of obesity and diabetes. For example, when fast food restaurants are located adjacent to high schools, it is convenient for students to choose unhealthy food options.

Encouraging healthy eating can include actions such as increasing a community's knowledge of healthy food choices and behaviors, as well as promoting alternative healthy food options such as farmer's markets, community gardens and community-supported agriculture services (CSAs), which have the added benefit of providing opportunities for social interaction and community engagement and supporting local food producers.

ENVIRONMENTAL JUSTICE

Environmental justice refers to the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. While environmental justice has traditionally focused on pollution burdens and their relationship to health, which are discussed in the context of Diamond Bar below, the concept of environmental justice has broadened to include environmental and social vulnerabilities that determine health such as access to services, healthy food, and opportunities, thus overlapping with other community health topics addressed in this Chapter.

Disadvantaged Communities

Environmental justice is typically examined in the context of disadvantaged communities. The term "disadvantaged community" (DAC) is defined by the California Health and Safety Code, Section 39711, and refers to areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure to hazards, or environmental degradation, and socio-economic vulnerability, determined by concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.

Identifying DACs is the responsibility of local jurisdictions. SB 1000 specifies several ways for local jurisdictions to identify DACs, including the "off-the-shelf" method of using public maps published by the California Environmental Protection Agency (CalEPA), which is responsible for identifying disadvantaged communities pursuant to Health and Safety Code Section 39711. Each census tract in

the state is quantitatively evaluated for environmental pollution and vulnerability to the pollution. CalEPA identifies the census tracts that score in the top 25 percent in terms of pollution burden and socioeconomic vulnerability as "disadvantaged communities."

As of 2019 no disadvantaged communities have been identified by CalEPA in Diamond Bar or its Sphere of Influence, however this doesn't preclude the City of Diamond Bar from incorporating the principles of environmental justice into its planning and policies, principles that are consistent with values shared by Diamond Bar residents such as inclusivity, fairness and equity and an understanding that a community is only as resilient as its most vulnerable populations. Incorporating these principles into the City's planning and policies will also help to ensure that Diamond Bar continues to aspire toward being among the most inclusive communities to be found. The City can tackle procedural inequities, for instance, or inequities that occur when the planning process is not conducted in a uniform manner, by meeting community members where they are, at times that allow for broader participation, and by translating documents or providing interpretation services to those who are not comfortable providing input in English. Providing materials and outreach opportunities in other languages is and will continue to be particularly important in Diamond Bar, where levels of limited English speaking, also referred to as linguistic isolation, are high according to CalEPA and US Census Bureau data.

Pollution Burdens in Diamond Bar

The data provided by CalEPA in terms of pollution burden indicators is useful in terms of evaluating environmental health risks in Diamond Bar. Table 8-1 shows

the percentile rank of select pollution burden indicators used by CalEPA for census tracts in Diamond Bar. The percentile rank for a given indicator represents the percentage of census tracts in all of California with lower values of that indicator. For example, the majority of the census tracts in the Planning Area are in the 74th percentile or above for Ozone, which means that each census tract has worse Ozone pollution than 74 percent of census tracts in California. While the rankings do not necessarily reflect whether or not any given indicator is in non-compliance with existing standards for safety (for example, a high ranking for water contamination does not necessarily indicate that the water is unsafe to drink by State standards), they do illustrate clear geographical disparities in environmental quality.

Census tracts within the Planning Area are burdened with particularly high levels of fine particulate matter (PM 2.5), diesel particulate matter (diesel PM), and ozone. Fine particulate matter can originate from a variety of sources, including cars and trucks, industrial processes, wood burning, or other activities involving combustion, and wildfires. Because the particles are microscopic in size, they can be inhaled and affect both the lungs and heart, causing heart attacks, aggravated asthma, decreased lung function, and other complications. Ozone is a

common air pollutant in the region that is produced in the atmosphere by chemical reactions between oxygen-containing compounds and other air pollutants in the presence of sunlight. Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are some of the major sources of these substances. Breathing ozone can trigger a variety of health problems, particularly for children, the elderly, and people of all ages who have lung diseases such as asthma.

Drinking water and hazardous waste are two other pollution burden indicators where census tracts in Diamond Bar tend to score high relative to other census tracts in California. It is important to note that both drinking water and hazardous waste are regulated by standards at the State level. These indicators do not, therefore, necessarily point to major threats to human health.

Strategies available to the City to address these pollution burdens include collaborating with neighboring jurisdictions and regional bodies such as the South Coast Air Quality Management

District (SCAQMD) (see Chapter 5 for further discussion and policies related to air quality and water quality); protecting sensitive populations such as young people and aging adults from environmental risks through appropriate land use planning and mitigation requirements such as adherence to SCAQMD's air quality buffers as is referenced in Chapter 5; and ensuring that hazardous waste does not pose a threat to human health through appropriate land use and hazardous waste regulations, as outlined in Chapter 7: Public Safety.

