





Introduction

Planners have become acutely aware of how the condition of communities directly affects our health. The presence or lack of parks, community facilities, safe housing, and environmental pollution—all of these and others influence health and well-being. State legislation has been enacted in recent years to require communities to promote and plan for health and environmental justice. Environmental justice generally refers to a condition where all residents are treated in an equitable and fair manner and any benefits or burdens are distributed in the same manner.

San Bernardino strives to become a healthier community that enables residents, employees, and visitors to live healthy, safe, and productive lives. The City is committed to providing an environment that is clean and healthful; provides a mix and distribution of land uses that support the many functions, services, and jobs within the community; provides safe and healthful neighborhoods and quality housing for residents; ensures the provision of public facilities and services that contribute to quality of life; and seeks public involvement in bettering the health of the community.

The Health and Environmental Justice Element is an elective element of the 2050 General Plan and is intended to convey the high priority that civic leaders place on creating a healthier community.





San Bernardino is committed to providing an environment that is healthy for residents in all the City's neighborhoods, from the downtown to westside to northern San Bernardino.



Regulatory Framework

The Planning for Healthy Communities Act, codified in California Government Code § 65302(h)(1), requires that cities with a designated "disadvantaged community" adopt environmental justice policies, objectives, and goals in their comprehensive general plan. To address this mandate, the element must identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities, to promote civil or civic engagement in the public decision-making process; and to prioritize projects and programs that improve the condition of disadvantaged communities.

Chapter Organization

The Health and Environmental Justice element is organized into three sections—an introduction; planning context; and a series of goals, policies, and programs. Topics addressed include:

- Reduction of pollution exposure
- Improvement of air quality
- Active living opportunities
- Access to healthy food choices
- Safe, sanitary, and healthy housing
- Equitable access to public facilities and services
- Active community engagement in public decisions

Relationship to Other Elements and Plans

The Health and Environmental Justice (HEJ) Element is closely related to nearly all elements in the 2050 General Plan. It is supported by an "environmental scan" prepared in conjunction with the General Plan. The HEJ Element seeks to reduce negative environmental impacts due to safety, noise, traffic, and other features found in the Safety, Circulation, Land Use, and Noise elements. At the same time, the HEJ Element seeks to ensure adequate access to opportunities in housing, public services and facilities, employment, health care, and other services that are articulated in other general plan elements, such as Housing, Public Services and Facilities, Parks/Recreation/Trails, Circulation, and Economic Development.



Achieving the Vision

San Bernardino residents have made clear the importance of a clean and healthful environment and that this objective directly influences their health and well-being. According to the environmental scan prepared for the 2050 General Plan, the City faces challenges to providing a healthful environment for residents. Pollution exposure, socioeconomic factors, and the need for community services combine to limit the ability of residents to reach their potential.

San Bernardino thus faces two realities—one more or less envisioned or aspired to and the other being where the community is today. The first is the place that San Bernardino can become—an active, health-oriented community that builds on natural resources and inherent potential to ensure that all can attain health. The second is the San Bernardino of today: a City rich in history and cultural diversity, but with definite opportunities to improve the health and well-being of its citizens through policy and intentional efforts.

While these two realities are currently distinct, 2050 General Plan provides the framework to bring these realities closer. This requires thoughtful attention to goals, policies, and programs that are clearly linked to improvements in health and well-being. To that end, this element furthers the vision by supporting:

- An increase in the opportunities for residents to be physically active through the provision of community amenities.
- The reduction of pollution and protection of residents from the negative impacts of exposure.
- An adequate level of community facilities and services for all neighborhoods.
- A diverse supply of affordable housing that is available to residents of all circumstances.
- The promotion of equity in neighborhood planning so that all residents can benefit regardless of circumstances.

The following presents the planning context, goals, and policies to improve the health and well-being of the San Bernardino community.



Planning Context

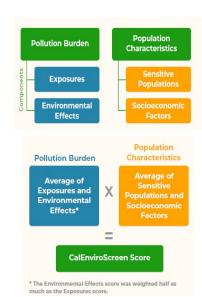
State law requires a general plan to address the unique burdens facing disadvantaged communities. A disadvantaged community is defined as 1) an area that has been identified by CalEPA as being disadvantaged; or 2) a lower income area disproportionately affected by pollution. CalEPA has issued a comprehensive database and mapping tool, called CalEnviroScreen (CES), to assist cities with identifying neighborhoods that are considered disadvantaged so their needs can be addressed.

CES uses a model of 21 indicators of pollution burden and population characteristics in a census tract to identify a disadvantaged community. Census tracts that score among the worst 25 percent statewide are considered disadvantaged. As recommended by the California Attorney General, these determinations also considered added refinements, including but not limited to: additional models (e.g., Healthy Places Index and EJScreen); cumulative health risk burdens; health surveys from the federal government; and local data.

