

Health and Environmental Quality

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For a community to thrive, its residents need to be healthy, safe, and engaged with one another. The focus of this element is on actions the City can take to promote public health, protect environmental resources and enrich the quality of life for all residents of Chino.

Community health has been a long-standing priority for the City of Chino. In 2004, the City launched the Healthy Chino initiative, an award-winning program that offers events, workshops, and system changes to promote a healthier lifestyle, and the City's 2010 General Plan was one of the first in the state to address public health. State law also requires that strategies to promote environmental justice be incorporated into the General Plan, including strategies to address pollution exposure and negative health impacts from neighborhood conditions. At root public health and environmental justice are closely related, as both seek to address social, environmental, and health inequalities that disproportionately affect vulnerable populations.

The Health and Environmental Quality Element outlines a framework to move Chino towards health equity by promoting active, healthy lifestyles; creating safe routes to schools, parks and neighborhood destinations; building resilience to summertime heat; and promoting wise stewardship of environmental resources. This Element addresses statutory requirements for environmental justice, conservation, and open space as well as local priorities for public health. Factors affecting community well-being are also addressed throughout this General Plan.

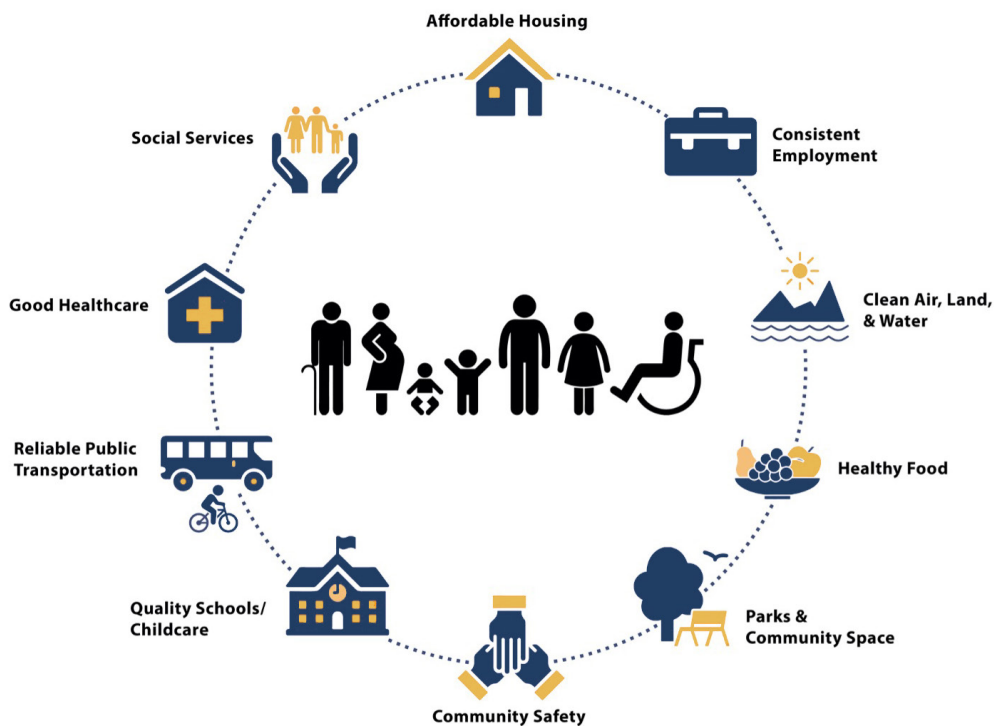


WHAT IS ENVIRONMENTAL JUSTICE?

Environmental justice is rooted in a conviction that all people are entitled to live, work, and play in a clean and healthy environment regardless of race, culture, or income. Throughout California and beyond, low-income communities and communities of color have historically experienced discrimination, negligence, and political and economic disempowerment, with the result that today, these groups struggle with both a disproportionate burden of pollution and health impacts as well as disproportionate social and economic disadvantages such as poverty or housing instability. This undesirable reality is considered environmental injustice, and it contributes to disparities in health (e.g., asthma, lead poisoning, and obesity) among populations of different race, ethnicity, and socioeconomic status. Conversely, environmental justice is a concept that aims to reduce and equalize the effects of environmental hazards among all people. Environmental justice provides a specific lens through which to advance equity and protect human health.

DEFINING DISADVANTAGED COMMUNITIES

The California Government Code defines disadvantaged communities (DACs) as "... an area identified by the California Environmental Protection Agency... or an area that is a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation." Identified DACs are eligible for State funding that can improve community conditions and quality of life, including funding from the Cap-and-Trade program for projects that seek to reduce truck pollution near disadvantaged communities, plant trees in cities, provide affordable housing near transit lines, improve energy efficiency in homes, and fund outreach/engagement tools to empower communities.



DISADVANTAGED COMMUNITIES IN CHINO

Under California law (SB 1000, The Planning for Healthy Communities Act), the General Plan must address environmental justice with policies for issues that affect “disadvantaged communities” (DACs). DACs are areas within the city that experience disproportionate levels of pollution, socioeconomic stress, historic disinvestment, and adverse health outcomes. The California Environmental Protection Agency (CalEPA) is responsible for identifying DACs. CalEPA has developed CalEnviroScreen (CES), a methodology that helps identify areas that are most affected by pollution sources and where people are often especially vulnerable to pollution’s effects. CES uses data from publicly available sources to measure 21 different indicators related to pollution exposure, environmental quality, and socioeconomic and public health conditions. Indicators are measured

at the census tract level – a geographic boundary that is often the smallest or most complete geographic scale for which data is available. Indicators are categorized into two main groups – pollution burden and population characteristics. Each of the state’s 8,000 census tracts gets an overall CES based on their pollution burden and population characteristics scores. CES scores are then mapped to show how different communities compare. An area with a high score is one that experiences a much higher burden of pollution and socio-economic disadvantage than areas with low scores. Under SB 535, a DAC is defined as an area scoring in the top 25 percent (75th – 100th percentile) of all California census tracts for pollution burden and socioeconomic factors as measured in CES.

For more information about how the CES 4.0 percentile rankings were developed, please visit <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

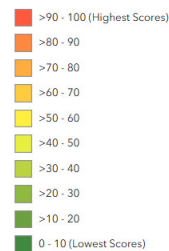
The CalEnviroScreen 4.0 tool shows cumulative impacts in California communities by census tract.

How to use this map

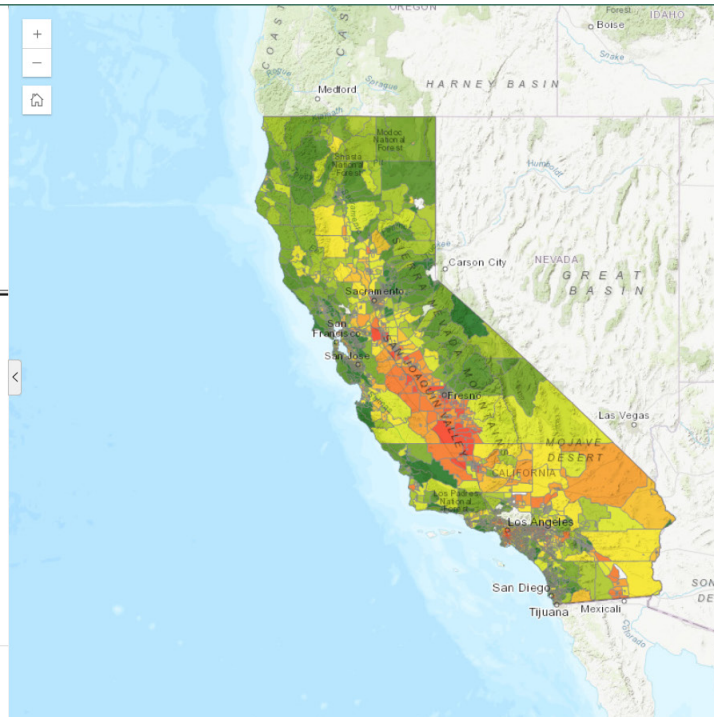
- Use your mouse or touchpad to pan around.
- Zoom in/out with a mouse wheel or the +/- icons.
- Search by location or census tract number with the search icon.
- Click on a census tract to view additional information in the pop-up window.
- Dock the pop-up window to the side of the screen by clicking the dock icon.
- Export a map view that includes the legend and popup using the screenshot widget.
- Learn more about CalEnviroScreen 4.0 and how this map was created here.
- Click the links in the header to view additional maps related to CalEnviroScreen 4.0.

Overall Percentile

CalEnviroScreen 4.0 Results



CalEnviroScreen 4.0 High Pollution, Low Population



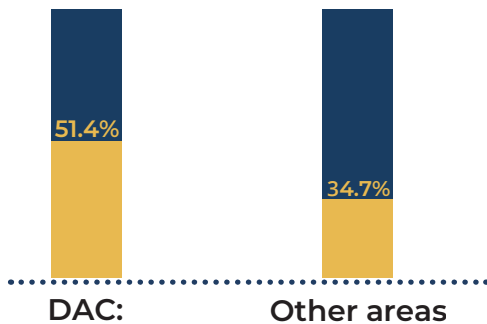
CalEnviroScreen map

Based on CES data, a total of six of the 19 census tracts in the planning area are designated as DACs. As shown in **Map HEQ-1**, DACs are generally concentrated in the northern central portion of the city bounded by Chino Avenue to the south, Philadelphia Street to the north, Mountain Avenue to the east, and Monte Vista Avenue to the west. There is also a DAC in the northwestern unincorporated portion of the planning area south of Phillips Boulevard. Those who live in DACs tend to be slightly older (median age 38.2) compared to the city as a whole (median age 36.9), with lower levels of educational attainment (12.6 percent of the population aged 25 and older have a bachelor's degree or higher in DACs vs. 20.0 percent citywide). DAC tracts have a lower median household income (\$84,591) compared to the city as a whole (\$92,123) and a higher rate of poverty. DAC

residents on average experience higher rates of asthma (51.4 percent) and cardiovascular disease (79.1 percent) than in other areas of Chino (34.7 and 60.6 percent, respectively). The non-White Hispanic population is substantially higher in DACs (50 percent) than in other areas of Chino (30 percent).

While CES indicators are a useful first step in identifying DACs, the data does not address other factors that characterize environmental justice and health equity, including factors such as access to healthy food, opportunity for physical exercise, and racial inequity. These issues are not related to pollution burden and exposure, but they are directly linked to health outcomes, life expectancy, well-being, and access to opportunity. Therefore, the General Plan considers a wider range of factors influencing environmental justice and health equity, including additional environmental and social determinants of health.