Table 8-1: Percentile Ranks for Select Pollution Burden Indicators in Diamond Bar Disadvantaged Communities

Census Tract	Ozone[3]	PM2.5[4]	Diesel[5]	Drinking[6] Water	Traffic[7]	Hazardous Waste[8]	Total Pollution Burden[9]
403303	74	69	95	28	82	77	83
403304	69	69	79	28	84	19	57
403305	69	34	0	90	38	8	25
403312	78	82	97	54	96	47	93
403316	82	71	0	94	48	49	38
403319	78	96	0	95	49	26	26
403320	78	21	0	41	40	69	18
403321	82	23	0	95	45	50	15
403322	74	90	0	96	48	42	28
403323	74	98	0	94	50	78	31
403324	74	30	0	43	40	13	22
403325	69	34	0	91	38	41	18
408703	65	69	25	52	82	18	56

Notes:

1. The percentile represents a relative score for the indicators, in comparison to all census tracts in California.
2. Percentile values are rounded to the nearest one percent.
3. Based on amount of daily maximum 8-hour ozone concentration.
4. Based on annual mean of fine particulate matter concentrations.
5. Based on County-wide estimates for a July weekday.
6. Based on drinking water contaminant index for selected contaminants. The drinking water contaminant index is a combination of contaminant data that takes into account the relative concentrations of different contaminants and whether multiple contaminants are present. The drinking water contaminant index is not a measure of compliance with drinking water standards and does not indicate whether water is safe to drink.
7. Based on traffic volumes on road segments within 150 meters of the census tract boundary.
8. Based on the sum of weighted permitted hazardous waste facilities and hazardous waste generators within each census tract.
9. Based on average of percentiles from all pollution burden indicators.

Source: CalEnviroScreen 3.0, 2018

ACTIVE LIFESTYLE

See Chapter 4: Circulation for additional policies regarding the promotion of multi-modal mobility. See Chapter 6: Public Facilities and Services for additional policies regarding the provision of parks and public facilities.

GOALS

CHS-G-1	Support healthy and active lifestyles for all members of the community by integrating opportunities for active transportation and physical activity into daily life in Diamond Bar.
CHS-G-2	Achieve more walkable, livable neighborhoods by expanding the multi-modal transportation system and creating a safe, pedestrian-oriented environment.
CHS-G-3	Promote the use of public parks, recreational and other spaces for healthy exercise and physical activity.

POLICIES

CHS-P-1	Strive to ensure that all areas of the community have an equal distribution of public parks and public recreational facilities to maximize access.
CHS-P-2	As resources become available and appropriated through the municipal budget process, improve signs directing residents and visitors to public parks and recreational facilities from all parts of the community. Integrate parks and recreation signage with bikeway and pedestrian-oriented signage systems throughout Diamond Bar.
CHS-P-3	Promote physical activity and active transportation programs through events sponsored by the City, particularly the Parks & Recreation Department.

CHS-P-4 Remove barriers and improve multi-modal mobility throughout the City for all community members by supporting transit, pedestrian, and bicycle connections between residential neighborhoods and major destinations, including parks, civic facilities, school campuses, other educational institutions, employment centers, shopping destinations, parks, and recreation areas, where appropriate.

CHS-P-5 As opportunities and resource become available, implement street design features that facilitate walking and biking in both new and established areas. Require a minimum standard of these features for all new developments.

CHS-P-6 Support efforts to improve the conditions for youth walking and bicycling in the areas surrounding schools.

SOCIAL CONNECTION

GOALS

CHS-G-4 Embrace physical, cultural, language, and social diversity, sensitively integrating and welcoming newcomers into the established community.

CHS-G-5 Enhance cultural and generational diversity and social connections through opportunities for volunteerism and civic engagement, public gathering places, public art, family-friendly activities, and events that connect residents to one another, helping them to stay socially active in the community.

CHS-G-6 Provide safe and welcoming opportunities for meeting and gathering that encourage face-to-face interactions between people.

POLICIES

CHS-P-7 Continue to support and promote citywide events that integrate families, schools, and the greater community.

CHS-P-8 Foster greater connectivity between neighborhoods and uses by reducing physical barriers and implementing strategies that improve comfort and safety, such as improved visibility, lighting, and walkability.

CHS-P-9 Encourage and provide volunteer opportunities for residents to engage and support a wide variety of events and activities.