Of the 50 census tracts in San Bernardino, the following rankings were found based on a review of scores.

- Composite (Summary). **Thirty-seven** tracts score as disadvantaged with respect to their composite score.
- Pollution Burden. **Nineteen** tracts score as disadvantaged for pollution burden, all within the San Bernardino-Muscoy area.
- Population Characteristics. **Forty** census tracts score as disadvantaged based on population characteristics alone.
- Health Scores. **Forty** census tracts score as disadvantaged with respect to health outcomes provided by the CDC.
- Tribal designation. The tracts within the Yuhaaviatam of San Manuel Nation are also designated as disadvantaged.

Taken together, 42 census tracts, or approximately 80 percent of census tracts, in San Bernardino are disadvantaged. **Figure HEJ-1** shows the location of disadvantaged tracts in San Bernardino. Additional details on this methodology can be found in the environmental scan, prepared in support of this element.





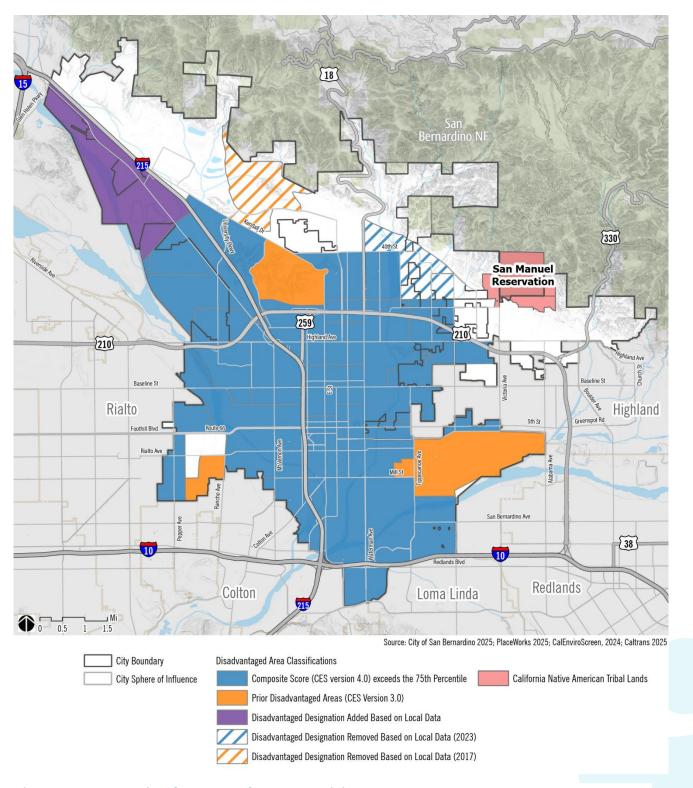


Figure HEJ-1 Disadvantaged Communities



Environmental Pollution

As an industrialized community and transportation hub of the region, the City of San Bernardino has many sources of pollution. Some are local in nature and some are regional. As noted earlier, 19 census tracts fall within the highest quartile of pollution levels and exposure statewide. All of the tracts are concentrated in the San Bernardino-Muscoy area.

The following paragraphs include a description of the primary environmental pollution concerns affecting the City.

Air Quality and Pollution

San Bernardino has long been adversely impacted by poor air quality. One of every four days has unhealthful or poor air quality due to ozone, diesel particulate matter, and coarse particulate matter. While San Bernardino has a high concentration of heavy industry, the source of pollution is primarily transportation related, such as vehicles, railroads, and trucking, which support the logistics industry. These pollutants and many others are linked to elevated levels of asthma, chronic respiratory conditions, and cancer.

Toxic Releases from Industry

Commercial and industrial activities also have the potential to release toxic pollutants to the air, water, and soil. San Bernardino has industrial and commercial facilities that are legally permitted by regional air quality agencies but produce air emissions that contribute to poor air quality. Though no census tract is considered disadvantaged for toxic releases from industry, the vast majority of census tracts are ranked among the third quartile statewide (50th to 74th percentile) for toxic releases.

Groundwater Quality

San Bernardino faces groundwater quality threats due to legacy plumes and more common contaminants to drinking water. One-third of all census tracts score above the 75th percentile with respect to potential water quality threats, which exceeds the threshold for a disadvantaged community. The City addresses these threats with state-of-the-art treatment technologies, enforcement of regulations, and regular monitoring. As a result, the City's drinking water meets all state and federal government standards.