Asthma



Educational Attainment

DAC: 12.6% bachelor's degree or higher



Heart Disease



DAC: 79.1%

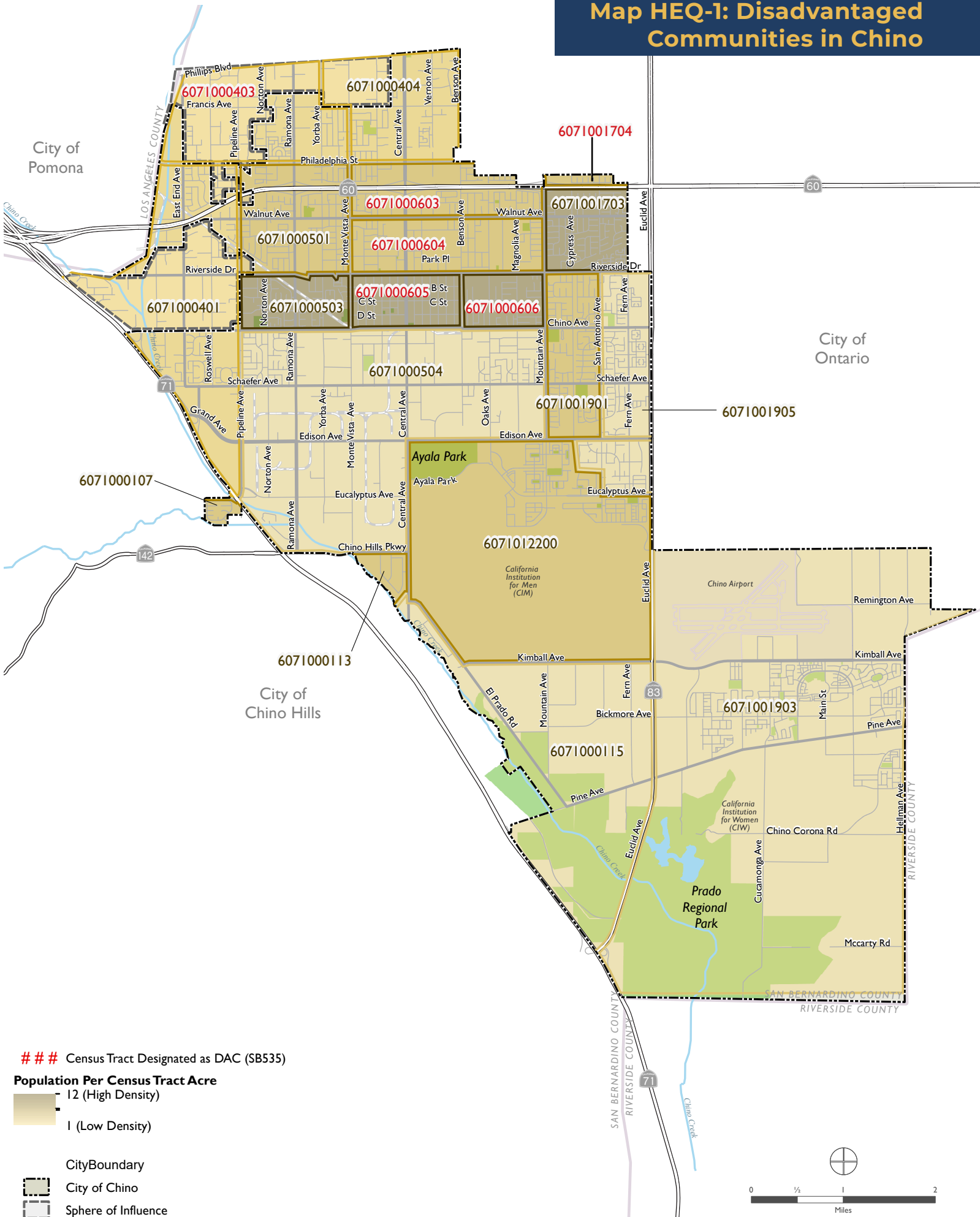


Other areas: 60.6%

Other areas: 20.0% bachelor's degree or higher



Map HEQ-1: Disadvantaged Communities in Chino



Census Tract Designated as DAC (SB535)

Population Per Census Tract Acre

- 12 (High Density)
- 1 (Low Density)

City Boundary

City of Chino

Sphere of Influence



Data Source: FEMA Flood Hazard Layer, 2018; Orange County Public Works, 2025; City of Chino GIS, 2024; San Bernardino County GIS, 2024; Dyett & Bhatia, 2024.

CHINO HEALTH PROFILE

Table HEQ-1 presents a profile of community health in Chino, comparing health outcomes in three broad categories for residents of DACs, residents of other areas of Chino, and residents of San Bernardino County as a whole. Red indicates factors where outcomes in Chino are less positive in comparison to the county average. As shown, in comparison to San Bernardino County residents as a whole, Chino residents - including DAC residents - tend to have healthier outcomes. Notably, they have a higher life expectancy and lower rates of asthma, cardiovascular disease, obesity, diabetes, and physical inactivity than the average San Bernardino County resident. However, the data indicate that Chino residents face a greater exposure to pollution than residents of the county as a whole, and that exposure to fine particulate matter from cars and trucks is particularly high in

Chino, although non-DAC residents are more exposed to diesel particulate matter from trucks and pesticides than DAC residents in Chino.

Overall, DAC residents in Chino have markedly worse health outcomes than non-DAC residents. DAC residents have higher rates of asthma, cardiovascular disease, diabetes, obesity and physical inactivity. Strikingly, DAC residents are three times more likely not to have health insurance than residents of other areas of the city and their average life expectancy is nearly a full year less. These factors also tend to make DAC residents more vulnerable to the adverse effects of summertime heat and air pollution because these conditions reduce the body’s ability to cope with environmental stressors and increase the risk of serious health complications. General Plan policy recognizes and addresses these fundamental health inequities.

Table HEQ-1: Select Pollution, Health, and Socio-Economic Indicators

Indicator	DACs	Non-DACs	City of Chino	San Bernardino County
Pollution Exposure				
Particulate Matter 2.5	94.4	93.3	93.8	62.6
Diesel Particulate Matter	50.9	65.0	62.6	46.2
Impaired Water Bodies	2.1	28.9	16.4	9.5
Pesticides	9.7	42.0	31.5	11.7
Health Factors				
Asthma	51.4	34.7	40.2	60.9
Cardiovascular Disease	79.1	60.6	67.7	77.3
Uninsurance Rate*	13.5%	4.0%	9.2%	9.1%
Life Expectancy*	79.1	79.9	79.6	78.9
Obesity*	39.3%	35.2%	37.0%	34.1%
Diabetes*	10.7%	8.8%	9.3%	13.9%
Physical Inactivity*	26.1%	20.4%	22.4%	26.2%
Socio-Economic Characteristics				
Educational Attainment	74.5	51.3	61.3	60.0
Poverty	60.6	35.5	43.8	61.8
Unemployment	55.5	43.2	44.1	63.8
Housing Burden	45.3	31.9	44.8	48.6

*Indicates data from City Health Dashboard, all other scores are from CalEnviroScreen.

Sources: CalEnviroScreen 4.0, 2022; NYU Langone Health (2021). City Health Dashboard. Chino, CA; Dyett & Bhatia, 2023

Active, Healthy Lifestyles

An active, healthy lifestyle is essential for maintaining overall health and well-being, with benefits that reach far beyond weight control or physical appearance. Engaging in regular physical activity reduces stress, anxiety, and depression, while also boosting mood and promoting better sleep. It strengthens the heart and improves circulation, helping to lower blood pressure and cholesterol, and significantly reduces the risk of heart disease and stroke. Physical activity also plays a key role in preventing chronic illnesses such as type 2 diabetes, certain cancers, osteoporosis, and obesity. As we age it strengthens muscles, bones, and joints, helping to prevent injury and maintain mobility. For children and adolescents, physical activity is vital for healthy growth, emotional development, and

the formation of lifelong healthy habits, and for people of all ages, even modest amounts of daily physical activity are linked to a longer life expectancy.

Beyond diet and exercise, engagement with neighbors and the community at large is also an important part of an active, healthy lifestyle. Studies have long demonstrated a strong link between social engagement and better health outcomes, including improved mental health, lower the risk of disease, and increased lifespan. General Plan policy seeks to promote active, health lifestyles for residents of all ages with opportunities to participate in physical, social, and civic activities, with a focus on residents who live in DACs.



Seniors Dance Class

HEALTHY CHINO INITIATIVE

Launched in 2004, the City’s Healthy Chino program is a comprehensive wellness initiative to enhance the health and quality of life for all community members. It adopts a multifaceted approach, focusing on nutrition, active living, physical and mental health, environmental health, and smart growth practices. Since inception, Healthy Chino has engaged with over 88,000 community members through various programs, workshops, and events and has been recognized with numerous awards.



Representative Programs and Events

- **Mobile Stops:** Monthly pop-up events across the city that provide families with information on diverse health topics. Each event focuses on a specific theme, such as heart health, nutrition, or stress management.
- **Family Fit Challenge:** An interactive program encouraging families to track their daily steps. Participants receive a Family Fit Kit, which includes a pedometer, water bottle, and a walker’s guide. Registration is available at any Mobile Stop event.
- **Chino Walks:** A community walking program where participants collectively aim to walk distances equivalent to significant milestones, such as the circumference of the Earth. The program promotes regular physical activity among residents.
- **Hike the Valley:** A hiking program where participants are taken to trail heads and led on varying levels of difficulty hikes by city staff. Shuttle service is offered from the Carolyn Owens Community Center.
- **Healthy Chino Kids:** A comprehensive program focused on providing children with opportunities to be physically active, and educating children and parents on healthy food and nutrition choices. The Healthy Chino Kids program provides all City-operated After School sites and Seasonal Camps with an activity schedule, curriculum, supplies, and Healthy Chino support as needed.
- **Community Garden Workshops:** In partnership with Green Chino and the University of California Cooperative Extension Master Gardener Program, these workshops educate residents on gardening techniques and healthy cooking practices.
- **Healthy Family Day:** An annual event co-hosted with the Chino Valley YMCA, featuring fitness demonstrations, health screenings, kids’ activity stations, and information on nutrition and wellness.



HEQ-1

ACTIVE, HEALTHY LIFESTYLES.
Promote physical activity and enhance the health and well-being of all Chino residents.

Policies

Overall Health and Well-Being

HEQ-1.1 Prioritize the overall health of Chino residents in City strategies, programs, operations, and practices.

HEQ-1.2 Provide a year-round recreation brochure of community events and programs in City parks and community facilities. Events should be geared toward families, youth, and seniors and should include components of physical activity, healthy food, arts, and music.

HEQ-1.3 Explore opportunities to collaborate with local businesses, community-based organizations, Chaffey College, and the Chino Valley Unified School District to expand the reach of Healthy Chino programs and services.

HEQ-1.4 Lead by example with workplace wellness programs and policies that maintain and improve the health and well-being of City employees. Programs may focus on diet, exercise, and incentivizing commute to work by active transportation modes for staff who live in Chino.

HEQ-1.5 Attract and maintain a full range of health care facilities in the community to meet the needs of all residents, including hospitals, acute care facilities, neighborhood health clinics, and mental health service delivery points.

HEQ-1.6 Support neighborhood level interventions that promote aging in place by enabling older adults to continue to live independently through strategies that address the design of buildings, the public realm, and public spaces; the availability and accessibility of transportation and health and supportive services; and opportunities for social participation, civic participation, volunteering and employment.

Physical Activity

HEQ-1.7 Encourage neighborhood design that makes physical activity the easy choice for residents. This may be accomplished through the following strategies:

- Design of homes with front porches and smaller front yards that encourage social interaction;
- Continuous sidewalks, short blocks, and convenient connections to neighborhood destinations that encourage walking and bicycling;

- Traffic calming measures and pedestrian infrastructure such as raised crosswalks, pedestrian refuge islands, and curb extensions that enhances roadway safety; and
- Community events and programming that support active lifestyles, such as organized walking groups, yoga in the park, or block parties.

HEQ-1.8 Design parks, trails, and public spaces - including publicly accessible privately owned open spaces - with features that promote physical activity, such as:

- Kids play structures and interactive sculpture that invites climbing;
- Adult fitness equipment and exercise circuits;
- Drinking fountains;
- Circular or looped paths with distance markers encourage routine walking/jogging;
- Interpretive signage that combines education with physical engagement, like scavenger hunts or historical walking routes;
- Performance/exercise spaces, such as small amphitheaters, open plazas, or shaded pads for yoga, zumba, or dance;
- Games and ground markings, including hopscotch,

maze tiles, or game tables that promote movement and play; and

- Labyrinths, wide walking paths, and tai chi platforms.

HEQ-1.9 In plans for new residential developments, require that project proponents provide for the recreational needs of future residents, including children, youth, older adults, and people with disabilities.

HEQ-1.10 Support new development and infrastructure improvements in existing neighborhoods that enable people to drive less and walk, bike, or take public transit more.

HEQ-1.11 Increase youth and adult participation in existing recreational programs through outreach, promotional activities, and increasing subsidized or free program spots.



Youth recreational programs

HEQ-1.12 Encourage the development of private commercial recreational facilities, such as fitness centers, yoga, dance and martial arts studios, and rock-climbing gyms, to help meet recreational interests of Chino residents.

Healthy Lifestyles

HEQ-1.13 Continue to provide courses, seminars, and informational resources about health and healthy lifestyles at public facilities, including the Senior Center, libraries, community centers, parks, and recreational facilities.

HEQ-1.14 Continue to seek opportunities to partner with public agencies, advocacy groups, and local businesses to organize programming and events that promote healthy lifestyles, food choices, and work environments. Events may include health challenges, bike-to-work days, and sponsored lunchtime events.

HEQ-1.15 Continue to collaborate with the San Bernardino County Department of Public Health, nonprofit organizations, hospitals, health clinics and community groups to improve community health.

HEQ-1.16 Support efforts to allow schools to function as multi-service community hubs providing resources to children and adults in the surrounding neighborhoods.

