Environmental Justice Existing Conditions Report for the City of Imperial

Prepared For:

City of Imperial
420 S. Imperial Ave.
Imperial, California 92251
Contact: Othon Mora, Community Development Director

November 2025

TABLE OF CONTENTS

Figures

Tables

1 INTRODUCTION

Environmental justice regulations in California are aimed at improving the health and safety of disadvantaged communities through informed planning and policy decisions. This existing conditions report provides an analysis of the environmental justice landscape in the City of Imperial (City), aimed at informing the development of policies and programs to address environmental justice. It examines existing conditions across a range of factors impacting the City and identifies areas and communities with environmental justice issues. The analysis assesses the effects of pollution exposure, infrastructure, physical activity, access to amenities, housing conditions and affordability, and general civic engagement in the City. This assessment aims to highlight key environmental justice issues to guide the City in creating policies that promote health, equity, and resilience for all residents, in communities with environmental justice issues.

1.1 OVERVIEW OF ENVIRONMENTAL JUSTICE

Environmental justice is defined by California Government Code Section 65040.12 as "the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." It aims to ensure the availability of a healthy environment for all people; reduce pollution burden for populations and communities experiencing adverse effects; promote meaningful participation of populations and communities most impacted through accessible engagement and technical assistance; and incorporate recommendations from populations and communities most impacted by pollution into environmental and land use decisions

1.2 REGULATORY FRAMEWORK

California has enacted a series of statutes to ensure that environmental justice is integrated into local and regional planning. These laws require cities, counties, and regional agencies to identify communities disproportionately affected by pollution and other environmental burdens, and to adopt policies that reduce exposure, improve infrastructure and services, and expand opportunities for civic participation. Collectively, the framework is designed to align land use, housing, transportation, air quality, and infrastructure planning with principles of equity and public health. The following subsections summarize the key legislation guiding environmental justice planning in California.

1.2.1 SB 1000

With the adoption of Senate Bill 1000 (SB) 1000 in 2016, California Government Code Section 65302(h) was amended to include requirements related to the incorporation of environmental justice into local general plans. SB 1000 requires local governments to address pollution and other hazards that disproportionately impact low-income communities and communities of color within their jurisdiction as a way to proactively plan for and address environmental concerns when developing and updating components of the general plan. These requirements are summarized below:

- 65302(h)(1) adds to the required elements of the general plan an environmental justice element, or related goals, policies, and objectives integrated in other elements, that identifies disadvantaged communities;
- 65302(h)(1)(A) requires local governments to identify objectives and policies to reduce exposure to pollution, including improving air quality, and any unique or compounded health risks in disadvantaged communities, and to promote public facilities, food access, safe and sanitary homes, physical activity in disadvantaged communities;
- 65302(h)(1)(B) requires local governments to identify objectives and policies to promote civic engagement in the public decision-making process in disadvantaged communities; and
- 65302(h)(1)(C) requires local governments to identify objectives and policies that prioritize improvements and programs that address the needs of disadvantaged communities.

1.2.2 SB 535

SB 535 (2012) established requirements for directing minimum levels of Greenhouse Gas Reduction Fund investments to disadvantaged communities and tasked the California Environmental Protection Agency (CalEPA) with defining those communities based on geographic, socioeconomic, public health, and environmental hazard criteria. CalEPA and the Office of Environmental Health Hazard Assessment (OEHHA) developed CalEnviroScreen, a screening tool used to help identify communities disproportionately burdened by multiple sources of pollution and population characteristics that make them more sensitive to pollution. In the City of Imperial, Census Tract 110.00 is in the highest 25 percent of overall scores in CalEnviroScreen 4.0 and would be classified as an SB 535 disadvantaged community.

1.2.3 SB 244

SB 244 (2011) was enacted to address inequities in unincorporated communities lacking basic infrastructure such as potable water, wastewater, storm drainage, and paved roads. It requires cities and counties to plan for disadvantaged unincorporated communities in their general plans and requires Local Agency Formation Commissions (LAFCOs) to consider disadvantaged unincorporated communities in their municipal service reviews.

REQUIREMENTS FOR LOCAL GOVERNMENTS

On or before the next adoption of its housing element, Government Code Section 65302.10(b) requires that each city and county review and update the land use element of its general plan, based on available data, including, but not limited to, the data and analysis developed pursuant to Section 56430, of unincorporated island, fringe, or legacy communities inside or near its boundaries. The updated land use element shall include the following criteria:

- Government Code Section 65302.10(b)(1) requires cities and counties to identify and describe each "island community" or "fringe community," as defined, that exist within that city's sphere of influence that is a disadvantaged unincorporated community.
- Government Code Section 65302.10(b)(1) requires cities and counties to provide an analysis of water, wastewater, stormwater drainage, and structural fire protection needs or deficiencies for each of the identified communities in the land use element.
- Government Code Section 65302.10(b)(1) requires cities and counties to provide analysis in the land use element of potential funding mechanisms that could make the extension of services and facilities to identified communities financially feasible.