Lead Exposure

Lead is a toxic heavy metal with no safe levels for exposure. Historically, lead was an additive in gasoline and house paint. San Bernardino has many older homes that used lead-based paint or had lead pipe fixtures. Lead was phased out in gasoline and paint during the 1970s and in water pipes in the 1980s. However, older homes and water pipes might still contain lead. About 60 percent of all census tracts, primarily in the San Bernardino-Muscoy area, are in the fourth quartile for lead concentration.

Cleanup Sites

As an older industrial city, San Bernardino has many contaminated sites, but the most extensive contaminated sites are Superfund sites, legacy or closed landfills, and other brownfields. More than 75 percent of all census tracts fall within the third or fourth quartiles for cleanup sites in San Bernardino. The primary sources of contamination (e.g., Newmark-Muscoy; Norton Air Force Base; and the Rockets, Fireworks, and Flares Superfund sites) are being remediated. However, there are smaller parcels in the City that have on-site contamination.

Traffic Density

California cities, and San Bernardino in particular, have the largest network of freeways in the nation. San Bernardino is crossed by four freeways and major arterials. These major freeways and arterials are the source of heavy vehicle traffic and pollution emissions. Exhaust from cars and trucks is the main source of air pollution in southern California. Exhaust fumes contain toxic chemicals that can damage DNA, cause cancer, make breathing difficult, and cause low-weight and premature births. In eight San Bernardino census tracts, the level of traffic density is in the top quartile.

Solid Waste and Hazardous Waste

San Bernardino has approximately a dozen legally permitted solid waste facilities as well as dozens of hazardous waste generators. While these facilities are located citywide, the majority are in industrialized areas around the airport or along the I-215 corridor. Taken together, 12 census tracts score in the fourth quartile for the concentration of solid waste and hazardous waste facilities. While these facilities do not mean a tract is disadvantaged, they place a census tract at greater risk of environmental pollution.



Resident Health

Health and well-being are not only influenced by the broader environment, but by the health conditions of residents and the health care that is available to them. As such, the environmental scan, prepared in conjunction with the 2050 General Plan, identified key metrics regarding the health status, health conditions, and health risks among San Bernardino residents.

Health Status

Health status is a measure of how people perceive their health—excellent, very good, good, fair, or poor. Poor health status is measured by the percentage of adults (aged 18+years) who report 14 or more days of poor health during the past month. While the majority (75 percent) of adult residents enjoy good health, 25 percent of San Bernardino residents are in poor health. San Bernardino ranks 22nd of 24 cities countywide with respect to resident health. The percentage of adults in San Bernardino with poor health was 18 percent for mental health and 14 percent for physical health.

Health Conditions

Of the many health conditions tracked by the federal government, eight conditions are present in more than half the census tracts and are more prevalent than 75 percent of census tracts in California. Four conditions—obesity, high blood pressure, high cholesterol, and diabetes—are related to diet and physical exercise. Two conditions—asthma and lung disease—are related to air pollution and tobacco use. The final two conditions are arthritis and heart disease. The areas with the highest prevalence are neighborhoods south of SR-210 and unincorporated planning areas, such as Muscoy.

Health Risks and Behaviors

Lifestyle choices can help prevent many common chronic diseases and even some types of cancer. Compared to many communities in San Bernardino County, however, San Bernardino has some of the highest prevalence rates for poor health risks and behaviors. The most common health risk includes obesity, lack of physical activity, current smoking, and insufficient sleep. These health risks and behaviors are more prevalent among residents than 75 percent of all census tracts in California. Addressing these underlying health risks and behaviors will be needed to improve communitywide health.



Socioeconomic Conditions

Demographic factors, known as social determinants of health, have been found to play a significant role in health outcomes. Research demonstrates strong correlations between income, age, education, employment status, and disabilities and a variety of health outcomes. Thus, it is important to understand areas of the City that have a high percentage of residents who are more susceptible to poor health.

As measured by CalEnviroScreen, the following is a summary of key social determinants of health in San Bernardino.

Education, Unemployment, and Income

Education and employment are determinants of economic mobility. Without education, one is unlikely to secure a living wage job that offers long-term security. Approximately one-third of residents older than 25 years do not have a high school education, and more than 50 percent of residents earn income below twice the federal poverty limit. As a result, approximately two-thirds of all census tracts in San Bernardino are disadvantaged by education attainment, unemployment, and poverty.

Housing Affordability and Cost Burden

In San Bernardino, housing rents and prices continue to increase much faster than real increases in income. This results in housing overpayment (paying more than 30 percent of income for housing) and overcrowding (living in housing that has more occupants than habitable rooms). Housing overpayment is widespread—39 percent of owners and 60 percent of renters overpay, while 16 percent of households live in overcrowded housing, but the prevalence is double among renters versus homeowners.