HEQ-1.17 Expand opportunities for residents to volunteer their time and talents to contribute to community health and quality of life, including volunteer opportunities that encourage residents to socially connect across generations and cultures at the neighborhood level and citywide.



Community engagement events in Chino

Civic and Community Engagement

HEQ-1.18 Encourage inclusive, participatory City processes that emphasize the collaborative exchange of ideas by all segments of the community. Possible strategies may include:

- Continuing to hold public meetings and outreach activities at neighborhood gathering places or community events when feasible;
- Employing a wide-range of outreach methods and activities, including pop-up events, focus groups, community workshops and online surveys, in various languages; and
- Encouraging the participation of DAC residents in civic processes by providing transportation vouchers, translation services, childcare, food, or monetary compensation.

HEQ-1.19 Support efforts that strengthen the ability of community members to participate in local decision-making and engage meaningfully in planning efforts, including increased representation in employment and civic life.

Actions

HEQ-1.A Create a healthy development checklist that outlines strategies that project applicants can incorporate into the design of projects to foster public health and encourage physical activity. The checklist should address site design, building design, traffic safety, air and noise pollution, and community cohesion. Publish the checklist on the City website and provide it in predevelopment consultations with project applicants.

HEQ-1.B Continue to regularly promote participation in City health and recreational programming with email and social media campaigns. Target efforts to increase participation in areas of Chino with lower health outcomes and indicators in particular.

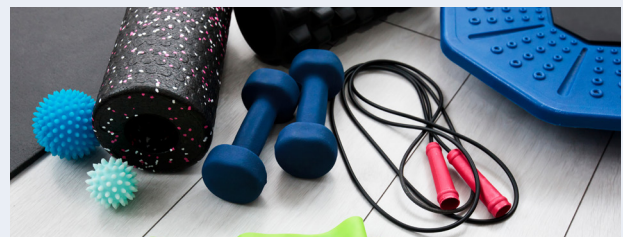
HEQ-1.C Periodically survey community attitudes and preferences concerning recreational programs to help identify changes that can increase participation and further encourage active, healthy lifestyles.

HEQ-1.D During the hottest months of the year, continue working with user groups to reschedule games and practices to another day or time to avoid the hotter times of day.

HEQ-1.E Identify opportunities to add amenities and features in City parks and trail facilities that further promote physical activity, such as those identified in Policy HEQ-1.8.

HEQ-1.F Explore the feasibility of increasing the frequency of Healthy Family Day events that provide mobile health clinics and workshops in disadvantaged communities, run by or in partnership with medical service providers such as Chino Valley Medical Center or the San Bernardino County Department of Public Health, but hosted in local neighborhood facilities such as schools, parks, community centers, and library parking lots.

HEQ-1.G In collaboration with partner agencies, hospitals, and health-care providers, monitor and maintain data related to health outcomes and risk factors, and to use this data to inform new programs to serve the local community.



Gym equipment

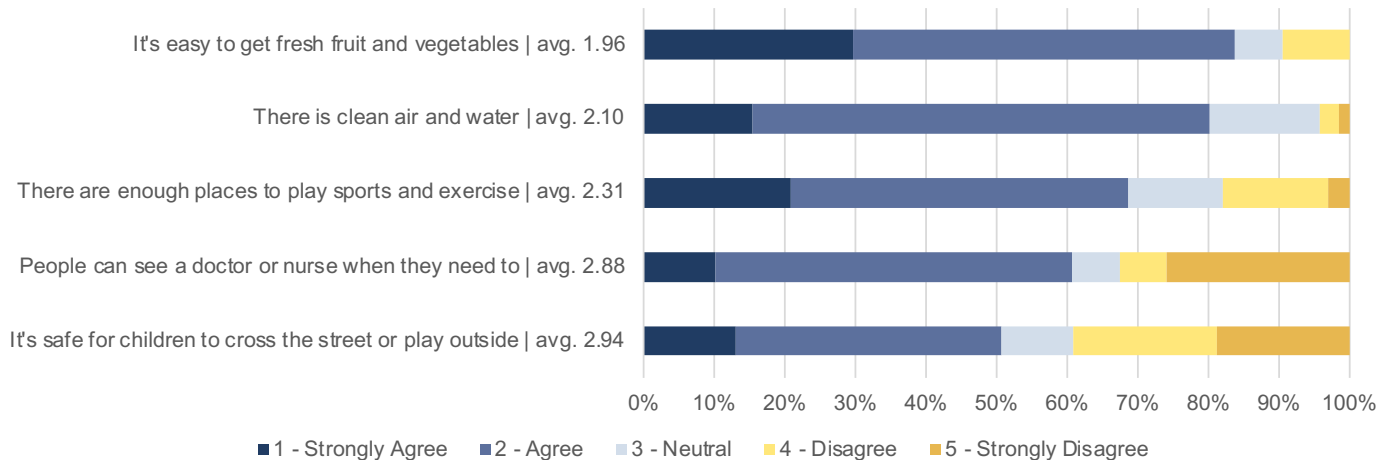
Safe Routes to Schools and Parks

How we choose to travel to schools, parks, stores, and other neighborhood destinations is influenced by a variety of factors: convenience, comfort, safety and even how attractive the route is. The terrain in Chino is relatively flat and the northern part of the city features a rectilinear street grid, which favors walking and bicycling, but the suburban development pattern generally means that commercial areas are physically separated from residential neighborhoods and high summertime temperatures mean that walking and bicycling are not always comfortable and convenient.

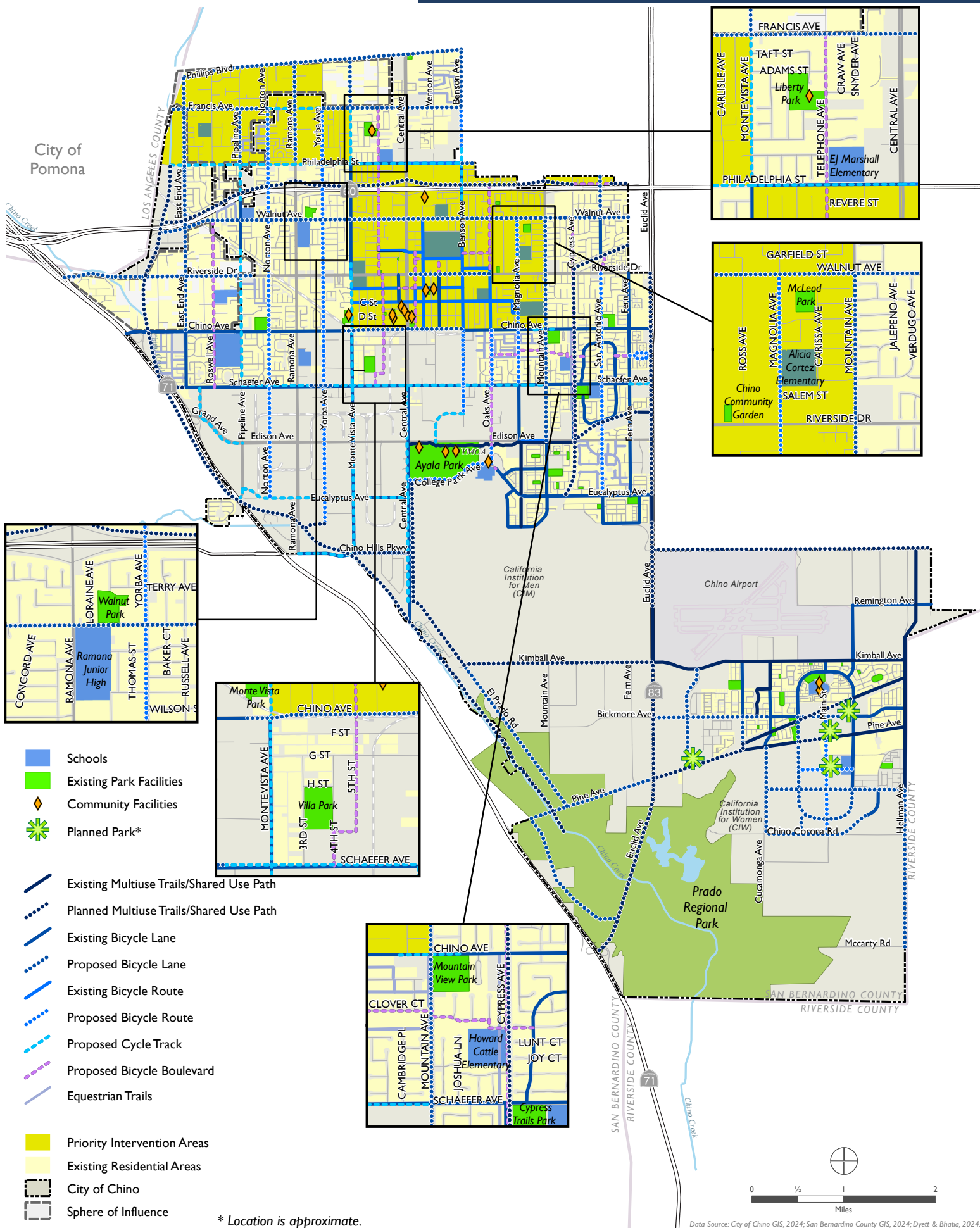
Map HEQ-2 shows existing and planned bicycle and trail facilities in Chino and the connections they offer to schools and parks in the community. In general, the areas best served by existing bicycle routes and trails are the residential neighborhoods adjacent to downtown and in College Park and The Preserve, where development has been guided by specific plans. In other areas there are relatively

few existing facilities, although an extensive network of improvements is planned in the Bicycle and Pedestrian Master Plan. Data on collisions involving cyclists and pedestrians indicate that major arterials like Riverside Drive, Walnut Avenue, and Central Avenue - which run through DACs - have the highest rate of incidents, and a survey of DAC residents conducted for the General Plan found that roadway safety was ranked as a top concern (see **Figure HEQ-1**). General Plan policy prioritizes completion of bicycle and pedestrian infrastructure to help create safe routes to school, parks, and community centers in residential neighborhoods where existing infrastructure is lacking. Increasing neighborhood tree canopy coverage and providing drinking fountains, misters, and water features in parks and public places can also provide respite from summertime temperatures and encourage walking and bicycling in Chino neighborhoods.

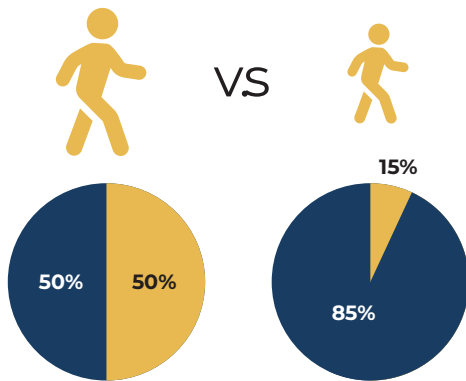
Figure HEQ-1: DAC Neighborhood Priorities



Map HEQ-2: Priority Intervention Areas for Safe Routes to Schools and Parks



Beyond physical improvements, activities and programs can also help encourage increased walking, bicycling, and other forms of active transportation. These can take the form of safety educational programming, events like Walk and Bike to School days, and group activities like walking school buses or bike trains, where group of students walk or ride bicycles to school together with adult supervision. Across California there has been a focus on physical improvement and programs to increase walking and bicycling activity among students at elementary, middle and high schools and improve safety since California State Legislature created the Safe Routes to School (SR2S) program in 1999. The same concepts can also be applied to create safe route for seniors and safe routes to parks and other neighborhood destinations. General Plan policy provides guidance for developing and implementing safe routes solutions, with a focus on involving community members in planning.



In 1969, close to 50% of American children walked to school; today, that figure is 12%. Walking to school has been replaced with motorized transport, particularly in private vehicles driven by parents.

Source: *Safe Transportation Research & Education Center, Institute of Transportation Studies, UC Berkeley, 2007.*

HEQ-2

SAFE ROUTES TO SCHOOLS AND PARKS. Create safer, more convenient walking and biking routes to schools, parks and other destinations in Chino.

Policies

HEQ-2.1 Improve connections to parks, schools and community centers by completing gaps in the pedestrian and bicycle network. Prioritize completion of planned facilities in areas identified on **Map HEQ-2**.

HEQ-2.2 Complement the construction of physical improvements to the pedestrian and bicycle network with outreach and public education regarding roadway safety.

HEQ-2.3 Encourage walking, bicycling, and active transportation among children and youth through events and activities like walking school buses, bike trains, and bicycle rodeos.