1.3 GEOGRAPHIC CONTEXT

The City is located in California's southern desert region, in the northern portion of Imperial County. The City is located north of El Centro and approximately 10 miles north of the U.S.–Mexico border. The City's location within the Imperial Valley, along with its proximity to regional transportation corridors, agricultural lands, and neighboring jurisdictions, shapes its development patterns and environmental conditions.

1.3.1 Sphere of Influence

The City's sphere of influence (SOI) encompasses areas where future growth and service extension may occur, but which are currently outside the City's incorporated boundaries. These areas, along with adjacent unincorporated communities, are important to consider in environmental justice planning because they may face gaps in infrastructure and services. The City's boundary and SOI are shown in **Figure 1.**

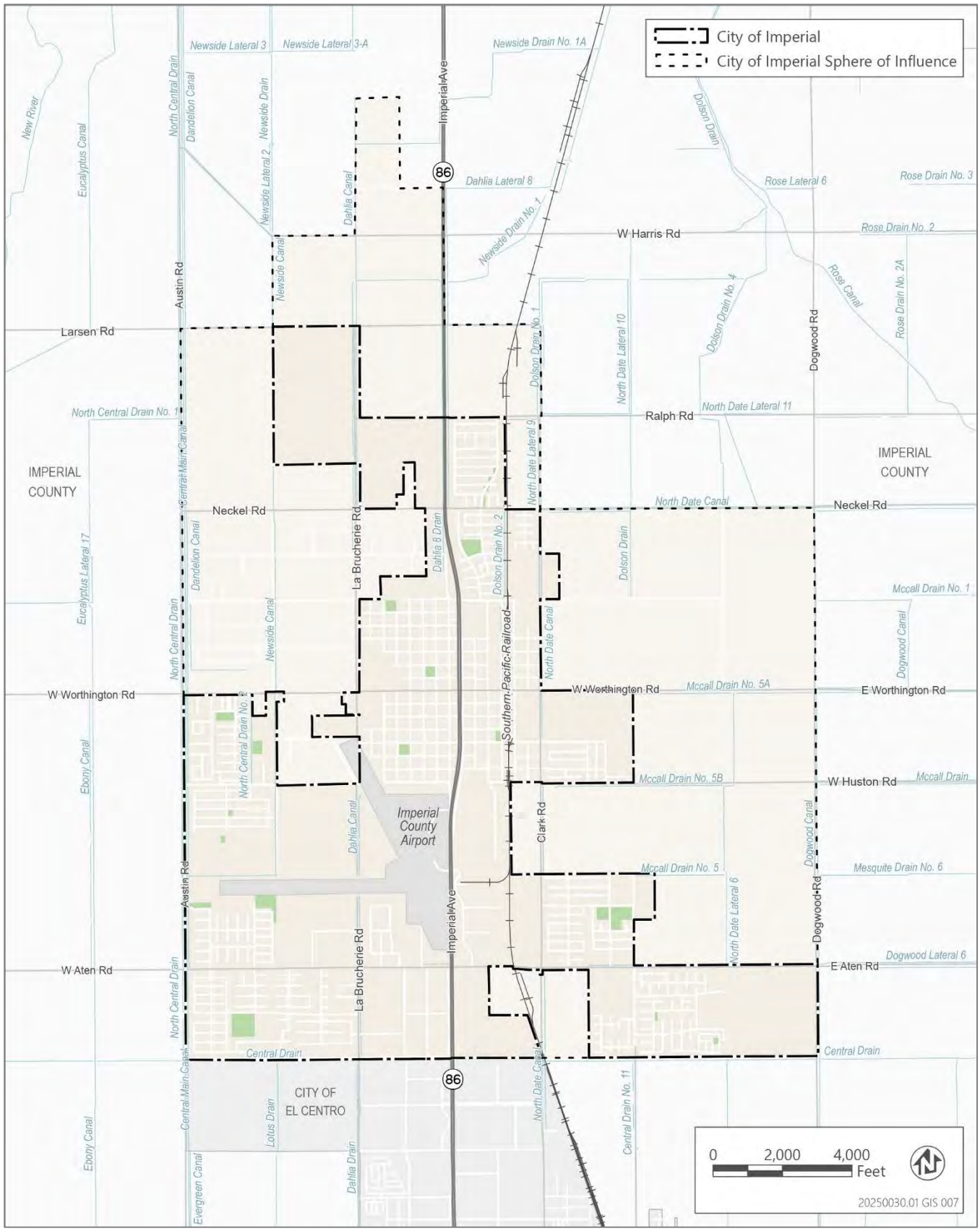
1.3.2 Neighborhood Boundaries

Within the City, defined neighborhoods provide a useful scale for evaluating community conditions, including exposure to pollution, access to facilities, and housing conditions. The names of different neighborhoods are shown in Figure 2.