Health Outcomes

CES tracks a limited number of health conditions and outcomes, such as asthma, heart disease, and low birth weight rate. According to CES, as discussed in the technical report, physical and mental health in the City ranks among the worse quartile statewide, and conditions are most acute in disadvantaged areas. The percentage of census tracts in San Bernardino that are disadvantaged by health condition are: 80 percent for asthma, 60 percent for low-birth weight infants, and 82 percent of census tracts for residents with heart disease.



Goals and Policies

The General Plan envisions a healthy community for all residents. This section outlines how the goals and policies, individually and collectively, will help effectuate the vision of a healthier community.

Healthy Food

Having healthy food available and accessible to residents allows people to make healthier food choices. San Bernardino is served by two dozen chain grocery stores, including discount grocers. Additional smaller grocers and markets cater to the City's Asian, Indian, Filipino, and Hispanic residents. The City also has six community gardens (e.g., Veterans Garden, Garden of Health, Akoma Unity Center, Arrowhead Grove) and a dozen food pantries.



Akoma Community Garden

At the same, San Bernardino also has an abundance of fast food and convenience stores. The 10 largest chain fast food and convenience stores alone total 85 outlets. But the prevalence of convenience foods is higher because there are also many non-chain fast food outlets. San Bernardino also has an abundance of stores—almost 400—that are licensed to sell alcohol, tobacco, or both. As a result, a majority of the census tracts have a high concentration of these stores.

Food insecurity is an issue in San Bernardino. Food (in)security refers to the ability to afford nutritionally adequate and safe food. People who are food insecure are disproportionally affected by diet-sensitive chronic diseases. As noted earlier, San Bernardino has a very high poverty rate. As a result, approximately one-third of San Bernardino adults are food insecure, which is one of the highest rates in the county and well above the county average of 23 percent.

The lack of accessibility to affordable healthy foods and prevalence of tobacco and alcohol outlets are related to key health indicators. Within the County, the City has the third highest prevalence of adult obesity (50 percent), binge drinking (18 percent), and tobacco use (18 percent). Moreover, between 85 and 90 percent of census tracts in San Bernardino rank as disadvantaged in obesity and tobacco use. These findings also appear in surveys of San Bernardino youth.

Figure HEJ-2 shows the distribution of grocers in San Bernardino.



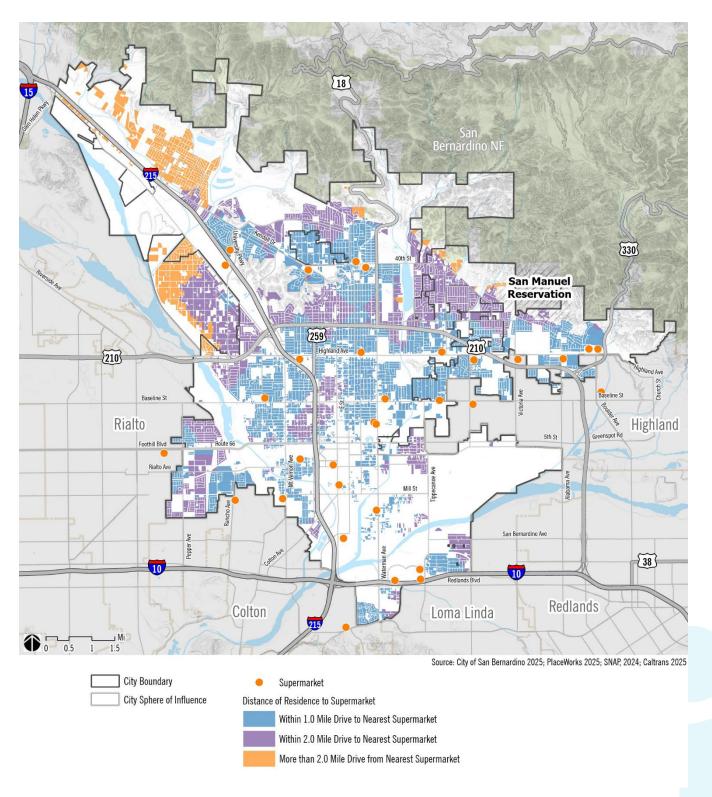


Figure HEJ-2 Access to Grocery Stores



Goal HEJ-1 Food Availability

Ample and affordable opportunities for residents to readily access a wide variety of healthy nutritional choices along with a supportive environment that curbs alcohol and tobacco use.