School children crossing the road

HEQ-2.4 Identify and address barriers to walking, bicycling and active transportation in Chino neighborhoods, including physical constraints, safety considerations and other factors.

HEQ-2.5 Prioritize safety improvements on roadways that provide connections to parks, schools, community centers and other neighborhood destinations. Consider high visibility crosswalks, traffic calming measures, reduced speed zones, striped or protected bicycle lanes, and landscaped buffers as appropriate to the neighborhood and roadway context.

HEQ-2.6 Use the Traffic Advisory Committee to provide an ongoing forum for discussion of strategies to improve safety and increase walking, bicycling, and active transportation to neighborhood destinations in Chino. The Committee should discuss traffic safety issues at least quarterly and include members with diverse expertise, and address the needs of school-aged children, teens, families, and older adults.

See also Infrastructure Element policies related to the planning and design of roadways for safety.

Actions

HEQ-2.A Upon the next Bicycle and Pedestrian Master Plan Update, incorporate strategies to increase the number of neighborhood trips made on foot, by bicycle, or by active transportation by improving the walking and bicycling environment and promoting safe mobility

practices. Safe routes planning strategies should identify and address the needs of residents of all ages, including children, teens, and seniors, by providing infrastructure, education, and opportunities for community involvement.

HEQ-2.B Seek grant funding for Safe Routes to Schools programs in collaboration with the Chino Unified School District.

HEQ-2.C Partner with homeowners associations, neighborhood watch groups, and other community organizations to conduct annual or biannual walk audits to note walking and biking conditions on streets near parks, schools, community centers. Use the audit findings to identify priorities for programs and improvements.

HEQ-2.D Develop and implement a campaign targeted at safer driving, prioritizing safe speeds around parks, schools, and community centers. Include yard signs, social media, and other communication channels.

HEQ-2.E Establish a social media strategy with regular posts to promote walking, rolling, and bicycling to neighborhood destinations. Community Center staff and neighborhood residents could be invited to help create content for posts.

Summertime Heat

On a summer day in Chino, the city can feel 15 to 20 degrees Fahrenheit hotter than surrounding undeveloped rural and open space areas. This is because key elements of the built environment in the city, including paved streets, parking lots, and buildings absorb and amplify the heat of the sun, unlike vegetation and soil of rural areas. Even after the sun goes down, these surfaces hold heat, causing high daytime temperatures to linger into the night. Additionally, human activities like driving cars and operating factories produce “waste heat” that can aggravate the problem. Urban heat has serious implications for human health, energy consumption, infrastructure, and the environment. Extreme heat can cause heat-related illnesses (e.g., heat stroke), exacerbate asthma and cardiac disease, and even

lead to death. Young children, older adults, outdoor workers, people experiencing homelessness, and those with underlying health conditions are particularly susceptible to heat-related problems, but anyone can experience minor to severe health complications. According to the National Oceanic and Atmospheric Administration in the United States, more people die each year from extreme heat than are killed by storms, floods, and wildfires combined.

While neighborhoods throughout the city feel the effects of increased summertime heat, some areas are more impacted than others. **Map HEQ-3** shows tree canopy coverage in Chino and **Map HEQ-4** shows average summertime temperature in July 2023. The



Children at a splash park on a hot day

lowest summertime temperatures are in portions of Prado Regional Park with dense tree canopy and large water features. Residential neighborhoods with mature tree canopy coverage and plentiful parks and green spaces, like neighborhoods in East Chino and College Park, also tend to experience comparatively lower temperatures. By contrast, locations with large expanses of asphalt and concrete, such as the Chino Airport and industrial sites in Chino's main employment districts experience the highest temperatures. Temperatures in shopping centers on Riverside Drive, Central Avenue, and Grand Avenue also experience hotter summertime temperatures, affecting adjacent residential neighborhoods. As temperatures continue to rise with climate change, the effects of urban heat will be felt even more acutely, and the higher levels of air pollution in neighborhoods adjacent to freeways also compounds the health risk for residents.

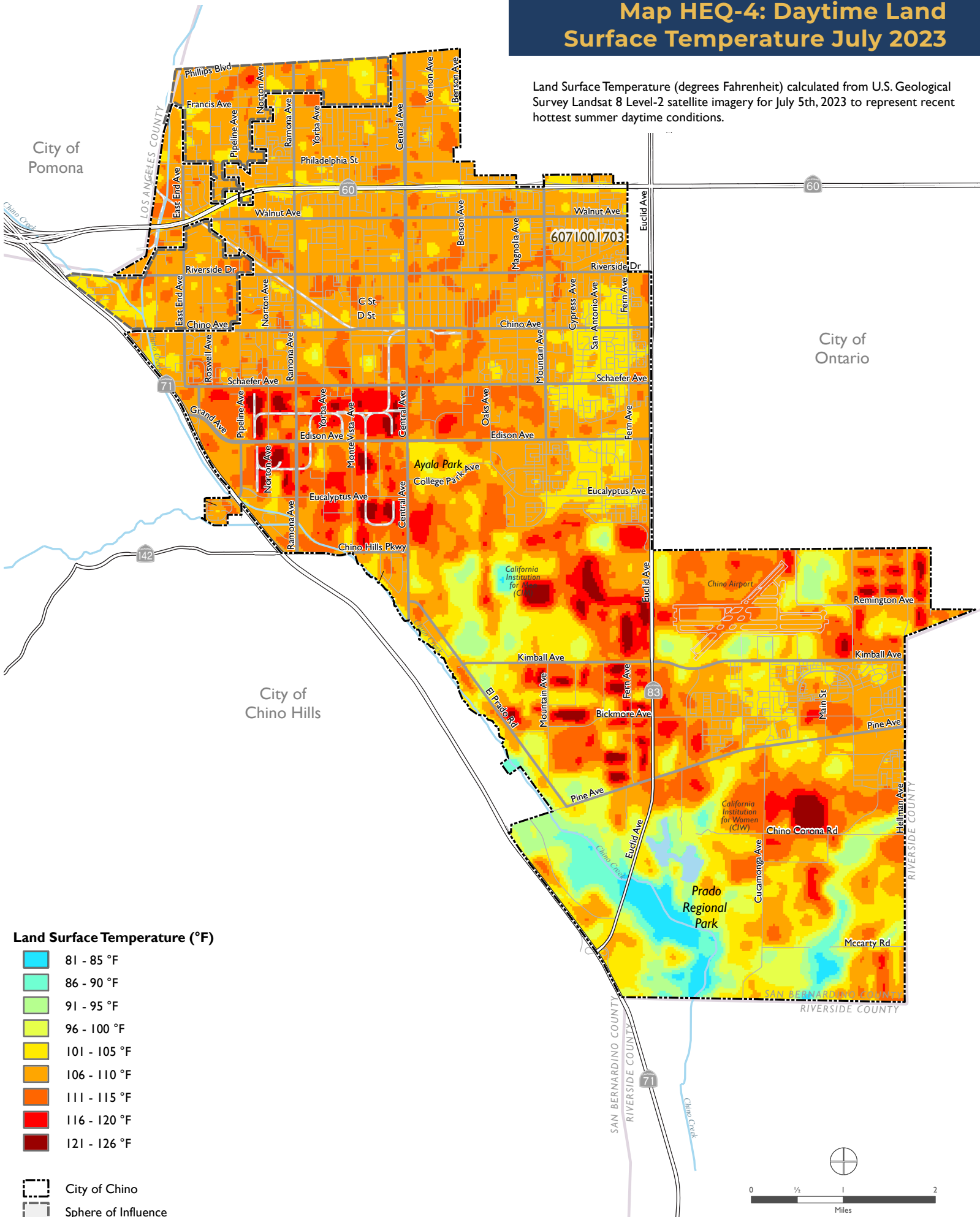
Studies have shown that 25 percent tree canopy coverage in urban areas can reduce temperatures by as much as 8 degrees compared with bare, unplanted areas. While it can take years for newly planted trees to grow to maturity and provide substantial canopy, there are also solutions that can have a more immediate effect, such as the use of UV-reflective treatments and coatings on roofs and building surfaces, porous pavement, misters, and evaporative cooling towers. The California Building Code requires the use of cool roofing strategies for all new development and major remodels in the Inland Empire region. Code requirements can be satisfied through the use of specialized materials to reflect more of the sun's light and emit heat rather than absorb it or through the installation of attic insulation materials and other

techniques for ensuring that energy performance standards are met. The Building Code also identifies voluntary measures that can be applied for energy saving and heat reduction beyond the mandatory requirements. At the ground level, reflective treatments and coatings can also be used on building materials and pavements in combination with shade trees and landscaping to reduce heat. Landscaping, building features, and site design techniques that provide passive cooling and reduce energy demand are also beneficial and can be implemented as new development occurs.

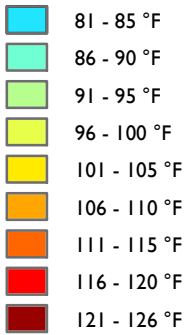
Map HEQ-5 shows heat islands in the city based on projected temperatures in 2045 in relation to residential areas and DACs. While summertime heat is an issue to be addressed citywide, an important focus should be on heat mitigation strategies to address summertime heat in mid-sized heat islands located within opportunity areas that are projected to see significant new development, particularly the Riverside/Central and Philadelphia/Central Opportunity Areas which contain DACs. Implementing heat mitigation strategies in the largest heat islands can also help reduce summertime temperatures in adjacent residential neighborhoods, and in newer neighborhoods that lack mature trees in The Preserve.

Map HEQ-4: Daytime Land Surface Temperature July 2023

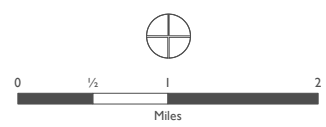
Land Surface Temperature (degrees Fahrenheit) calculated from U.S. Geological Survey Landsat 8 Level-2 satellite imagery for July 5th, 2023 to represent recent hottest summer daytime conditions.



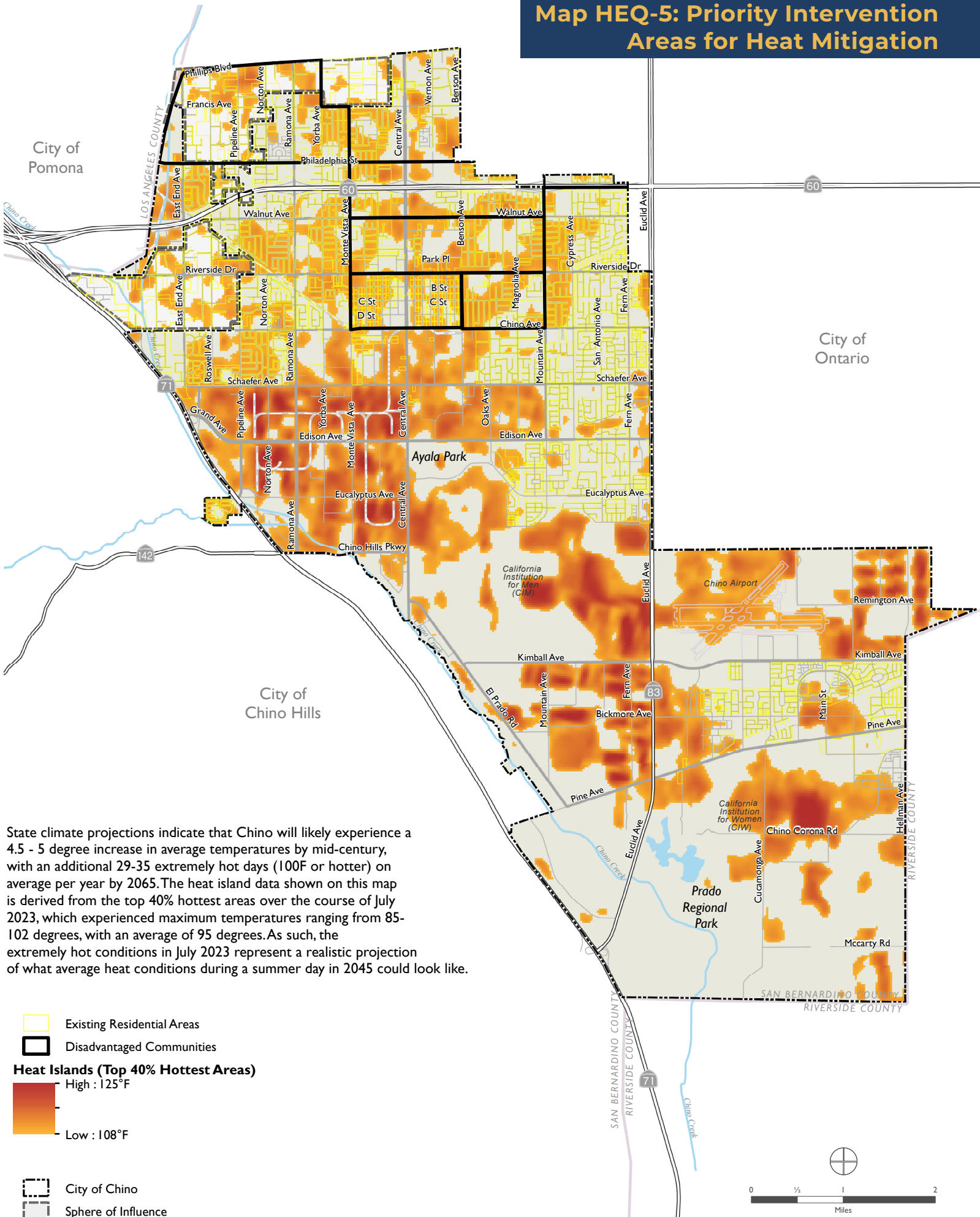
Land Surface Temperature (°F)