CHS-P-10 Promote social engagement and healthy lifestyles for older adults by continuing to organize and offer appropriate cultural, recreational, and assistance programs, activities, and services.

CHS-P-11 Encourage and facilitate incorporation of universal lifecycle design principles (design that promotes the ability to remain in one's house as one ages) in new residential development, allowing community members to stay in their homes and neighborhoods longer.

CHS-P-12 Encourage public art installations that are diverse in content, media, and siting that help to create and reinforce the uniqueness of Diamond Bar and reflect an array of cultural influences.

CHS-P-13 Support the provisions of spaces, programs and facilities across the community to provide opportunities for artistic and cultural engagement and expression for all members of the Diamond Bar community.

CHS-P-14 Encourage the development of "destinations"—such as the clusters of commercial uses that draw residents from the entire community into the Neighborhood Mixed Use, the Transit-Oriented Mixed Use, and the Town Center focus areas.

CHS-P-15 Encourage the establishment of gathering areas in new neighborhoods.

CHS-P-16 Create safe public spaces through implementation of Crime Prevention Through Environmental Design (CPTED) strategies.

HEALTHCARE AND HUMAN SERVICES

See Chapter 2: Land Use and Economic Development for additional policies regarding the development of employment opportunities.

GOALS

CHS-G-7 Promote health equity, including equal access to health facilities, clinics, goods, services, and economic and educational opportunities, helping to ensure wellbeing for residents of all ages, abilities, and incomes.

POLICIES

CHS-P-17 Support the managed growth of complementary health services and medical facilities in Diamond Bar, including clinics, hospitals, medical offices, and medical laboratories. Work with hospitals, medical practices, and other health care providers to ensure widespread access to these services.

CHS-P-18 Publicize existing health programs and assist residents in connecting with County and community-based health services and medical facilities.

CHS-P-19 Encourage the use of schools as community and neighborhood centers to provide a range of services and programs, such as evening courses related to healthy living, job-training and retraining programs, and other services for the community at large.

HEALTHY FOOD

GOALS

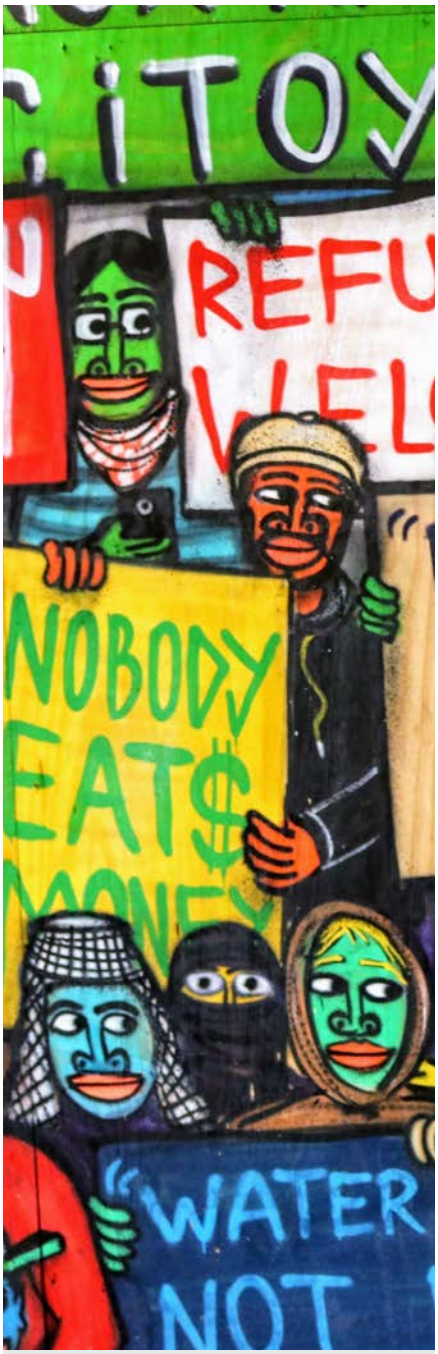
CHS-G-8 Promote a healthy, balanced, functional, and equitable food system for the entire Diamond Bar community by reducing barriers and increasing access to locally-grown fruits and vegetables and increasing community-wide knowledge of healthy food choices and behaviors.

POLICIES

CHS-P-20 Continue to support and collaborate with local non-profit organization (such as the Greater La Puente Valley Meals on Wheels) to promote and provide food delivery to Diamond Bar residents who have difficulty preparing food or obtaining meals for themselves due to physical, mental, financial, or other conditions.

CHS-P-21 Promote healthy food and beverages at City-sponsored events, programs, and recreation activities. Ensure that safe, clean drinking water is available for the public at all City-owned buildings where public programs occur.