- **Fresh Food Supply**. Support the development of permanent community gardens and farmers markets in appropriate areas, consistent with existing zoning, health, and safety requirements.
- **Grocery Stores.** Attract and work to retain full-service chain and ethnically tailored grocery stores and markets that offer a broad range of healthy and fresh items and that are conveniently located to neighborhoods.
- **Nutrition Assistance**. Support and fund organizations that provide and supplement meals for income-eligible residents, seniors, children, people with disabilities, and other need groups to the extent feasible.
- **Edible Food Recovery**. Require commercial businesses, such as grocers, and public institutions to recover the maximum amount of surplus edible food that would otherwise be disposed of to feed those in need.
- **Retail Alcohol.** Continue to regulate retail stores and other commercial uses selling alcoholic beverages; consider limiting new stores and/or limiting the issue of permits in areas with an overconcentration of uses.
- **Retail Tobacco.** Continue to regulate, when in the interest of public health and welfare, the location and operation of stores selling tobacco and vaping products or smoking in areas that affect the general public.
- **Recovery Programs**. Support and expand the development and implementation of programs operated by community-based organizations that help residents end addiction to tobacco and alcohol.



Active Living

Opportunities to improve physical activity can help to address the health conditions noted earlier. Parks allow residents to improve fitness and related skills, while bicycle routes and pedestrian routes provide additional opportunities for active living. As such, state law requires the general plan to promote physical activity through the provision of parks, bicycling routes, walking routes, and other means.

San Bernardino maintains 39 parks providing 470 acres of parkland. Four schools operate under a joint City-school agreement that allows schoolyards to remain open for limited community use. Based on the goal of five acres of parkland for every 1,000 residents and current population of 225,000, the City has a shortfall of 625 acres. Moreover, access is an issue: only one-third of homes are within a 20-minute walk of a park (see **Figure HEJ-3**). While the City has successfully rehabilitated its parks, a shortage in parkland remains.

The City's bicycle network includes 19 developed lane miles of routes, a fraction of the 114 lane miles planned in the community. Most of the planned routes are for bike lanes that are designated by striping, signaling, or marking. Bikeways physically separated from the street make up just under one-third of planned improvements. While the City is improving the bicycling network, the work is tedious because it may require changes to lane widths or recapture of right-of-way.

San Bernardino's sidewalk network is planned for approximately 1,060 lane miles but only 68 percent of the network is built. Of the sidewalks built, residents report that many segments need significant repairs or widening to make them safe and useable for pedestrians of all ages and abilities. In addition, amenities such as safe crossing, improved lighting, and sidewalk connections are also important to encourage residents to walk. In short, significant improvements and additions to the sidewalk network are needed.

The City recognizes the need to provide, expand, and improve opportunities for active living through parks, recreation facilities, bicycle routes, and sidewalks. While the City has demonstrated great success in rehabilitating its parks, additional efforts are needed to address the bicycle and sidewalk network. Prioritizing areas with deficits in active living infrastructure is also needed. The following goal and policies are designed to achieve the above objectives.





Nicholson Park, before and after



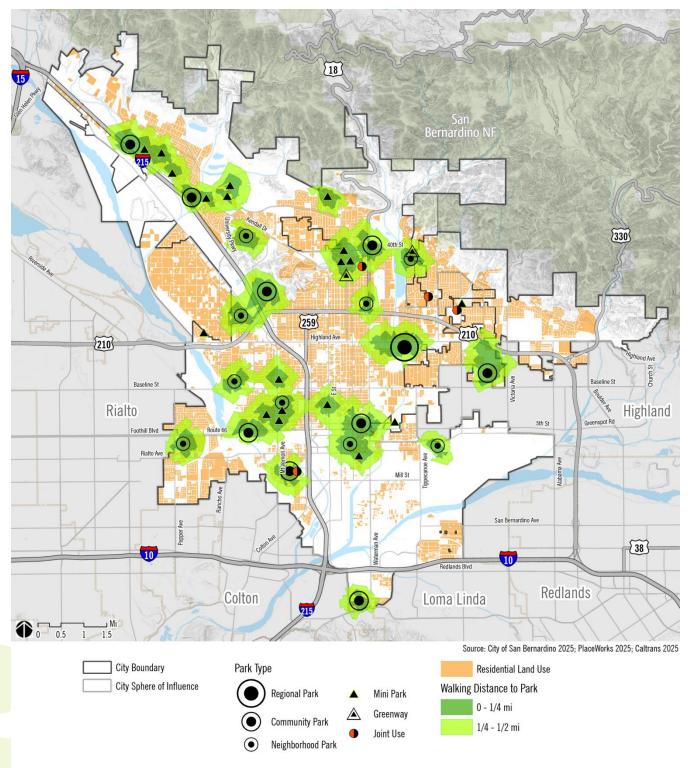


Figure HEJ-3 Access to Parks in San Bernardino



Goal HEJ-2 Active Living

An equitable and interconnected network of parks, trails, sidewalks, and community facilities that support active recreational activities that improve the health and well-being of residents.