- City of Chino
- Sphere of Influence

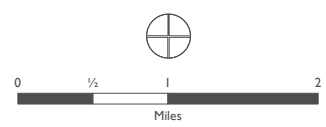


Map HEQ-5: Priority Intervention Areas for Heat Mitigation



State climate projections indicate that Chino will likely experience a 4.5 - 5 degree increase in average temperatures by mid-century, with an additional 29-35 extremely hot days (100F or hotter) on average per year by 2065. The heat island data shown on this map is derived from the top 40% hottest areas over the course of July 2023, which experienced maximum temperatures ranging from 85-102 degrees, with an average of 95 degrees. As such, the extremely hot conditions in July 2023 represent a realistic projection of what average heat conditions during a summer day in 2045 could look like.

- Existing Residential Areas
- Disadvantaged Communities
- Heat Islands (Top 40% Hottest Areas)**
- High : 125°F
- Low : 108°F
- City of Chino
- Sphere of Influence



Data Source : Landsat Collection 2 Level-2 Science Products, U.S. Geological Survey, 2024; UrbanTree Canopy 2018, USDA Forest Service; City of Chino GIS, 2024; San Bernardino County GIS, 2024; Dyett & Bhatia, 2024

HEQ-3 **HEAT RESILIENT CITY.**
 Improve community resilience to the effects of summertime heat.

Policies

HEQ-3.1 Through design guidelines and other means, in all new development promote the use of tree canopy, cool pavements, landscaping, building materials, and site design techniques that provide passive cooling and reduce energy demand. In particular, promote the use of voluntary measures identified in the California Green Building Code (Title 24, Part 11 of the California Code of Regulations) to minimize heat island effects, including hardscape and roof materials with beneficial solar reflectance and thermal emittance values and measures for exterior wall shading.

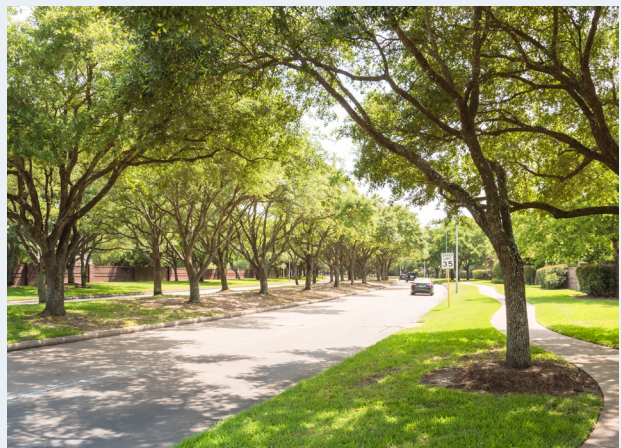
HEQ-3.2 Maintain and periodically update a list of desirable trees that suit soil and climate conditions in specific areas of Chino, promoting tree species that demonstrate greater adaptiveness to higher temperatures, reduced water use, recycled water, and pest and disease resistance.

HEQ-3.3 Promote stewardship of trees and ensure that the design of development projects provides for the retention of trees where possible. Where removal cannot be avoided, the City shall require replacement or appropriate remediation.

HEQ-3.4 Work with property owners and businesses identified in urban heat island hot spots, informed by **Map HEQ-5**, to address the urban heat island effect and reduce ambient temperatures in surrounding residential areas. City actions may include the following:

- Facilitating coordinated action among property owners; and
- Providing information and incentives for cost-effective heat reduction strategies, including voluntary measures identified in the California Building Code.

HEQ-3.5 Pursue pilot projects to test the use of new materials (e.g., landscaping, building materials, and site design techniques) in City infrastructure projects that can mitigate urban heat when implemented at scale. Prioritize projects in neighborhoods with the lowest tree canopy coverage that are most impacted by summertime heat.



Increasing tree canopy can mitigate urban heat effects

HEQ-3.6 Strive to install heat-reducing public amenities in areas most affected by urban heat, prioritizing the areas with vulnerable populations. Amenities could include the following:

- Drinking water fountains or bottle refilling facilities in public parks, at community facilities, transit centers, or other appropriate locations.
- Splash pads, sprinklers, fountains, and other water features in public parks, where appropriate.
- Shade structures and shading elements in parks and public facilities, where appropriate.
- Additional trees planted in passive landscape areas in parks and public facilities.

HEQ-3.7 Encourage Omnitrans to study the feasibility of designing and installing bus shelters that are designed to offer protection and relief from heat, including the incorporation of shade trees, misters, and drinking fountains.

HEQ-3.8 Work with labor organizations, the business community, and County and State health and safety agencies to publicize programs and standards for preventing heat-related illness in employees who work outdoors and publicize precautions for preventing heat-related illness during heat waves.

HEQ-3.9 Continue to open and operate City Cooling Centers during extreme heat events.

Actions

HEQ-3.A Prepare, adopt and implement an Urban Forest Management Plan that acts as a roadmap for effectively and proactively managing and expanding Chino's tree canopy. The Urban Forest Management Plan should address trees on both public and private property and incorporate a set of key performance indicators for monitoring progress toward implementation.



Cooling off on a hot day at a splash park



Expanding tree canopy and shading structures

HEQ-3.B Evaluate cooling techniques and plan for the retrofit of municipal facilities in coordination with energy efficiency upgrades, including administrative offices, community centers, and maintenance buildings. Consider the application of cool roofing materials, cool paving treatments, landscaping, and shading amenities as funding allows.

HEQ-3.C Review development standards and design guidelines and identify opportunities to promote the use of heat mitigation strategies to reduce temperatures in the public realm, particularly in mixed use activity centers. Standards should address the following:

- Building design strategies (varied building heights; setbacks from sidewalks; vertical and horizontal shade features);
- Cooling materials, treatments, and coatings;
- Multiple layers of shading to maximize coverage throughout the day; and
- Street trees, and landscaping.

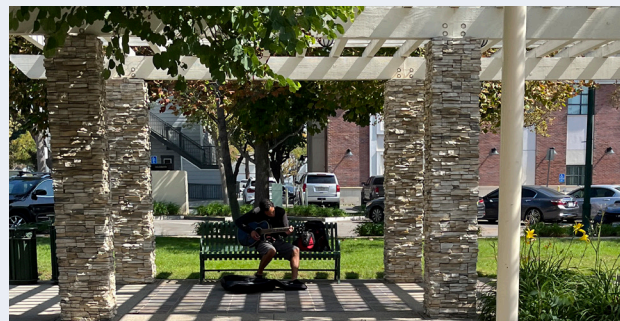
HEQ-3.D Prepare an Arterial Street Landscape Plan or enhance landscape standards to mitigate urban heat island effects. Such standards could include the following:

- A climate appropriate planting palette and recommended plant mix;

- Targets for street tree canopy;
- Shade structure coverage; and
- Asphalt paving coverage.

HEQ-3.E Explore the feasibility of creating an Adopt-A-Tree program in partnership with community-based organizations and neighborhood groups. The program should seek to foster a healthy drought-resilient urban forest by providing interested property owners with tree planting and tree care services, education, and permitting assistance. Newly planted trees typically require frequent watering during establishment (the first 1–3 years), which may conflict with drought restrictions or messaging encouraging reduced irrigation, so the program should prioritize native and drought-tolerant species and provide property owners with water-efficient tree planting

HEQ-3.F Collaborate with the San Bernardino County Department of Public Health to provide information and services to residents to manage heat.



Public areas with shade and seating

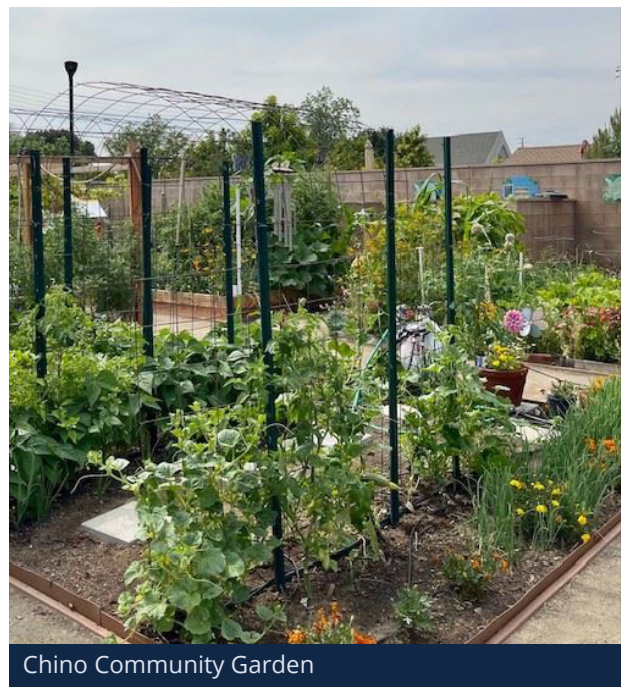
Healthy Food Access

Good nutrition is a cornerstone of well-being at every stage of life, essential for maintaining good health and preventing a wide range of chronic diseases. A balanced diet rich in fruits, vegetables, whole grains, lean proteins, and healthy fats helps regulate body weight, improves digestion, and supports healthy development in children. For adults, a healthy diet improves mood, enhances concentration and productivity, and contributes to a longer, more active life. By contrast, poor nutrition is a major risk factor for obesity, type 2 diabetes, heart disease, stroke, certain cancers, and other preventable conditions. Diets high in sugar, salt, and processed foods can lead to inflammation, high blood pressure, high cholesterol, and poor blood sugar control. Over time, these imbalances increase the risk of serious and often life-threatening health outcomes.

As part of the Healthy Chino initiative, the City offers numerous programs and services to promote healthy eating habits and increase access to healthy food, particularly for youth, seniors, and disadvantaged community members. The Chino Community Garden hosts classes and activities through Healthy Chino, including gardening, cooking, and children's nutrition programs, many offered in Spanish. The Senior Lunch Program provides hot weekday meals at the Chino Senior Center, along with a Senior Mobile Pantry that distributes supplemental groceries without requiring proof of income. For youth, the City provides snacks during after-school care programs in partnership with Chino Valley Unified School District and offers free weekday summer lunches for children and individuals with disabilities at Liberty and Monte Vista Parks.