CHS-P-22 Consider opportunities to partner with regional Community Supported Agriculture (CSA) as an alternative source of fresh and healthy fruits and vegetables for Diamond Bar residents, particularly those with limited mobility or income, or those farthest from existing grocery stores.



CHS-P-23 Support home gardening efforts by considering a Home Gardening and Urban Agriculture Ordinance or otherwise ensuring that zoning does not prevent or restrict the use of residential properties as vegetable gardens.

CHS-P-24 Explore opportunities as they arise to incorporate community gardens into City parks and open space areas, and encourage the Diamond Bar Community Garden and other organizations to facilitate the development, administration, and operation of additional community gardens in the City.

PUBLIC HEALTH AND ENVIRONMENTAL JUSTICE

GOALS

CHS-G-9 Promote health equity and environmental justice in Diamond Bar to ensure the well-being of residents with the greatest vulnerability to health risks.

CHS-P-10 As opportunities avail themselves, involve environmental groups, the business community, and the general public in the formulation and implementation of programs that enhance public health in the City and the region.

POLICIES

CHS-P-25 Cooperate with the Los Angeles County Department of Public Health and other agencies to monitor and maintain data related to Diamond Bar health outcomes and risk factors, and use this data to consider development or expansion of County and City programs to best serve and protect the Diamond Bar community.

CHS-P-26 At such time that City staffing resources are available, monitor and maintain data from CalEPA related to pollution burdens and socioeconomic vulnerabilities in Diamond Bar, and use the data to consider development or expansion of programs and investments to reduce the risks of disadvantaged communities.

CHS-P-27 Recognizing the adverse health impacts associated with compromised air quality, ensure the protection of sensitive receptors from exposure to hazardous concentrations of air pollutants when reviewing development proposals.

CHS-P-28 To the extent feasible, manage, enhance, and improve the City's tree canopy as a valuable ecological and public health resource, particularly adjacent to and within sensitive use areas located in the Air Quality Management District (AQMD) 500-foot air quality buffer.

CHS-P-29 Incorporate noise mitigation measures, which could include buffers, noise barriers, or natural open space, and vegetation, between new sensitive uses such as residential units and schools, and major noise polluters such as SR-57 and SR-60, the Metrolink Riverside rail line, and heavy industry.

CHS-P-30 Support a better informed and civically engaged community by making information available both in print and electronic format, and, to the extent possible, provide this information in the languages predominantly spoken in the community.

CHS-P-31 Encourage all segments of the Diamond Bar community, including residents, businesses, and organizations, to be involved in the development, adoption, and implementation of community health programs and activities.

8.3 CLIMATE CHANGE AND GREENHOUSE GASES

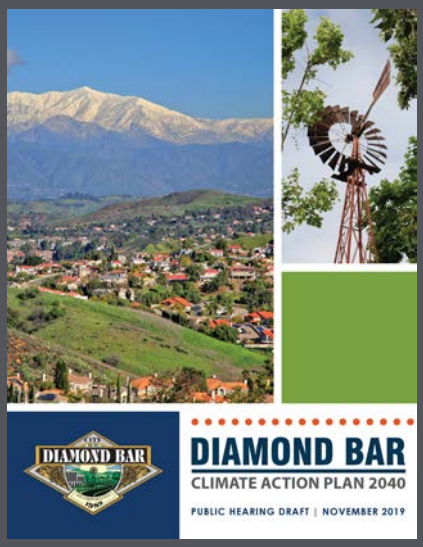
Climate change impacts pose an immediate and growing threat to California's economy, environment and public health. The effects of climate change in the San Gabriel Valley include increased temperatures, reduced precipitation, flooding, and reduced water supply. It is thus important that the Diamond Bar community build resilience to be able to adapt to these effects, and also promote the reduction of greenhouse gas (GHG) emissions to mitigate, or reduce their impacts.

CLIMATE CHANGE MITIGATION

In California, about 40 percent of greenhouse gas emissions come from the transportation sector. For example, the proximity between housing and job centers and the design of transportation networks determines the distance needed to travel between destinations and the transportation mode choices available. These factors directly influence the amount of greenhouse gas emissions from the transportation sector. Reducing vehicle miles traveled will help Diamond Bar reduce its greenhouse gas emissions and mitigate potential impacts of climate change, with the added benefit of reducing pollutants that affect public health issues related to air quality in the city and broader region.