1.3.3 Geographic Unit of Analysis

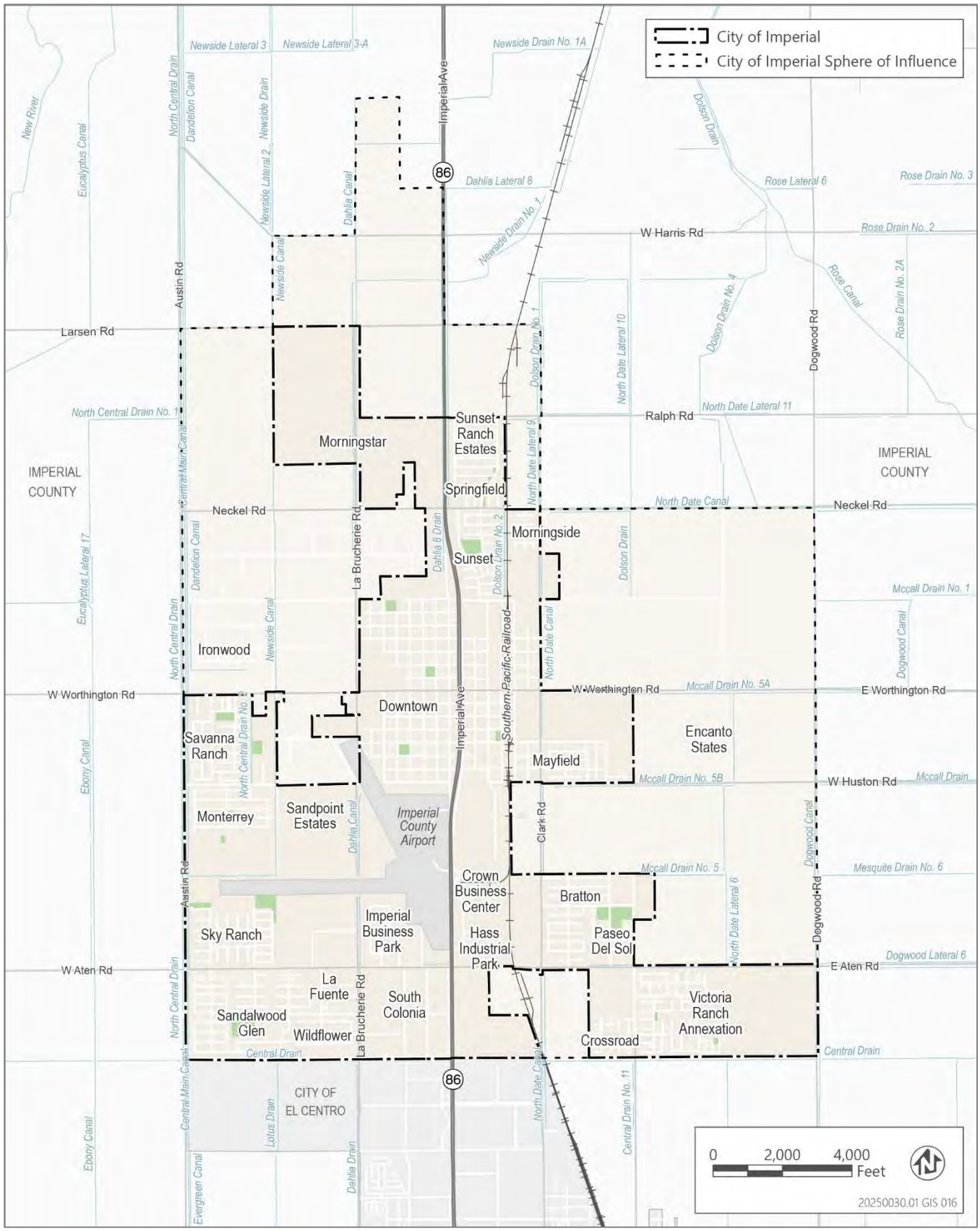
This analysis presents data at different geographic unit of analysis, derived from census geographies, including the City of Imperial, County of Imperial, State of California, and individual census tracts, and census block groups, consistent with the geographic units used US Census American Community Survey. These boundaries provide a standardized framework for assessing pollution burdens, population characteristics, and socioeconomic conditions across the City and its surrounding sphere of influence. Census tracts within the City are shown in Figure 3 and block groups within the City are shown in Figure 4.

CalEnviroScreen 4.0 uses the U.S. Census Bureau's 2010 census tract boundaries as a geographic unit of analysis. New boundaries were drawn by the U.S. Census Bureau as part of the 2020 Census but were not available until after the release of CalEnviroScreen 4.0 in 2021. As a result of the updated census tract boundaries, Census Tract 110.00 was split into two tracts, 110.01 and 110.02.