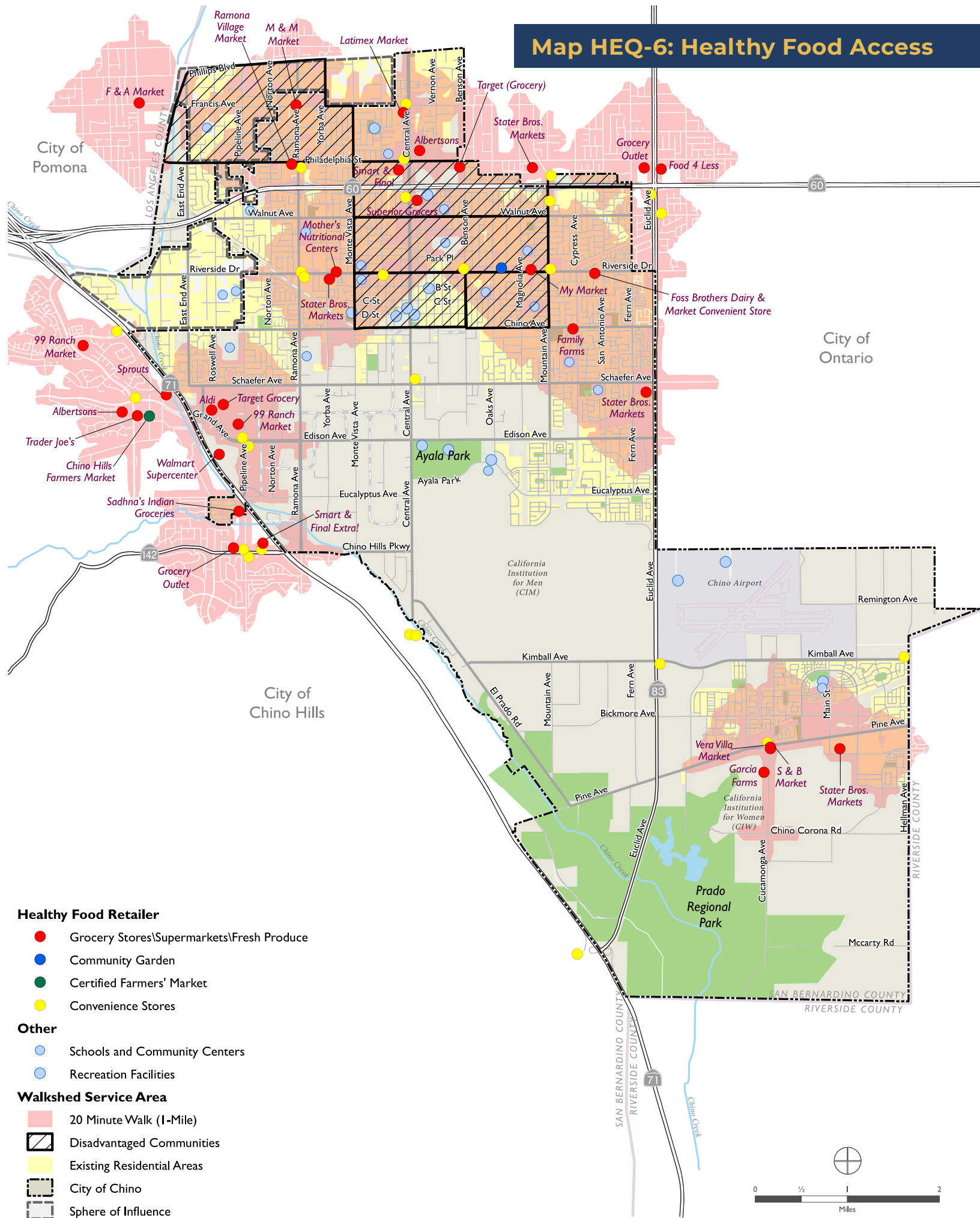
Additionally, Chino Valley Meal Giveaways distribute free Thanksgiving and holiday meal baskets to eligible families with children. The City's Edible Food Recovery Program provides an avenue for local businesses to donate surplus edible food that would otherwise be wasted for redistribution to those in need.

Map HEQ-6 shows access to grocery stores, farmers markets, and other sources of healthy food from residential neighborhoods in Chino. Most residential neighborhoods, including DACs, are located within one mile of sources of healthy food and the City's community gardens are centrally located in the northern part of the city within DACs. General Plan policy seeks to build on this strong network of healthy food resources to further expand access to healthy food and nutritional resources for all residents of Chino, with a continued focus on children, youth, seniors and low-income residents.



Chino Community Garden

Map HEQ-6: Healthy Food Access



HEQ-4

HEALTHY FOOD ACCESS.
Expand access to fresh, healthy foods for all Chino residents.

Policies

HEQ-4.1 Promote equitable access to fresh, healthy, and affordable food throughout Chino.

HEQ-4.2 Promote wider access to and awareness of healthy food resources in Chino, prioritizing disadvantaged communities.

HEQ-4.3 Support community and neighborhood efforts to establish new community gardens with strategies such as:

- Providing land for growing food;
- Offering reduced property tax assessments for land dedicated to community gardens;
- Adopting an urban agriculture incentive zone to facilitate permitting approvals for community gardens;
- Facilitating water access; and
- Sharing information and best practices.

HEQ-4.4 Engage with local growers and community-based organizations (CBOs) on ways to expand regional community supported agriculture (CSA) as an alternative source of fresh and healthy fruits and vegetables for Chino residents, particularly those with limited mobility, limited income, or those furthest from existing grocery stores.

HEQ-4.5 Encourage demonstration gardens, edible gardens, and other sustainable agricultural landscaping alternatives on commercial and institutional properties.

HEQ-4.6 Expand the reach of food distribution activities providing healthy food and groceries to low income residents in Chino by:

- Identifying and facilitating the siting of new distribution points, such as parks and community facilities;
- Promoting the use of volunteers and other cost-effective strategies at food distribution points; and
- Publicizing calls for donations in City communications.

HEQ-4.7 Increase awareness and use of food assistance programs for eligible residents, (e.g. Women, Infants, and Children (WIC) nutrition program and the Supplemental Nutrition Assistance Program (SNAP)) by:

- Providing information in City newsletters, on the City's website, and at community centers and other City facilities.
- Promoting acceptance among local merchants, particularly those serving disadvantaged communities.

HEQ-4.8 Support and promote farm-to-fork festivals, events, and programs that raise awareness of healthy food options in Chino and encourage healthy eating and nutrition.

HEQ-4.9 Continue to increase food literacy among children and youth through collaboration with schools, hospitals, community groups and other partners to develop and deliver programs, activities, and events.

Actions

HEQ-4.A Through the Healthy Chino program, continue to offer healthy food and eating programs and services, such as gardening classes; children’s discovery programs focused on nutrition, physical activity, science, reading, and other garden-focused activities; healthy cooking and grilling classes; and Spanish-language classes about health and nutrition.

HEQ-4.B Assess the feasibility of attracting a farmers’ market to Chino as an opportunity to increase access to healthy food, celebrate Chino’s agricultural heritage, and build community bonds.

HEQ-4.C Work with the Chino Valley Unified School District and local faith-based organizations to explore the possibility of establishing school or church gardens that grow healthy food in partnership with residents.

HEQ-4.D Consider amending the zoning code to incorporate regulatory or process incentives to encourage restaurants that serve healthy food, including fresh, natural menu options that minimize processed foods, added sugars, and excessive sodium and saturated fat.

Clean Air, Water and Soil

Pollution exposure occurs when people come into contact with air, food, water, and/or soil pollutants in the course of daily life. In cities, pollution can come from a variety of different sources, including cars and trucks emitting exhaust, stationary sources such as diesel power generators, solid waste facilities that emit toxic gases, storage tanks that leak hazardous chemicals into groundwater and soil, or even agricultural operations using pesticides in the surrounding area. Ongoing exposure to pollution can worsen existing health conditions and lead to absences from work or school. Long-term pollution exposure can even result in reduced life expectancy. Based on an analysis of CalEnviroScreen data, Chino is most affected by issues related to air quality and hazardous materials, particularly in areas of the City adjacent to former and current industrial and agricultural activities.

Chino is located within the South Coast Air Basin (Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Prevailing westerly to northwesterly winds tend to blow pollutants away from the coast toward the inland areas, and Chino’s location in a valley ringed

by mountains tends to trap air pollutants. The combination of these meteorological and environmental features with a high volume of vehicle and truck traffic in the region results in elevated levels of air pollution. Consequently, the Basin is in “non-attainment” for many federal and State air quality standards, which means that air pollutant emissions exceed acceptable levels for the region. However, overall pollutant concentrations in the Basin have been decreasing since 1975 due to regulations governing motor vehicle emissions and reductions in emissions from electric utilities. SCAQMD maintains air quality monitoring sites located throughout the Basin, including 15 active sites in San Bernardino County. Air pollutant concentrations and meteorological information are continuously recorded at these stations and data is then used by scientists to help forecast daily air pollution levels.

Environmental hazards may also be present in factories or facilities that release toxic chemicals, sites that have been contaminated in the past, pesticides, or other sources of pollution. Federal, State, and local regulatory requirements and site-specific contingency and evacuation plans help to reduce potential threats. In Chino, clusters of hazardous materials sites can be found in areas of past and present industrial activity and where agriculture formerly made use of pesticides, including in the City’s primary employment district south of Schaefer Avenue, adjacent to the airport, on the California Institution for Men property, and in the northeast of the city. In some cases, the pollution was generated outside of the city and migrated by way of contaminated groundwater plumes. These sites are generally undergoing remediation or ongoing monitoring to ensure hazards are remediated and adverse risks to the public are avoided. Remediation is required for future development within these sites, consistent

with federal and State remediation standards. Urban runoff, agricultural runoff, and discharges from confined animal feeding operations in the region have also resulted in the pollution of water bodies in Chino, including Chino Creek, Mill Creek, Cucamonga Creek and Prado Park Lake. Remediation of these water bodies is ongoing under the supervision of federal and State agencies. To protect existing water quality, the Chino Municipal Code establishes measures to control erosion and runoff pollution and requires development projects to prepare a project-level Water Quality Management Plan (WQMP) to identify the inclusion of Best Management Practices (BMPs) relative to stormwater quality and quantity.

Policies in this section prioritize City action on air, water and soil pollution, and coordination with regional regulatory agencies, focusing efforts on protecting residential neighborhoods, schools, and other sensitive uses from air pollution, reducing pollutant emissions, and promoting the use of clean energy and building materials.



Water treatment is critical in protecting quality of neighborhoods and residents’ lives

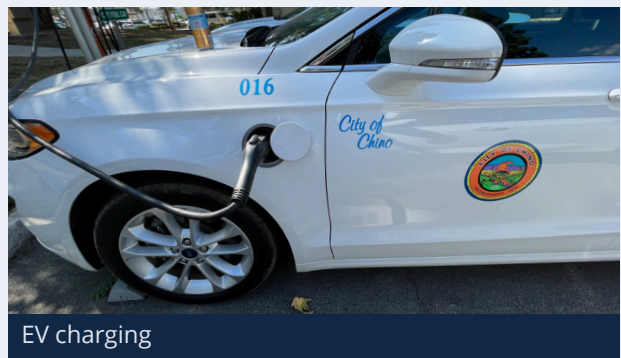
HEQ-5

CLEAN AIR, WATER AND SOIL. Reduce pollution and improve community health.

Policies

- HEQ-5.1** Coordinate air and water quality planning efforts with other local, regional, and State agencies.
- HEQ-5.2** Cooperate with South Coast Air Quality Management District and San Bernardino County Transportation Authority in efforts to promote public awareness about air pollution and control measures.
- HEQ-5.3** Require new development that would locate sensitive uses adjacent to sources of toxic air contaminants (TAC) to be designed to minimize any potential health risks, consistent with State law.
- HEQ-5.4** Ensure that construction and grading activities minimize short-term impacts to air quality by employing appropriate mitigation measures and best practices.
- HEQ-5.5** Consistent with AB98 regulations, regulate new light industrial and warehouse uses in proximity to housing and other sensitive uses and require such projects to route trucks and minimize idling in order to reduce diesel particulate emissions.

- HEQ-5.6** Work with existing industrial and transportation-related business in Chino to improve outdoor air quality through improved operations and practices, such as planning for zero emissions trucks and vans.
- HEQ-5.7** Promote the incorporation of new technologies, materials, and design and construction techniques in private development projects that minimize air pollution, noise, excess heat, and other forms of pollution and its impacts.
- HEQ-5.8** Support and encourage onsite alternative energy production, such as thermal systems, onsite photovoltaic, wind turbines, and other emerging technologies that do not emit air pollutants.
- HEQ-5.9** Continue to purchase or lease of fuel-efficient and low emissions vehicles for City fleet vehicles.
- HEQ-5.10** Ensure adequate buffer distances are provided between offensive odor sources and sensitive receptors, such as schools, hospitals, and community centers.