Climate change mitigation refers to the actions taken to limit the magnitude or rate of climate change and its corresponding effects, and focuses primarily on the reduction of GHG emissions. Given the relationship between transportation and greenhouse gas emissions in California and the dominance of single occupant vehicles in Diamond Bar, the most promising mitigation measures available to the City of Diamond Bar are those related to the reduction of vehicle miles traveled (VMT) through land use and transportation planning that promotes compact growth and alternative modes of transportation. This General Plan provides a land use plan and corresponding land use and circulation policies that act as a framework for VMT reduction through compact, mixed-use development that provides greater access to shopping, employment and recreational destinations that do not require travelling long distances by car (see Chapter 2: Land Use and Economic Development and Chapter 4: Circulation). Other climate change mitigation strategies include energy efficiency and conservation, waste reduction and diversion, and green building and landscapes. Additional measures to promote climate change mitigation are outlined in the City's Climate Action Plan.

CLIMATE ACTION PLAN



Diamond Bar is committed to helping reduce the effects of rapid climate change. The City's Climate Action Plan (CAP) is designed to provide discrete actions to operationalize the General Plan policies that help with GHG reduction. The CAP outlines Diamond Bar's overall strategy to reduce GHG emissions and identifies specific implementation measures the City will undertake and quantifies their impacts, in order to comply with State directives for reducing GHGs. The California Assembly Bill (AB) 32 2017 Scoping Plan seeks to bring California to a low carbon future, reducing emissions to no more than six metric tons carbon dioxide equivalent (MTCO2e) per capita by 2030 and no more than two MTCO2e per capita by 2050. The AB 32 Scoping Plan also directs local governments to assist the state in meeting California's emissions goals.

The GHG emission targets proposed for the Diamond Bar CAP are based on the goals established by California Executive Order (EO) S-3-05 and SB 32, following the CAP guidelines established in the 2017 Scoping Plan. The horizon year for analysis in the proposed Diamond Bar CAP is 2040, corresponding with the General Plan update horizon. Thus, the CAP will include targets of six MTCO2e per capita per year by 2030 and four MTCO2e per capita per year by 2040 (derived from the Scoping Plan target of two MTCO2e per capita per year in 2050). It provides a community-based policy framework to address community-wide GHG emissions sources. Specifically, the CAP is designed to:

- *Translate high-level objectives and quantified goals into a realistic, understandable set of implementation actions;*
- *Demonstrate that significant reductions in GHG emissions are attainable through local actions;*
- *Inspire community members to work collectively to achieve these reductions;*
- *Dovetail with General Plan policies that are required to address climate change impacts and adaptation, including those for land use, transportation, building design, and infrastructure; and*
- *Provide a predictable approach to mitigation strategies for the compliance of future development projects with CEQA.*

The CAP will be the primary tool for implementing the General Plan's climate change mitigation policies.

Energy Efficiency and Conservation

Many energy efficiency and conservation measures rely on individual decisions and incentives to make these decisions. The City is positioned to act as a model of energy efficiency and conservation through the establishment of city practices that reduce energy consumption, and to disseminate information on incentives such as energy upgrading financing options that will encourage the Diamond Bar community to conserve energy.

Waste Reduction and Recycling

Diverting waste from landfills by promoting reduction, reuse, recycling, and composting of materials can substantially reduce greenhouse gas emissions. Recycling and waste prevention programs reduce energy and transportation needed to manufacture and ship resource-intensive products and packing. Composting food and yard waste reduces the amount of methane produced in landfills.

Green Building and Landscapes

The California Green Building Standards Code (CALGreen) was adopted in 2010. It was the first code of its kind to mandate green building design and construction in categories related to planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and air quality standards. The City's Building Code was amended for consistency with CALGreen Building Code. CALGreen measures thus apply to all new buildings (residential and non-residential). In addition, Diamond Bar's biological resources and ecosystems contribute to climate change mitigation through carbon storage and climate regulation. These ecosystem services will be particularly important as climate change contributes to higher temperatures and heat islands in urban areas.

GREENHOUSE GAS EMISSIONS

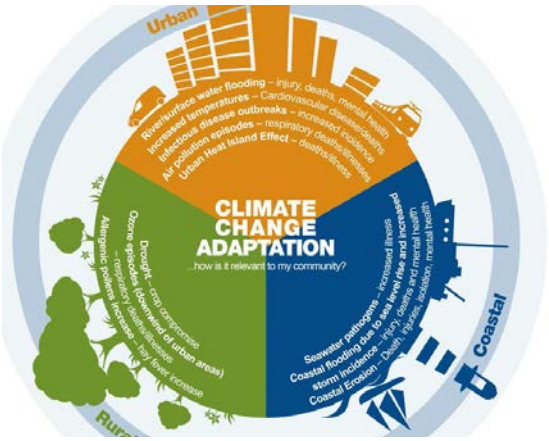
GHGs are those compounds in the Earth's atmosphere that play a critical role in determining temperature near the Earth's surface. More specifically, these gases allow high-frequency shortwave solar radiation to enter the Earth's atmosphere, but retain some of the low frequency infrared energy which is radiated back from the Earth towards space, resulting in a warming of the atmosphere. GHGs result from human activities associated with industrial manufacturing, vehicle emissions, waste, and the use of electricity generated from fossil fuels.