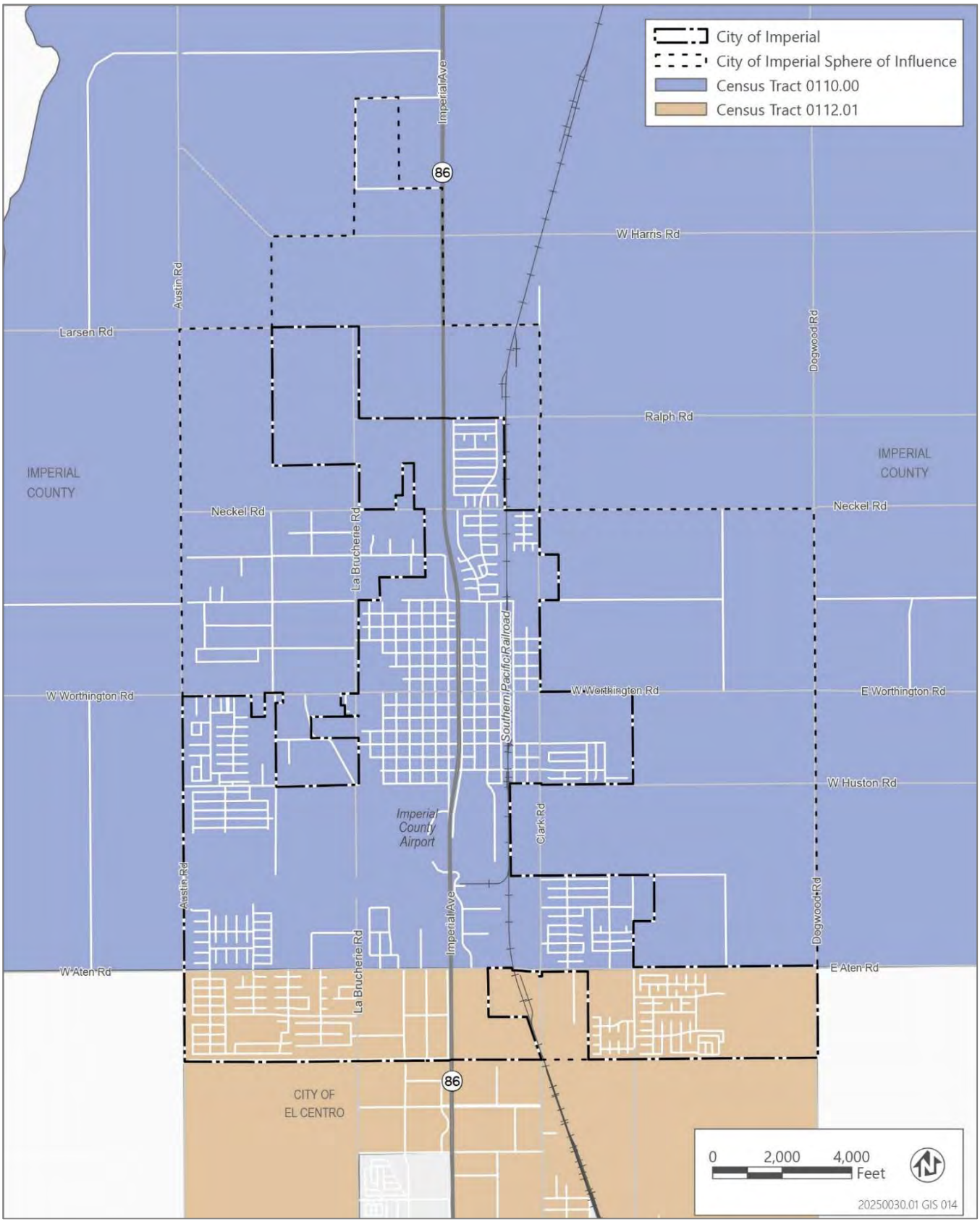
Source: Data provided by the City of Imperial; adapted by Ascent in 2025.

Figure 1 Imperial City Boundary and Sphere of Influence



Source: Adapted by Ascent in 2025.