- **Park Equity.** Prioritize equity in the provision, location, and design of parks and recreational programs so that residents—regardless of age, ability, or neighborhood—have access to park and recreational opportunities.
- **Bicycle Routes.** Prioritize the development of bicycling routes that are connected with parks, neighborhood centers, and other locations to encourage residents of all ages and abilities to bicycle to destinations.
- **Pedestrian Routes.** Accelerate the completion of the pedestrian sidewalk network, including but not limited to ADA-compliant ramps, wide enough sidewalks for different users, large enough trees to provide shade, and aesthetic features to encourage walking.
- **Community Centers.** Seek to build and/or expand the number and breadth of community centers (e.g., senior centers, libraries, etc.) with the goal of making them a central meeting place accessible to all neighborhoods.
- **Recreation.** Facilitate the development and provision of recreational activities and programs that are active and passive, affordable and accessible, and are sensitive to the limitations of residents of different ages and abilities.
- **Public Safety.** Routinely evaluate the safety of public infrastructure that promotes active living, including parks, bicycle and pedestrian routes, safe routes to schools, and neighborhoods to encourage active living.
- HEJ-2.7 **School Programs.** Where feasible, support local schools in their provision of after-school activities as a means to ensure that children and youth have opportunities to be physically active regardless of where they live.



Housing Opportunity

The Housing Element is the City's seminal housing policy plan that primarily addresses housing production and affordability. State law also emphasizes the importance of safe, sanitary, and fair housing. What emerges from different state laws is a more inclusive definition of housing opportunity—one that affirms the ability of all residents to attain and retain affordable, safe, and sanitary housing in a neighborhood that is safe with complementary amenities.

The Housing Element notes that three measures—overcrowding, overpayment, and substandard conditions—are used to determine the adequacy, affordability, and safety of housing. With respect to overcrowding, 16 percent of households live in overcrowded housing, but the prevalence is double among renters compared to homeowners. Housing overpayment is also widespread—39 percent of owners and 60 percent of renters overpay for housing. Finally, the prevalence of substandard housing is often cited by residents.

Due to the age of housing in the community, solutions for ensuring safe and sanitary housing should also address the physical condition of housing and property, the construction materials used, and how the home is maintained. Energy efficiency, improved ventilation, and other green building standards can improve respiratory and general health. Removal of lead-based paint or other lead hazards and periodic radon testing can also improve the health of the home. Local property maintenance codes are an essential tool for ensuring safety.

Homeownership is a key pathway to improved housing security for residents and, ultimately, the creation of intergenerational wealth. Yet homeownership rates in San Bernardino are modest—the fourth lowest among all 24 cities in San Bernardino County. The reasons for the City's low homeownership rate are many. Residents are predominantly lower income with a high incidence of poverty. Housing prices continue to climb faster than increases in real income. Lower income residents cannot keep pace with rising costs.

The following goal and policies, in tandem with those in the Housing Element, will help improve residents' ability to attain and maintain safe and affordable housing that is suited to their needs.



Goal HEJ-3 Housing Security

Improved housing security where residents have the opportunity to attain and maintain housing that is affordable, safe, and sanitary in a neighborhood that is healthful.

- **HEJ-3.1 Housing Element.** Implement the goals, policies, and programs in the City-adopted Housing Element, with an emphasis on efforts to increase the diversity, quality, and affordability of housing in community.
- **HEJ-3.2 Housing Diversity.** Promote the development and availability of a diversity of housing types, products, and prices that allow for residents of all life stages, incomes, and circumstances to live in San Bernardino.
- **HEJ-3.3 Housing Rehabilitation.** Encourage the rehabilitation of housing (e.g., electrical, plumbing, life safety) and/or remediation of health conditions (lead, mold, asbestos, etc.) to ensure safe and healthful housing.
- HEJ-3.4 **Green Housing Practices.** Support housing construction practices, where initiated by developers, that use materials and finishes that are free from asbestos, volatile organic compounds, "forever" chemicals, and other chemicals known to be hazards.
- **HEJ-3.5 Housing Security.** Employ mobile home rent stabilization, housing preservation protections, and other innovative approaches to maintain housing security for residents, particularly for those with low income and special needs.
- **HEJ-3.6 Healthy Neighborhoods.** Strive to provide neighborhoods with ample public services and facilities; parks and open spaces; and infrastructure that provides safe, healthful, and quality residences.
- Proactively implement code enforcement of rental units and expeditiously respond to code enforcement complaints from renters; require compliance with the City's property maintenance ordinance.