CLIMATE CHANGE RESILIENCE

Although reducing GHGs is necessary to avoid the most catastrophic consequences of climate change, a certain amount of climate change within the planning horizon of this General Plan is unavoidable due to existing emissions and the concentration of GHGs in the atmosphere. The Fourth California Climate Change Assessment, completed in 2018, projected that for the Los Angeles region, including Los Angeles County, changes in climate are likely to include:

- Continued warming, with average maximum temperatures to increase 4 to 5 degrees Fahrenheit (F) by 2050;
- Increases in extreme temperatures, with the hottest day of the year being up to 10 degrees F warmer for many locations by the end of the century and the number of extremely hot days also increasing;
- Increases in both dry and wet extremes, with increases in precipitation on the wettest day of the year and increased frequency and severity of atmospheric river events; and
- Increased frequency of wildfire.

In the Planning Area, some residents will be more vulnerable to the effects of climate change. For example, young residents, seniors, persons with disabilities, lower-income households, those living in social isolation, and the homeless are at a much higher risk for health



problems related to heat and wildfire smoke. Geographically, some locations in the Planning Area may be more susceptible to certain effects of climate change. Structures and residents located on hillsides and near open spaces will have greater wildfire risk. Intensively developed areas are more likely to experience "heat island" effects, in which urban development and human activities contribute to higher temperatures than those in surrounding unurbanized areas. Heat islands are typically the result of dark surfaces, building materials that absorb and radiate heat, loss of vegetation, and energy usage. In order to reduce the community's vulnerability and build resiliency, the City can prepare for and adapt to the impacts of climate change. Strategies can include the following:

- Plan for extreme weather events by incorporating the potential effects and threats of climate change into emergency management planning;
- Use urban design as a tool to reduce heat island effects by planting trees and limiting the use of pavement, other urban

materials, and human activities that concentrate the sun's heat;

- Create a system resilient to low water supplies by managing urban and agricultural water use efficiently;
- Protect against failures of the transportation system by creating resilient transportation systems with redundant, multi-modal routes; and
- Build preparedness within the community by ensuring that community members are aware of changing risks and have access to necessary support systems.

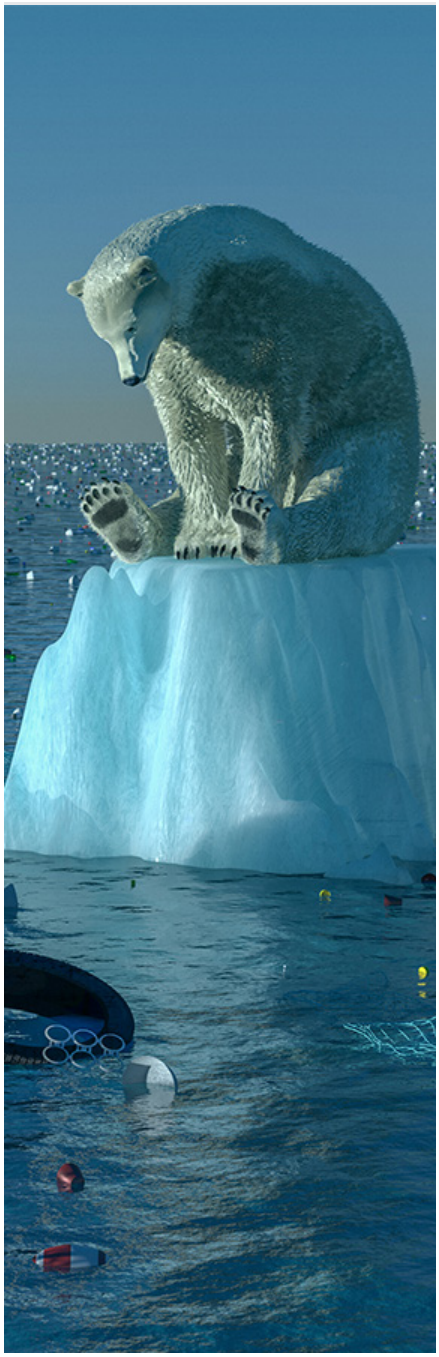
Many policies throughout this chapter and other chapters of the General Plan are intended to increase the community's resiliency by promoting stability of different ecological, social, built, and economic systems of the City.