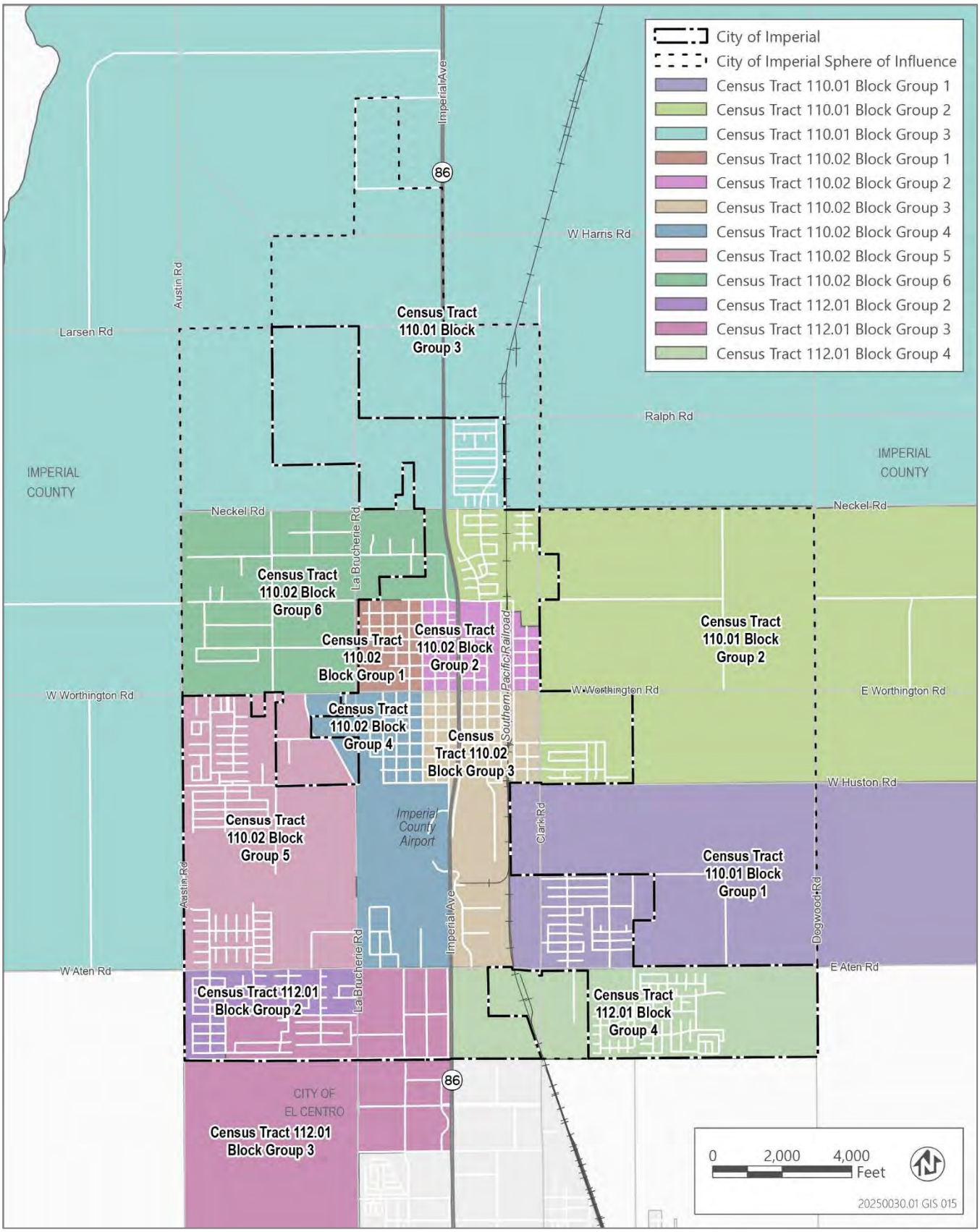
Figure 2 City of Imperial Neighborhoods



Notes: Census Tract 110.00 is a combination of 110.01 and 110.02.

Source: Adapted by Ascent in 2025.

Figure 3 City of Imperial Census Tracts



Source: Adapted by Ascent in 2025.

Figure 4 City of Imperial Census Block Groups

2 METHODOLOGY FOR IDENTIFYING ENVIRONMENTAL JUSTICE COMMUNITIES

State law requires the City to identify disadvantaged communities (referred to as "environmental justice communities" in this existing conditions report) within its planning area. For this analysis, two primary definitions of disadvantaged communities are applied:

- **Disadvantaged community:** Defined as an area identified by CalEPA pursuant to Section 39711 of the Health and Safety Code, or as an area that is a low-income area and is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation. [Government Code Section 65302(h)(4)(A)]
- **Disadvantaged unincorporated community:** Defined as a fringe, island, or legacy community in which the median household income is 80 percent or less than the statewide median household income. [Government Code Section 65302.10(a)]

Consistent with guidance from the California Office of Land Use and Climate Innovation (LUCI) (formerly the Governor's Office of Planning and Research), this report evaluates environmental justice conditions in the City by:

1. Using CalEnviroScreen 4.0 to identify census tracts or block groups in and around the City that meet CalEPA's thresholds for disadvantaged communities.
2. Reviewing income data to identify disadvantaged unincorporated communities consistent with Government Code Section 65302.10.
3. Incorporating and analyzing community-specific data and analyzing additional pollution indicators, health risk factors, and other environmental justice issues.

2.1 CALENVIROSCREEN 4.0

CalEnviroScreen 4.0 is a screening tool developed by CalEPA and OEHHA to identify disproportionately impacted by, or vulnerable to, environmental pollution and contaminants and is recommended by the State as an initial step in the methodology for identifying environmental justice communities. This tool utilizes a range of statewide indicators to assess pollution burden and population characteristics, categorizing communities based on their environmental and socioeconomic challenges. **Table 1** summarizes how CalEnviroScreen 4.0 indicators are grouped.