Groundbreaking for Lutheran Social Services Campus



Public Facilities and Services

Public facilities and services include public improvements, public services, and community amenities (Gov't Code § 65302[h][4][B]). Examples of public facilities and services could include community centers, libraries, transit, parks, safe drinking water and wastewater services, active transportation infrastructure, flood control, and health care. These public facilities provide services that improve health outcomes and opportunities for residents.

The environmental scan, prepared in support of the 2050 General Plan, included an analysis of the level and equitable provision of public facilities and services by geographic area of the community. Some of the key findings are:

- **Fire Services.** The vast majority of residential neighborhoods are within a five-minute drive of fire stations and within industry standards for fire response times.
- **Park Facilities.** Only 10 percent of homes are within a 10-minute walk from a park, and 27 percent are within a 20-minute walk, revealing a need for more park coverage.
- **Transit Service.** With the City's 14 transit routes, 80 percent of lower income households live within a half mile of a transit route, and 90 percent of jobs are within a half mile of transit.
- **Public Safety.** Crime levels remain high and are 50 percent or higher than California and the county government, with the highest rates south of SR-210.
- **Health Care Facilities.** Approximately 46 percent of residents live in an area with a shortage of primary care, and 90 percent live in an area with a shortage of mental health care.

Like many communities, shortages in facilities and services are often exacerbated by historic fiscal shortfalls. The City Council monitors the level of capital improvements by council district to better understand the relationship of improvements to need between geographic areas. The City is committed to a fair, just, and equitable distribution of public facilities so that all areas have adequate levels of services regardless of location or status. The following goal and policies are intended to further achieve this objective.



Goal HEJ-4 Public Facilities and Services

Availability of a complementary mix of community facilities, transit service, public safety, employment and educational opportunities, and health care facilities for all neighborhoods in San Bernardino.

- **Community Facilities.** Ensure that decisions to locate new parks, recreational facilities, community centers, libraries, and other related community facilities take into account the current need within neighborhoods and are prioritized for underserved neighborhoods.
- HEJ-4.2 **Transit Equity.** Work with transit providers to provide demand-responsive and affordable transit options for residents, including disabled, seniors, and students, that is accessible to all neighborhoods in the City.
- **Public Safety Equity.** Ensure that all residents, regardless of the location of each neighborhood, receive public safety services (fire and police) that are adequate to meet industry standards and maintain the safety and health of their families and neighborhood.
- **Employment Opportunity.** Support the expansion of employment opportunities for residents to secure living wage jobs in the community through a combination of vocational training, specific skills development, business attraction strategies, and city assistance.
- **Educational Opportunity.** Encourage, support, and facilitate efforts, through partnerships with local schools and nonprofit educational organizations and groups, to improve access to high quality, affordable education, including preschool, elementary, secondary, and college.
- HEJ-4.6 Health-Care Facilities. Attract health-care providers, including primary and mental health care, both subsidized and market rate, to reduce the shortage of health professionals in the community as a way to improve the options available to residents.



Pollution Exposure

California law requires that all local governments, especially those with environmental justice concerns, assemble a series of goals, policies, and programs to reduce pollution exposure and ensure a living environment that is safe and healthful for residents. Yet as an older industrial community, San Bernardino faces significant challenges in fully addressing current sources of pollution as well as the legacy of pollution from prior land uses.

As discussed in the environmental scan, CalEnviroScreen notes that most neighborhoods throughout San Bernardino are disadvantaged, and almost half of all census tracts are disadvantaged due to the level of pollution emissions and exposure alone. These tracts fall within the San Bernardino-Muscoy area, as designated by the South Coast Air Quality Management District, and extend to all industrial areas and most residential tracts, as highlighted in **Figure HEJ-4.**

Some of the significant sources of pollution are:

- Release of pollutants to air and soil from heavy industrial uses, power plants, vehicle and truck emissions, and the railyard.
- High risk of groundwater threats from legacy Superfund sites and other contaminants.
- Cleanup of past hazardous materials due to landfills, Superfund sites, and other land contamination.
- High levels of noise along major transportation corridors that exceed healthy levels.
- High levels of lead in older neighborhoods and residential areas near major transportation corridors.

Local governments have limits in addressing sources of pollution. Many sources are permitted by regional and state agencies and are subject to regulation, reporting, and enforcement by these agencies. State or federal regulatory agencies often oversee site cleanups. Nonetheless, the following goal and policies are intended to provide broad guidance for the City to support, require, or enforce regulations that reduce environmental pollution.