- HEQ-5.11** Through the development review process, ensure that hazardous material-affected soil, groundwater, or buildings will not have the potential to adversely affect the environment or the health and safety of site occupants.
- HEQ-5.12** Encourage, through redevelopment and retrofitting, phasing out of commercial and industrial building materials such as galvanized roofs that leach metals into storm water runoff and work with business owners to reduce the amount of uncovered industrial and commercial areas where the work activity may contribute pollutants.
- HEQ-5.13** Require construction projects that disturb 10,000 square feet of ground cover revegetate graded areas with native or locally appropriate vegetation to restore biological diversity, minimize erosion and promote groundwater recharge.
- HEQ-5.14** Encourage development to minimize grading related to the topography and natural features in order to limit soil erosion.

See also Land Use and Community Character Element policies related to good neighbor standards for light industrial and warehouse developments. See also Hazards, Safety and Noise Element policies related to hazardous materials handling and storage.

Actions

- HEQ-5.A** Use the Climate Action Plan to guide City actions and investments aimed at reducing greenhouse gas emissions community-wide.
- HEQ-5.B** Update the Municipal Code to provide for district infrastructure systems and onsite alternative energy production.
- HEQ-5.C** Study the feasibility of local measures to promote the use of electric vehicles, including the feasibility of offering incentives such as priority parking for EVs at public facilities and the feasibility of requiring a minimum number of EV-ready parking spaces in new commercial, industrial, and multi-unit residential projects.



Solar panels

Water and Energy Conservation

Water is a precious resource, particularly in the Inland Empire, where in some areas water is imported from other regions of the state and rising average annual daily temperatures are increasingly straining availability. Energy, too, is indispensable to our daily lives and our energy choices impact the natural systems around us in many ways. Responsible management of energy and water will be critical if Chino is to thrive. Individual residents, businesses, and developers all have a role to play in the conservation of local water and energy resources.

WATER EFFICIENCY

Residential development accounts for the largest share of water demand in Chino, followed by commercial and institutional developments including their respective landscaping. Nearly half of the water used by the average household is for outdoor purposes, such as maintaining lawns and gardens. Statewide, the California Green Building Standards Code (CalGreen) requires the installation of water-efficient indoor infrastructure for all newly constructed buildings or structures, which will help reduce water consumption by 20 percent in new construction. Additionally, using drought-tolerant, locally adapted plants throughout the city can save thousands of gallons of water per year and reduce demand for groundwater. Greywater systems, which reuse water from showers, sinks, and laundry, can get multiple uses out of a single gallon of water, and are becoming more common in both new multi-family buildings and as retrofits in single-family homes. Rainwater harvesting can save water for a rainless day: barrel storage can keep water ready for

landscaping irrigation in the dry summer months and can also help residents be prepared for emergencies. Making sure that water can infiltrate into the aquifer keeps the groundwater supply abundant: as water seeps into the ground, it gets filtered by soils and rock and gets naturally stored underground until it is pulled up as drinking water.

As the main water purveyor to the community, the City is primarily responsible for encouraging water conservation within Chino. The City has established water conservation restrictions governing irrigation of lawns and turf and incentivizes efficient water use through a budget-based water allocation rate structure, providing customized water budgets for households and businesses based on their specific indoor and outdoor water needs. In collaboration with the Chino Basin Water Conservation District, the City also implements a variety of programs to promote water conservation and reduce consumption among residents, businesses, and institutions, including the Turf Replacement Program that encourages homeowners to replace traditional lawns with drought-tolerant landscaping, and the Sprinkler Timer Upgrade and Sprinkler Tune-Up Program that provides a no-cost upgrade to smart sprinkler timers that adjust watering schedules based on weather conditions. Through the SoCal WaterSmart program, residents can also access rebates for various water-saving devices and appliances, including high-efficiency toilets and weather-based irrigation controllers.

ENERGY EFFICIENCY

Energy is indispensable to our daily lives and our energy choices impact the natural systems around us in many ways. Southern California Edison (SCE) offers several energy efficiency programs and incentives to help Chino residents lower energy use and utility costs. The Home Performance Plus Program provides a free online energy assessment, personalized advice, access to rebates, and contractor referrals for home improvements. The Energy Savings Assistance (ESA) Program offers no-cost upgrades—such as energy-efficient appliances, lighting, weatherization, and heating/cooling improvements—for income-qualified households. In addition, SCE offers rebates for energy-efficient products like smart thermostats, helping customers make cost-effective, sustainable choices.



Lighting along front lawns and streets

HEQ-6

WISE USE OF RESOURCES.
Use water and energy wisely and promote reduced consumption.

Policies

- HEQ-6.1** Promote energy conservation throughout the community and encourage the use of renewable energy systems and technologies to supplement or replace traditional building energy systems.
- HEQ-6.2** Participate in regional energy efficiency financing programs such as low-interest revolving loan funds, the California Comprehensive Residential Building Retrofit Program, and California First that enable property owners to obtain low-interest financing for energy improvements.
- HEQ-6.3** Promote energy and water use awareness community-wide by informing the community regarding energy audits and incentive programs (tax credits, rebates, exchanges, etc.) available for energy conservation as well as water conservation techniques, services, devices, and rebates.
- HEQ-6.4** Continue to implement energy and water conservation measures in City facilities and operations.
- HEQ-6.5** Promote the retention and reuse of rainwater onsite and promote the use of rain barrels or other rainwater reuse systems throughout the community.

HEQ-6.6 Encourage new development to incorporate as many water-wise practices as feasible in their design and construction.

HEQ-6.7 Conserve water through the provision of water-efficient infrastructure, drought tolerant plantings, and recycled usage to support public parks and landscaped areas.

HEQ-6.8 Conserve water through the planting and maintenance of trees and landscaping, which will provide for the capture of precipitation and runoff to recharge groundwater, in addition to providing shading for other landscaping to reduce irrigation requirements. Ensure that any 'community greening' projects utilize water-efficient landscape.

Actions

HEQ-6.A Use the Climate Action Plan to help guide energy and water reduction efforts.

HEQ-6.B Connect businesses and residents with voluntary programs that provide free or low-cost energy and water efficiency audits, retrofit installations, rebates, and financing by publishing information on the City's website.

HEQ-6.C Seek funding programs to assist low and moderate-income households with renovations and improvement aimed at energy conservation and climate resilience.

HEQ-6.D Encourage City employees to submit energy efficiency and conservation recommendations for City operations and follow up on the recommendations.

HEQ-6.E Periodically review and update City plans, resolutions, and ordinances to promote greater energy efficiency in both existing and new construction in regard to site planning, architecture, and landscape design.



Rainwater harvesting system

Responsible Waste Management

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 packaging. Composting food and yard waste reduces the amount of methane produced in landfills. Moreover, the combination of waste management and diversion strategies can extend the life of existing landfills. The City contracts with Waste Management (WM) for the provision of solid waste, recycling, and organic waste collection services for both

residential and commercial customers. WM offers bulky item pickups for residents and provides educational resources on recycling and composting. In partnership with the San Bernardino County Fire Protection District, the City provides a free household hazardous waste disposal program for residents on every 2nd and 4th Saturdays of each month. Policies in this section reflect Chino's commitment to responsible waste management and diversion with the goal of expanding reduction, reuse, recycling, and composting activities; ensuring compliance with State law; and promoting cost-effective strategies for greenhouse gas reduction and sustainability.

WASTE REDUCTION LAWS IN CALIFORNIA

Landfills are a significant source of greenhouse gas emissions and beginning in the late 1980's, the State passed several laws aimed at reducing the quantity of waste sent to landfills. The landmark Assembly Bill (AB) 341, passed in 2011, mandated commercial recycling and established the statewide diversion goal of 75 percent. AB 1826, passed in 2014, mandated commercial organics recycling. Organics like food scraps, yard trimmings, paper, and cardboard make up half of what is deposited in landfills. Reducing short-lived climate super pollutants like methane will have the most immediate impact on the climate crisis we are starting to see in cities and counties throughout California. To reduce statewide methane emissions in various sectors of California's economy, in 2016, the State signed into law Senate Bill (SB) 1383, the most comprehensive waste reduction mandate to be adopted in California in the last 30 years. SB 1383 required the State to reduce organic waste disposal, including disposal of food waste, green waste, and paper products, by 75 percent by 2025, an amount equivalent to more than 20 million tons annually. The law also required the State to increase edible food recovery by 20 percent over the same timeframe. These laws have significant policy and legal implications for local governments on a statewide level.

HEQ-7 **RESPONSIBLE WASTE MANAGEMENT. Promote cost-effective waste management solutions that reduce disposal in landfills.**

Policies

- HEQ-7.1** Reduce the amount of solid waste disposed in landfills by promoting source reduction and recycling throughout Chino and by expanding the range of programs and information available to residents and businesses, consistent with State requirements.
- HEQ-7.2** Strive to reduce at source, recycle, or compost 75 percent of solid waste generated in the community from the year 2025 forward, consistent with State targets.
- HEQ-7.3** Continue to promote the safe disposal of household hazardous waste through public education.
- HEQ-7.4** Provide information via the City’s website on curbside pick-up of donations by local organizations such as Goodwill and Salvation Army.
- HEQ-7.5** Continue to plan and secure access for recycling and edible food recovery capacity.

Actions

- HEQ-7.A** Continue to monitor compliance and conduct enforcement on non-compliant entities.
- HEQ-7.B** Work with commercial and industrial generators to develop and implement source reduction and recycling plans tailored to their individual waste streams.
- HEQ-7.C** Establish a procurement target for recyclable and recovered organic products used in City operations. The target should be linked to the City’s population.
- HEQ-7.D** Explore the feasibility of providing compost receptacles in parks and public spaces, in addition to trash and recycling receptacles.



Recycling

Healthy Environment

NATURAL RESOURCES AND OPEN SPACE

Chino is home to a rich array of biological resources and natural open space lands, with the most ecologically sensitive areas located in the southern portion of the city. These areas, primarily along the lower floodplains of Chino Creek, Mill Creek, and Cucamonga Creek, support a diverse range of native and non-native habitats, including extensive riparian and wetland systems. Large expanses of undeveloped public land provide critical habitat for sensitive wildlife species, including areas designated Critical Habitat for federally listed species such as the Southwestern Willow Flycatcher, Least Bell's Vireo, and the Western Yellow-Billed Cuckoo. Much of this land is protected from development due to its inclusion in Prado Regional Park, under management by the U.S. Army Corps of Engineers (USACE) and the Orange County Water District (OCWD) as part of the Prado Flood Control Basin. The natural floodplain habitats in this area are vital for ecological function, offering habitat connectivity, foraging areas, and breeding grounds for both resident and migratory species.

Outside of the southern floodplains, much of Chino's landscape is urbanized or historically disturbed due to intensive agriculture and dairy operations. Scattered undeveloped lands within the city's urban footprint—particularly near the California Institution for Men (CIM)—consist mostly of disturbed habitat and non-native grasslands. In these urban and semi-disturbed areas, wildlife diversity is reduced and typically includes species that are well-adapted to human environments,

such as opossums, raccoons, cottontail rabbits, rock doves, house finches, and American crows, although there is still the potential for burrowing owl, migratory birds, and other sensitive species to be present in these areas of the city. While riparian and wetland habitats are generally limited in extent within the urbanized portions of Chino, narrow vegetation corridors remain along sections of Chino Creek and Cucamonga Creek. As these creeks move southward and converge, they transition into broader, more natural floodplains rich in riparian and wetland vegetation. These downstream zones are critical to maintaining the city's remaining native ecosystems and represent the last substantial refuges for native species and ecological processes in the area.



Willow Flycatcher
Source: Tyler Pockette / Tucson Bird Alliance



Least Bell's Vireo

General Plan policy seeks to preserve, protect and enhance natural resources and open space in Chino, recognizing their value for public health, environmental quality and community character.