Table 1 CalEnviroScreen 4.0 Indicators

Pollution Burden	
Pollution Exposure	▶ Ozone, ▶ $PM_{2.5}$, ▶ Diesel particulate matter, ▶ Drinking water contaminants, ▶ Children's lead risk from housing, ▶ Pesticide use, ▶ Toxic release from facilities ▶ Traffic impacts
Environmental Effects	▶ Cleanup sites, ▶ Groundwater threats, ▶ Hazardous waste, ▶ Impaired waterbodies ▶ Solid waste sites

Pollution Burden	
Population Characteristics	
Sensitive Populations	▶ People with asthma, ▶ People with cardiovascular disease ▶ Low birth weight infants
Socioeconomic Factors	▶ Educational attainment, ▶ Housing burden, ▶ Linguistic isolation, ▶ Poverty ▶ Unemployment

Source: California Office of Environmental Health Hazard Assessment 2021.

CalEnviroScreen 4.0 assigns a percentile score for each indicator and combines them into an overall cumulative score for each census tract relative to all others in the state. Tracts with a cumulative score in the 75th percentile or higher are designated by CalEPA as disadvantaged communities.

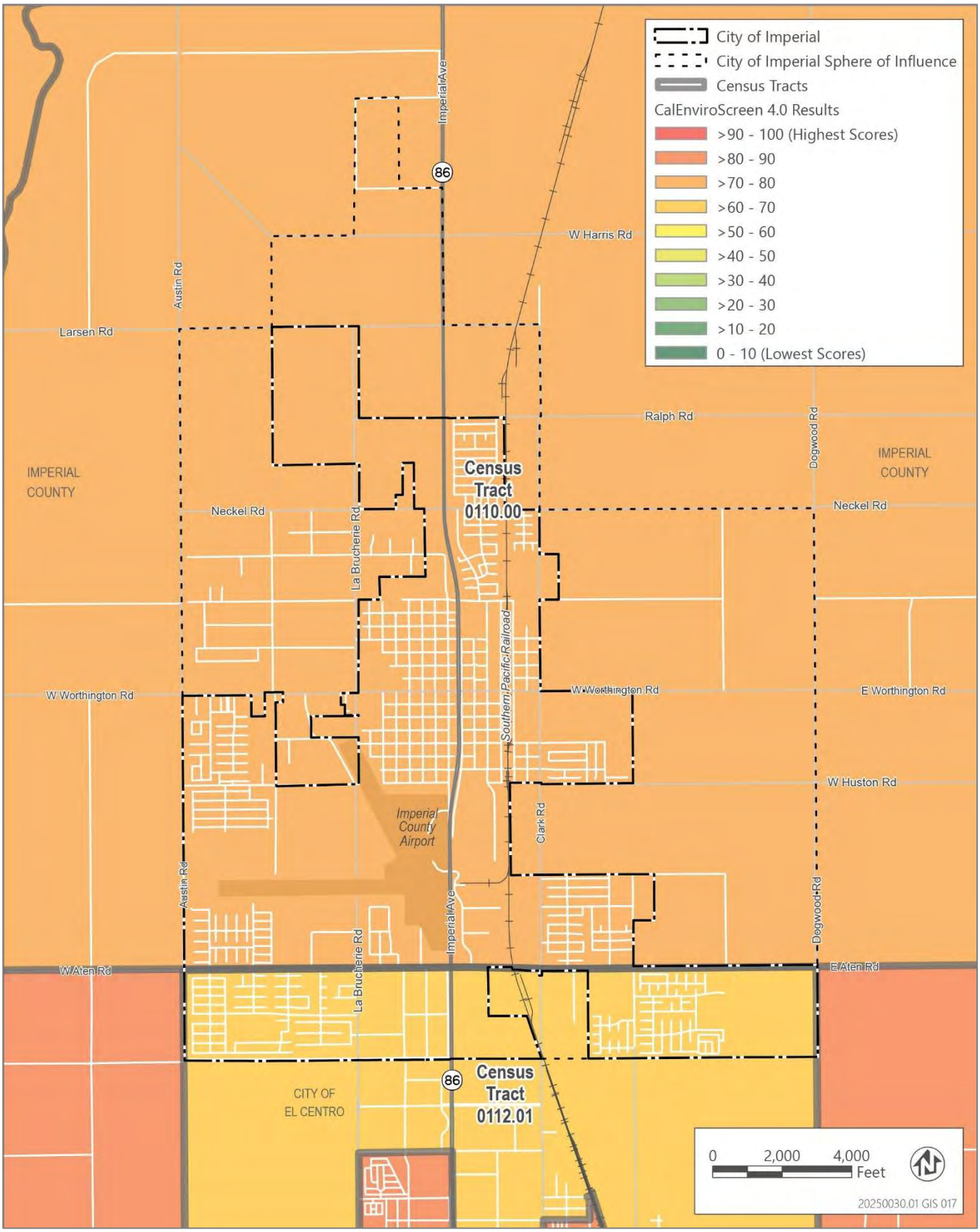
Both census tracts (110.00 and 112.01) within the City extend beyond the city limits, as described in Section 1.3, Geographic Context. As shown in **Table 2,** Census Tract 110.00 exceeds the 75th percentile threshold CalEnviroScreen 4.0 overall cumulative score, indicating a potential environmental justice community. This tract covers the northern portion of the city, reflecting the city's relationship with the surrounding area of Imperial County and Imperial Valley where regional air quality, transportation emissions, and agricultural pesticide contribute to environmental challenges. By contrast, Census Tract 112.01 scores below the 75th percentile but still demonstrates elevated levels of pollution burden and on individual socioeconomic indicators. **Figure 5** illustrates the location and relative CalEnviroScreen 4.0 scores of these tracts within the City boundary.