THE URBAN HEAT ISLAND EFFECT

Urban Heat Islands refer to developed areas that undergo higher warming of the surface and the atmosphere than surrounding rural or undeveloped areas. Research suggests that unmitigated Climate change will lead to higher temperatures and longer, more severe, and more frequent heat waves. Urban areas such as Diamond Bar already suffering from the heat island effect will bear the brunt of these harsher heat events, increasing the risk of illnesses such as heat exhaustion and heat stroke, particularly among older adults, young children, and those who work outdoors. Mitigation measures can include increasing the tree canopy, installing green roofs and cool pavements, and reducing the number of vehicles in an area.

CLIMATE CHANGE AND GREENHOUSE GASES

See Chapter 4: Circulation for additional policies regarding the reduction of VMT and promotion of multi-modal mobility. See Chapter 5: Resource Conservation for additional policies regarding hillside conservation and open space preservation



GOALS

CHS-G-11 Consider initiatives to enhance sustainability by reducing the community's greenhouse gas (GHG) emissions, protecting natural open spaces which provide CO2 sequestration, and fostering green development patterns, buildings, sites, and landscapes.

CHS-G-12 Conserve natural open spaces by prioritizing and supporting infill development to build healthy, equitable, and sustainable communities.

CHS-G-13 Promote energy efficiency and conservation in the community.

CHS-G-14 Encourage waste reduction and diversion practices to meet State targets and reduce GHG emissions.

CHS-G-15 Increase the community's resiliency and capacity to resist and recover from social, economic, and environmental disruption from climate change impacts.

POLICIES

Greenhouse Gas Emissions

CHS-P-32 Continue to monitor the City's compliance with State-mandate GHG emissions, as provided for in the CAP. Make timely adjustments to City policies as required to continue meeting State GHG targets, and as changes in technology, federal and State programs, or other circumstances warrant.

CHS-P-33 Encourage land uses to reduce vehicle miles traveled (VMT), prioritizing infill development and incorporating vertical and horizontal mixed-use development, public transit, and active transportation facilities where appropriate, recognizing that the transportation sector is the largest source of GHG emissions in Diamond Bar and in California more broadly.

CHS-P-34 Demonstrate City leadership in GHG emission reduction activities by considering incentives for proposals that reduce or minimize GHG production, or provide incentives for selecting climate friendly, or lower and/or non-emission producing alternatives.

Energy Efficiency and Conservation

CHS-P-35 Use the City's CAP as the platform when considering measures to improve energy conservation and increase renewable energy use in existing and new development.

CHS-P-36 Support and cooperate with local, regional, State, and federal agencies on the monitoring and evaluation of energy resources as well as the identification of energy-efficient and alternative energy technologies and practices.

CHS-P-37 As opportunities arise, work with appropriate federal, State, and private utility agencies to identify and facilitate utility rate revisions that would provide incentives for the conservation of energy.

CHS-P-38 Consider the adoption of rooftop and parking lot solar power and/or other alternative energy usage on developed sites in Diamond Bar through actions such as:

a. Establishing incremental growth goals for solar power/alternative energy systems in Diamond Bar;

b. Developing guidelines, recommendations, and examples for cost-effective solar and/or other alternative energy-based installation; and

c. Installing solar/alternative energy technology on existing City facilities.

CHS-P-39 Support Southern California Edison (SCE) and Southern California Gas Company's (SoCalGas) efforts to increase public awareness of energy conservation technology and best practices.

CHS-P-40 Require the inclusion, where feasible, of provisions for energy-efficient modes of transportation and fixed facilities that establish public transit, bicycle, and pedestrian modes as safe, efficient, and desirable alternatives.

CHS-P-41 Support the use of clean fuel and "climate friendly" vehicles in order to reduce energy use, energy cost, and greenhouse gas emissions by residents, businesses, and City government activities.

CHS-P-42 Seek funding and other assistance from the South Coast Air Quality Management District for installation of electric vehicle charging stations at appropriate locations throughout the City.

CHS-P-43 Explore participating in new high efficiency technology programs such as LED lighting for City facilities, safety lighting in parks and other public spaces, and LED street lighting conversion for all City-owned street lights.

CHS-P-44 Promote energy conservation and retrofitting of existing buildings through the implementation of the Green Building Codes.

CHS-P-45 Support and cooperate with the Walnut Valley Water District, the Los Angeles County Public Works Department, and the Los Angeles County Sanitation District in community education efforts to reduce the consumption of carbon-based fuels for conveyance and treatment of water and wastewater.

Waste Reduction and Recycling

CHS-P-46 In order to achieve compliance with the source reduction goals set forth under Assembly Bill (AB) 939 amendments thereto, incorporate solid waste diversion goal performance standards into the contracts with the City's franchise waste haulers, and enforce the City's Construction and Demolition Waste Ordinance.