WATER QUALITY AND GROUNDWATER PROTECTION

The Chino Groundwater Basin is one of the most important and productive groundwater basins in Southern California, providing a vital source of water to over 1.5 million people across western San Bernardino County, parts of Riverside County, and eastern Los Angeles County. Spanning approximately 235 square miles, the basin underlies several fast-growing cities, including Chino, Chino Hills, Ontario, Montclair, Rancho Cucamonga, and Fontana, making it a critical regional source of water. To ensure the long-term and sustainable management of the Chino Groundwater Basin, the Optimum Basic Management Program for the Chino Basin was developed by the Chino Basin Watermaster, an adjudicated agency established under a 1978 court Judgment to manage the Chino Groundwater

Basin. The Watermaster is responsible for overseeing groundwater rights, monitoring basin conditions, and implementing management strategies to ensure the basin's long-term sustainability. The plan focuses on enhancing water supply reliability, improving groundwater quality, and promoting environmental stewardship through collaborative and adaptive management strategies. Core objectives include increasing groundwater recharge using local stormwater runoff and recycled water, preventing the spread of contamination, maintaining a sustainable balance between pumping and recharge (Safe Yield), and optimizing the use of all available water resources. The plan also emphasizes protecting sensitive habitats like wetlands and riparian areas, encouraging regional cooperation among cities and water agencies, and staying flexible to respond to climate change, regulatory shifts, and technological advances. Basin Plan program elements are implemented collaboratively by the Watermaster, Parties of the Judgment, the Inland Empire Utilities Agency and other stakeholders, making it a model for integrated water resource management in growing and drought-prone regions.



Chino Creek Wetlands

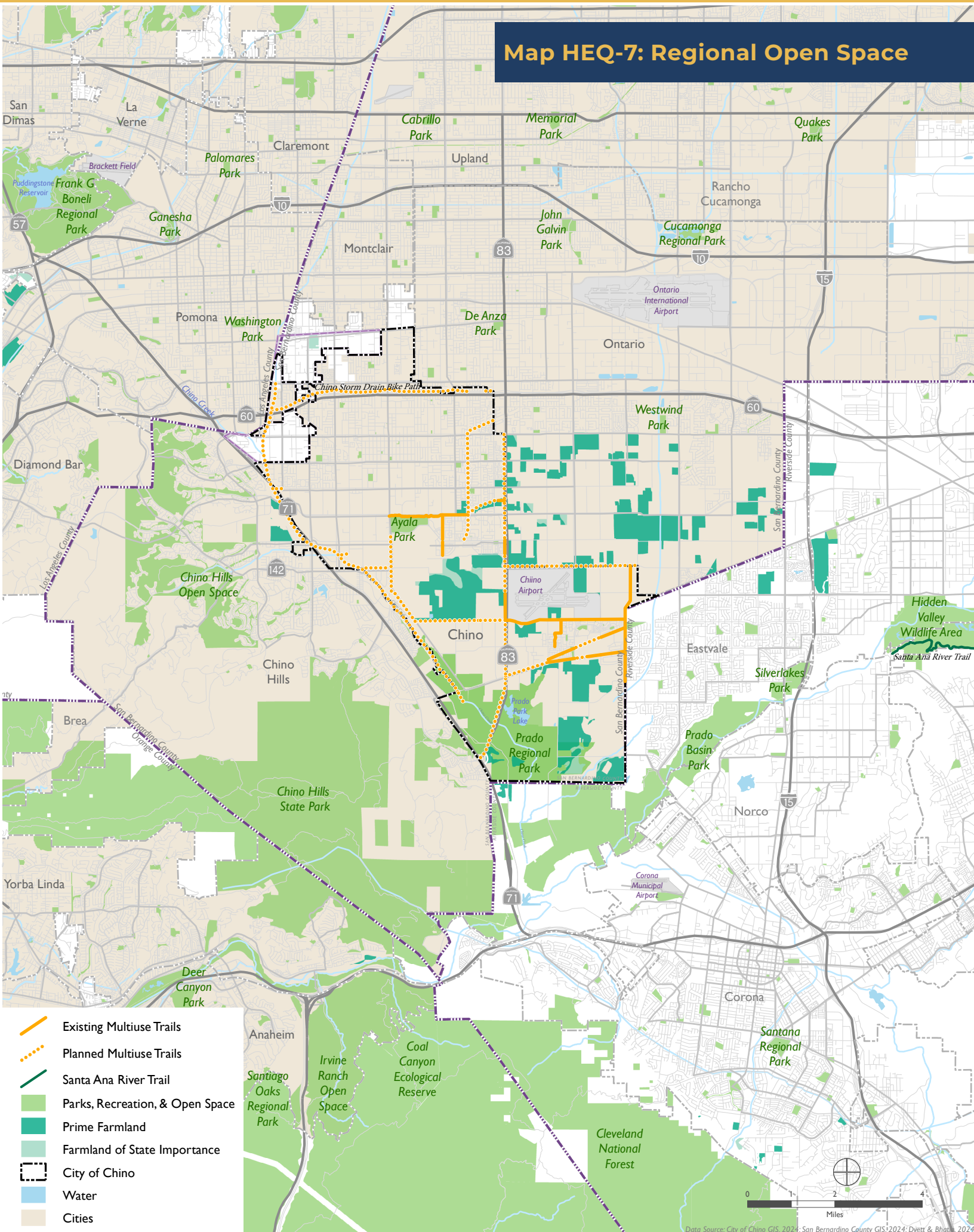
The planning area located within the watershed of the Santa Ana River, which along with its tributaries, stretches approximately 700 miles and serves as a critical waterway for the region. Within this watershed lies the Prado Basin Management Zone, covering the southern part of Chino and adjacent areas. This zone supports several designated beneficial uses as identified by the Santa Ana River Basin Water Quality Control Plan (SARBWQCP), including recreational uses, warm freshwater habitat, wildlife habitat, and habitat for rare or endangered species. To safeguard these uses, the SARBWQCP monitors water quality and mandates action under the Clean Water Act (CWA) Section 303(d) for water bodies not meeting quality standards. Several waterways within the watershed, including Chino Creek, Cucamonga Creek, Mill Creek, Santa Ana River, and Prado Park Lake, have been listed as impaired due to pollutants like pathogens, nitrates, and high coliform counts. To address these, Total Maximum Daily Loads (TMDLs) have been developed to set pollutant limits, representing the maximum amount of a specific pollutant that a water body can receive each day without violating water quality standards. TMDLs provide a pollution “budget” designed to ensure the water body can still support its beneficial uses, such as recreation, wildlife habitat, or drinking water supply. Locally, Chino’s Municipal Code requires new developments to implement Water Quality Management Plans (WQMPs) incorporating Best Management Practices (BMPs) to manage stormwater quality and reduce runoff pollution. These efforts are supported by General Plan policies aimed at erosion and pollution control, ensuring ongoing protection of the watershed’s water quality and ecological health.

REGIONAL RECREATION AND TRAILS

Chino is an important hub for regional outdoor recreation. **Map HEQ-7** shows regional open space lands in and surrounding Chino. The Prado Basin and the Santa Ana Watershed in the southern part of the city offer an array of recreational uses, including biking, hiking, birdwatching, horseback riding, and water-based activities as well as opportunities for ecological education. Prado Regional Park is a 2,000-acre public park that serves as one of the Inland Empire’s largest and most diverse regional recreation areas, offering a wide range of outdoor activities, natural habitats, and community amenities. It is situated along the Pacific Flyway, key habitat for migratory birds and parts of the park connect to the Chino Creek Wetlands and Mill Creek Wetlands, sensitive ecosystems which support habitat restoration and water quality improvement efforts while also providing interpretive trails and signage. Access to Chino Hills State Park is available from the Prado Regional Park, with links to 90 miles of trails that connect to the wider regional network.

General Plan policy supports preservation and enhancement of these important resources and the opportunities for recreation and environmental education they provide. It also supports completion of regional trail connections, such as links to the Santa Ana River Trail, to provide additional recreation opportunities in Chino and ties to the wider regional recreational network.

Map HEQ-7: Regional Open Space



HEQ-8

HEALTHY ENVIRONMENT.
 Preserve, protect and enhance natural resources, habitats, and watersheds in Chino and the surrounding area, promoting responsible management practices.

OPEN SPACE PRESERVATION AND ACCESS

Policies

- HEQ-8.1** Preserve existing open space and agricultural land in Chino, recognizing its habitat value as well as its contribution to healthy air quality, community character, local quality of life.
- HEQ-8.2** Support regional efforts to preserve, protect, and enhance environmentally sensitive areas, including riparian corridors, wetlands, and native grasslands in and adjacent to the planning area.
- HEQ-8.3** Maximize public access to natural resource areas where appropriate, to enhance environmental awareness and provide recreational opportunities.
- HEQ-8.4** Encourage the development of interpretive facilities that provide education about local environmental resources and ecosystems.
- HEQ-8.5** Design stormwater detention basins as multi-use amenities providing recreation, aesthetic value, and wildlife habitat along with flood control.

HEQ-8.6 Where agriculture exists within the City limits, support appropriate commercial activities (i.e. horse stables, agri-tourism) in rural areas in and around Chino.

HEQ-8.7 Require cultural resource assessments prior to the approval of development proposals on properties located in archaeologically sensitive areas.

Actions

- HEQ-8.A** Work with responsible public agencies, including the Omnitrans, Orange County Flood Control District, U.S. Army Corps of Engineers, Prado Regional Park, and Chino Hills State Park, to provide convenient public access to open space lands and trails, except in those areas where public safety would be compromised or significant land use conflicts would occur.
- HEQ-8.B** Work with public agencies and non-profit organizations to establish a coordinated web-presence and region-wide map of open space areas and recreational facilities.
- HEQ-8.C** Partner with public agencies to offer programs that foster local environmental awareness and encourage the protection of natural resources.
- HEQ-8.D** Maintain a map of sensitive archaeological sites in Chino and use it to inform project applicants of the need for cultural resource assessments.

HABITAT CONSERVATION AND SPECIES PROTECTION

Policies

- HEQ-8.8** Cooperate with federal, State, and local regulatory agencies as well as non-profit organizations to promote the responsible stewardship of natural resources and habitats within the planning area.
- HEQ-8.9** Ensure that adverse impacts on sensitive biological resources, sensitive natural communities, sensitive habitat, and wetlands are avoided or mitigated to the greatest extent feasible as development takes place.
- HEQ-8.10** In areas where development (including trails or other improvements) has the potential for adverse effects on special-status species, require project proponents to submit a study conducted by a qualified professional that identifies the presence or absence of special-status species at the proposed development site. If special-status species are determined to be present, require incorporation of appropriate mitigation measures as part of the proposed development prior to final approval.
- HEQ-8.11** Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to mitigate impacts to such areas.

- HEQ-8.12** Promote the use of conservation easements and preserves as means to conserve natural habitats and protect natural resources.

Actions

- HEQ-8.E** Continue to participate in the implementation of regional habitat conservation and restoration programs, including implementation of the Chino Basin Plan.

RECREATIONAL TRAILS

Policies

- HEQ-8.13** Coordinate with public and private entities to link regional open spaces with a network of paths and trails, including connections to Chino's Multi-Use Trail System. Pursue construction of multiuse trails along flood control channels in coordination with partner agencies.
- HEQ-8.14** Expand the City's network of multi-use trails and provide connections from residential and commercial areas to natural open space within the city and to surrounding hillsides, open spaces and other scenic areas. Coordinate expansion of the City's network with existing and planned facilities in neighborhood jurisdictions and the region to support a comprehensive active transportation network.

HEQ-8.15 Provide sufficient resources for the maintenance of trails and staging areas through a combination of grant funding, City resources, and volunteer efforts.

Actions

HEQ-8.F Develop standards for planning, design, management, and maintenance of trails and pathways within parks, preserves, open space, and rights-of-way.

WATER QUALITY AND GROUNDWATER PROTECTION

Policies

HEQ-8.16 Continue to participate in regional efforts to proactively manage surface and groundwater resources and ensure their long-term health and viability, including the Chino Basin Plan.

HEQ-8.17 Preserve natural drainage courses in their natural state to the extent feasible and consider opportunities to naturalize flood control channels.



Flood Control Channels

HEQ-8.18 Maximize the amount of pervious surface in public spaces to permit the percolation of urban runoff while implementing best practices for stormwater pollution prevention.

HEQ-8.19 Facilitate groundwater recharge in Chino by encouraging development projects to use Low Impact Development (LID) practices such as bioretention, pervious paving, and rainwater harvesting systems, and by encouraging private property owners to design or retrofit landscaped or impervious areas to better capture storm water runoff.

HEQ-8.20 Continue to regulate new commercial and industrial activities as well as construction and demolition practices to minimize discharge of pollutants and sedimentation into the stormwater drainage system.

Actions

HEQ-8.G Continue to provide information to residents and businesses regarding proper disposal practices for common household waste items, such as paints, pool chemicals, pesticides, motor oil, and household cleaners and disinfectants.

HEQ-8.H Periodically Review Model Water Efficient Landscaping Ordinance requirements in the Municipal Code for consistency with State requirements, updating as needed.