Table 2 CalEnviroScreen Scores of Census Tracts within the City of Imperial

Census Tract	CalEnviroScreen Percentile	Pollution Burden Percentile	Population Characteristics Percentile	Total Population *
110.00	76	83	62	14,848
112.01	62	60	56	6,221

* Total population by census tract was extracted from the 2019 American Community Survey.

Source: CalEnviroScreen 4.0, California Office of Environmental Health Hazard Assessment 2021.



Source: Data downloaded from the Office of Environmental Health Hazard Assessment in 2021; adapted by Ascent in 2025.

Figure 5 CalEnviroScreen 4.0 Results in the City of Imperial

2.1.1 Pollution Burden

Exposure to polluting substances in the air, water, and soil can have a significant impact on health. Heart disease, respiratory disease, cancer, birth defects, asthma, reproductive disorders, neurological disorders, and strokes have been directly associated with pollutant exposure. Pollution exposure can happen due to a variety of contact points including air, food, water, and/or soil pollutants found in daily life. Pollution in the City can come from a variety of different sources, similar to the rest of the Imperial Valley, including extreme heat, vehicular vapors and combustion, manufacturing, agriculture, runoff, and the Salton Sea evaporating.

CalEnviroScreen 4.0 provides an assessment of the pollution exposure indicators used to calculate pollution burden across each census tract in California. Each census tract is assigned a percentile score relative to all tracts statewide, with higher percentiles reflecting greater exposure to pollution. Pollution burden scores for the two census tracts covering the City are shown in Table 3.

Table 3 CalEnviroScreen Pollution Indicator Scores of Census Tracts within the City of Imperial

CalEnviroScreen Pollution Indicators	Census Tract 110.00	Census Tract 112.01
Clean Up Sites	93	86
Children's Lead Risk from Housing	23	14
Diesel Particulate Matter	14	40
Drinking Water Contaminants	64	25
Groundwater Threats	74	44
Hazardous Waste	79	82
Impaired Waters	100	83
Ozone	52	58
Pesticide Use	88	82
PM 2.5	37	31
Solid Waste	98	0
Toxic Releases	14	15
Traffic Impacts	16	53
Cumulative Pollution Burden	**83**	**60**

Source: CalEnviroScreen 4.0, California Office of Environmental Health Hazard Assessment, 2021.

Census Tract 110.00 has the highest overall pollution burden score (83rd percentile). The elevated pollution burden score in this area is reflective of the proximity to agricultural land and the Imperial County Airport. However, both tracts show high percentiles for several pollution indicators, underscoring that pollution exposure is a citywide concern. The most significant pollution burden indicators for the two census tracts in City include:

- **Impaired Water.** Chemicals or bacteria may contaminate local water bodies at levels above California health standards. Contaminants may have natural or human sources. Natural sources include rocks, soil, wildlife, and fires. Common human sources include factories, sewage, and runoff from farms. Common contaminants include nitrate from agriculture and arsenic from rocks and soil. In Imperial, the most significant source of impaired water is the New River, which is considered one of the most polluted rivers in the nation. The New River carries trash and waste from municipal, agricultural, and industrial sources as it flows from Mexico through the City of Calexico into the Salton Sea.
- **Solid Waste Generators and Facilities.** Solid waste facilities are places where municipal garbage and other types of waste are collected, processed, or stored. Common facilities are landfills, transfer stations, and composting facilities. These operations require permitting but can still expose people to hazards. Pollution occurs through the

production of toxic gases, chemicals in the ground, and increasing pests and traffic. In Imperial, nearby sources include the Imperial Landfill and SoCal Recycling, both of which contribute to the pollution burden in the area.

- **Cleanup Sites.** Cleanup sites are places that are contaminated with hazardous chemicals and require clean up by the property owners or government. Chemicals at cleanup sites can move through the air or groundwater and can last years in the community. People living near these sites have greater potential to be exposed to chemicals than people living further away.
- **Pesticide Use**. Pesticides are chemicals used in agriculture and municipal areas to control insects, weeds, and certain diseases from plants and animals. There are over 1000 pesticides approved for use in California. They are applied to in various ways, including through machines or air and by people on the ground.
- **Hazardous Waste Generators and Facilities.** Hazardous chemicals are often stored in containers on land or in underground storage tanks. Leaks from tanks can contaminate soil and groundwater. Common soil and groundwater pollutants include gasoline and diesel fuels at gas stations, as well as solvents, heavy metals, and pesticides.