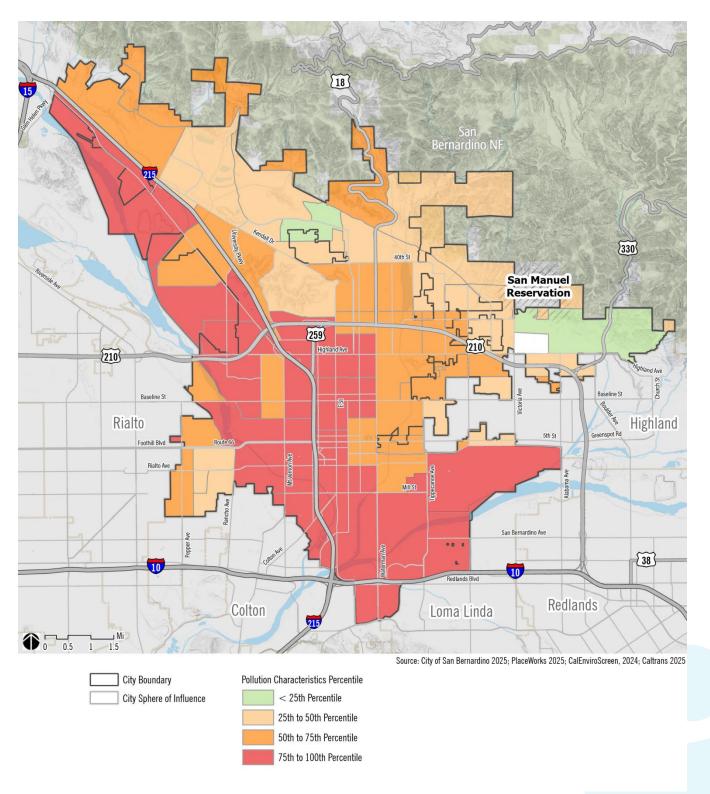


Figure HEJ-4 Disadvantaged Areas for Pollution



Goal HEJ-5 Reduction in Pollution

Reduction of the level of pollutant emissions and potential exposure from mobile and stationary sources of pollution in San Bernardino so as to protect the public's health, safety, and welfare.

Policies

HEJ-5.1 Sensitive Land Use Adjacent to Sources of Pollution.

Discourage the development of sensitive land uses (e.g., schools, playgrounds, housing, health-care facilities, and elder and childcare centers) within 500 feet of sources of air pollution. Sources of air pollution include but are not limited to freeways, railyards, mining, and industrial uses with manufacturing, dust emissions, or high truck traffic.

- **Railyard Air Pollution.** Support the reduction of pollution exposure and adverse health impacts from the railyards. Work with BNSF to reduce the level of on-site pollution generated from mechanical equipment and switcher locomotives; monitor air pollution emanating from the yard as a result of expanded rail volume.
- **Trucking Routes.** Develop, maintain, and amend as needed a comprehensive system of local truck routes that meets the needs of the City's logistics economy while protecting residential and sensitive land uses from the air pollution emissions from trucks. Require logistics uses to mitigate impacts to the extent feasible.
- HEJ-5.4 Air Quality Monitoring. Work with the AB617 working group and other agencies to track air pollution, both stationary and mobile, to evaluate air quality and track air emissions such as particulate matter (PM), black carbon, fugitive dust, and other key pollutants.
- **Pollution Impacts.** Require new or substantially expanded industrial and manufacturing uses to conduct an analysis of impacts from pollution emissions. Require implementation of pollutant mitigation measures determined to be feasible at the time of project approval.
- **HEJ-5.6 Brownfield Remediation.** Continue to work with state and federal regulatory agencies to ensure that contaminated sites or brownfields from legacy land uses



in San Bernardino are adequately remediated prior to development or site reuse. Where new development is not proposed, work with appropriate agencies to compel property owners to clean up the site.

- **HEJ-5.7 Hazardous Waste Generators.** Require all users, producers, and transporters of hazardous materials and waste in San Bernardino to follow legal requirements to clearly identify the materials they store, use, or transport and to notify the appropriate City, county, state, and federal agencies in the event of a spill.
- **Groundwater Protection.** Continue to regulate the spreading and extraction of water from the Bunker Hill Basin in the City to prevent or correct spreading practices or extraction operations that could interfere with or interrupt or degrade the performance of the interim remedy for the Newmark Superfund site.
- HEJ-5.9 Health Risk Assessments. As allowed by CEQA and state law, require that new qualifying projects prepare a cumulative health risk assessment to determine whether construction or operational impacts exceed established risk thresholds; require that developers demonstrate mitigation of impacts prior to the approval of the project.
- HEJ-5.10 Illegal Waste Dumping. Actively enforce City prohibitions for illegal dumping of wastes and hazardous waste on public and private lands so as to protect public health and safety, the environment, and community aesthetics in collaboration with the county as necessary.