CHS-P-47 Reduce the disposal of household hazardous wastes in landfills through continued cooperation with waste pick-up service providers, the County Sanitation Districts, and the Los Angeles County Department of Public Works in the provision of curbside pick-up and annual household waste round up events.

CHS-P-48 Continue to promote the safe disposal of household hazardous waste through public education and incentives.

CHS-P-49 Continue to educate residential, commercial, and industrial generators about source reduction and recycling programs and encourage their participation in these programs through promotional campaigns and incentives.

CHS-P-50 Encourage generators of edible food to have contracts or agreements with food rescue organizations to minimize edible food from being disposed of or destroyed.

CHS-P-51 Encourage residents and businesses to compost leaves, grass clippings, food waste, and other organic materials by promoting existing food waste pickup services, residential waste hauler rate composting discounts, and residential backyard composting.

CHS-P-52 Collaborate with the City's contract waste haulers to educate and encourage residents and businesses about waste reduction strategies.

CHS-P-53 Support and cooperate with County and State regulatory agency efforts to require commercial and industrial generators to develop and implement a source reduction and recycling plan tailored to their individual waste streams.

Climate Change Resiliency

CHS-P-54 Incorporate updated information about future climate change hazards, particularly those related to extreme weather such as drought, storms, heat waves, and wildfires, into the City's hazard mitigation and emergency planning processes.

CHS-P-55 Encourage the protection and enhancement of areas identified as healthy functioning ecosystems that provide the ecological, cultural, public health and safety, and economic value of ecosystem services, or benefits.

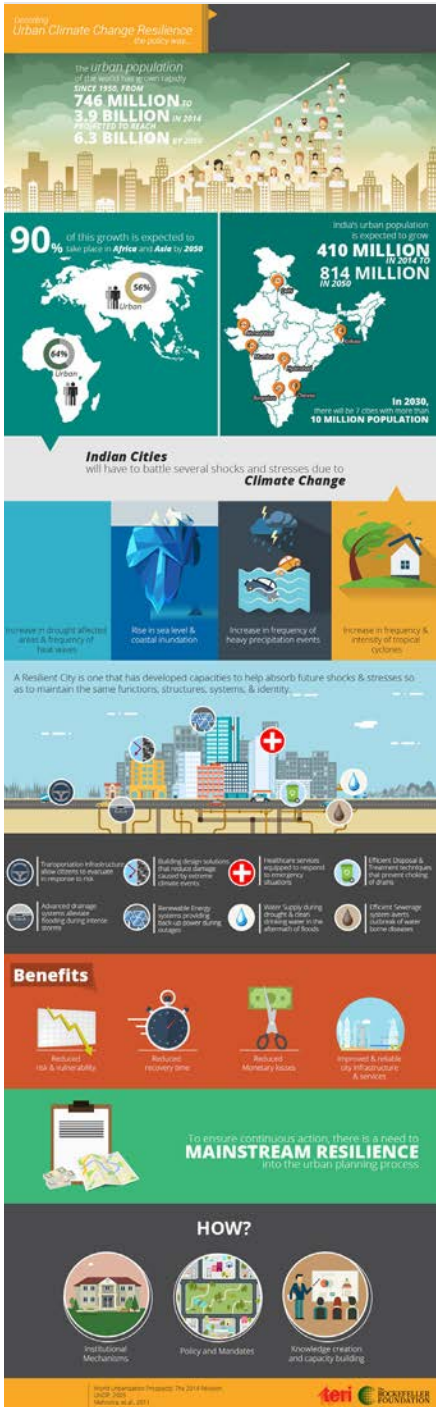
CHS-P-56 Prepare a Landscape Manual or otherwise incorporate landscape standards in the Municipal Code to mitigate urban heat island effects and contribute to long-term carbon storage through maximum tree canopy coverage and minimum asphalt and paving coverage particularly for denser areas like the planned Town Center and mixed-use neighborhoods, existing shopping centers, and industrial and other areas with expansive surface parking. Consider the reflectance of stone and rock ground cover in heat generation.

CHS-P-57 Encourage water conservation, drought-tolerant landscaping and the use of greywater and reclaimed and recycled water, where appropriate, with a view to reducing water use.

CHS-P-58 Encourage the installation of green roofs and cool (reflective) roofs to reduce temperatures of roof surfaces and the surrounding air.

CHS-P-59 As resources become available, increase the efficiency of water usage in public places, such as irrigation in public parks, and utilize drought-tolerant landscaping in City parks and streetscapes.

CHS-P-60 Promote a resilient transportation system that offers connectivity for multiple transportation modes in the face of extreme events related to climate change, such as storms and wildfires.



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