2.1.2 Population Characteristics

Population characteristics can significantly influence a community's vulnerability to environmental hazards. Factors such as age, health conditions, socioeconomic status, and language barriers can shape how environmental exposures impact health outcomes. Certain population groups face heightened risks from environmental stressors including children, older adults, individuals with chronic illnesses, low-income households, and linguistically isolated individuals. This can be due to a mix of reduced access to healthcare, limited resources, or physiological sensitivity.

CalEnviroScreen 4.0 incorporates a set of population indicators to help measure environmental vulnerability of each census tract in California. These indicators include sensitive population measures (e.g., asthma rates, cardiovascular disease, low birth weight) and socioeconomic factors (e.g., poverty, unemployment, education level, and linguistic isolation). Each census tract in California is assigned a score for these indicators, which is then expressed as a percentile ranking compared to all other tracts in the state A high percentile indicates that a census tract has a higher population burden score compared to other communities around the state. CalEnviroScreen scores for pollution exposure indicators for census tracts within the City are provided in **Table 4.**

Table 4 CalEnviroScreen Population Burden Scores of Census Tracts within the City of Imperial

CalEnviroScreen Pollution Indicators	Census Tract 110.00	Census Tract 112.01
Asthma	89	86
Cardiovascular Disease	82	75
Education	61	60
Housing Burden	14	2
Linguistic Isolation	45	84
Low Birth Weight	25	8
Poverty	39	39
Unemployment	94	77
Cumulative Population Burden	**62**	**68**

Source: CalEnviroScreen 4.0, California Office of Environmental Health Hazard Assessment 2021.

Census Tract 112.01 has the highest overall population characteristics burden score (68th percentile). The elevated score in this area is based on health factors and demographic inequities in Imperial County. However, both tracts demonstrate elevated scores in multiple indicators, suggesting broad vulnerability across the City. The most significant pollution burden indicators for the two census tracts in the City include:

- **Asthma.** Asthma is a disease that affects the lungs and makes it hard to breathe. Symptoms include breathlessness, wheezing, coughing, and chest tightness. The causes of asthma are unknown but both genetic and environmental factors can lead to the disease.
- **Cardiovascular Disease.** Cardiovascular disease refers to conditions that involve blocked or narrowed blood vessels of the heart. A heart attack is the most common result of cardiovascular disease. There are many risk factors for developing cardiovascular disease including diet, lack of exercise, smoking, and exposure to air pollution. Air pollution can increase the risk of death post-heart attack, especially in the elderly and those with pre-existing conditions.
- **Unemployment.** Unemployment refers to the proportion of the labor force (age 16 and above) that is unemployed. This does not include students, active-duty military members, and retirees. High unemployment correlates with poverty.
- **Linguistic Isolation.** Linguistic isolation is a term that describes limited English-speaking households. These households often face challenges in accessing social services, medical care, and crucial emergency information. They face barriers connecting with government at the local, state, and federal levels and often lack representation in decision-making.

2.2 INCOME ANALYSIS

Income levels provide important context for identifying environmental justice communities and assessing socioeconomic vulnerability. To identify low-income communities pursuant to Government Code 65302.10(a), census tracts where household incomes fall at or below 80 percent of the Imperial County 2023 median income were identified.[1] **Table 5** shows median household incomes for the three census tracts within the City compared to countywide area median income (AMI). As shown in **Table 5,** all census tracts within the City report median household incomes above the countywide AMI.

Table 5 Median Income by Census Tracts in City of Imperial (2023)

Census Tract	All Households
Census Tract 110.01	$82,884
Census Tract 110.02	$76,815
Census Tract 112.01	$84,394

Source: American Community Survey 2023 Five-Year Estimates, Table S1901; HCD 2023 Income Limits.

2.3 CTCAC/HCD OPPORTUNITY AREAS

The California Tax Credit Allocation Committee (CTCAC) and California Department of Housing and Community Development (HCD) have developed annual maps since 2017 which identify access to resources including: high-paying job opportunities, school proficiency, pollution, and other economic, social, and environmental indicators. These maps are called opportunity maps and are available to all jurisdictions in California to assess access to opportunities within their community. The opportunity mapping process includes three domains: economic, environmental, and education. Each domain uses a number of indicators to determine its individual score. **Table 6** shows the full list of indicators that are the averaged into a composite score.

[1] In 2023, the area median income (AMI) for Imperial County was $83,800. Low-income households are those whose incomes are equal to or less than $65,950.

Table 6 Domains and List of Indicators for Opportunity Map

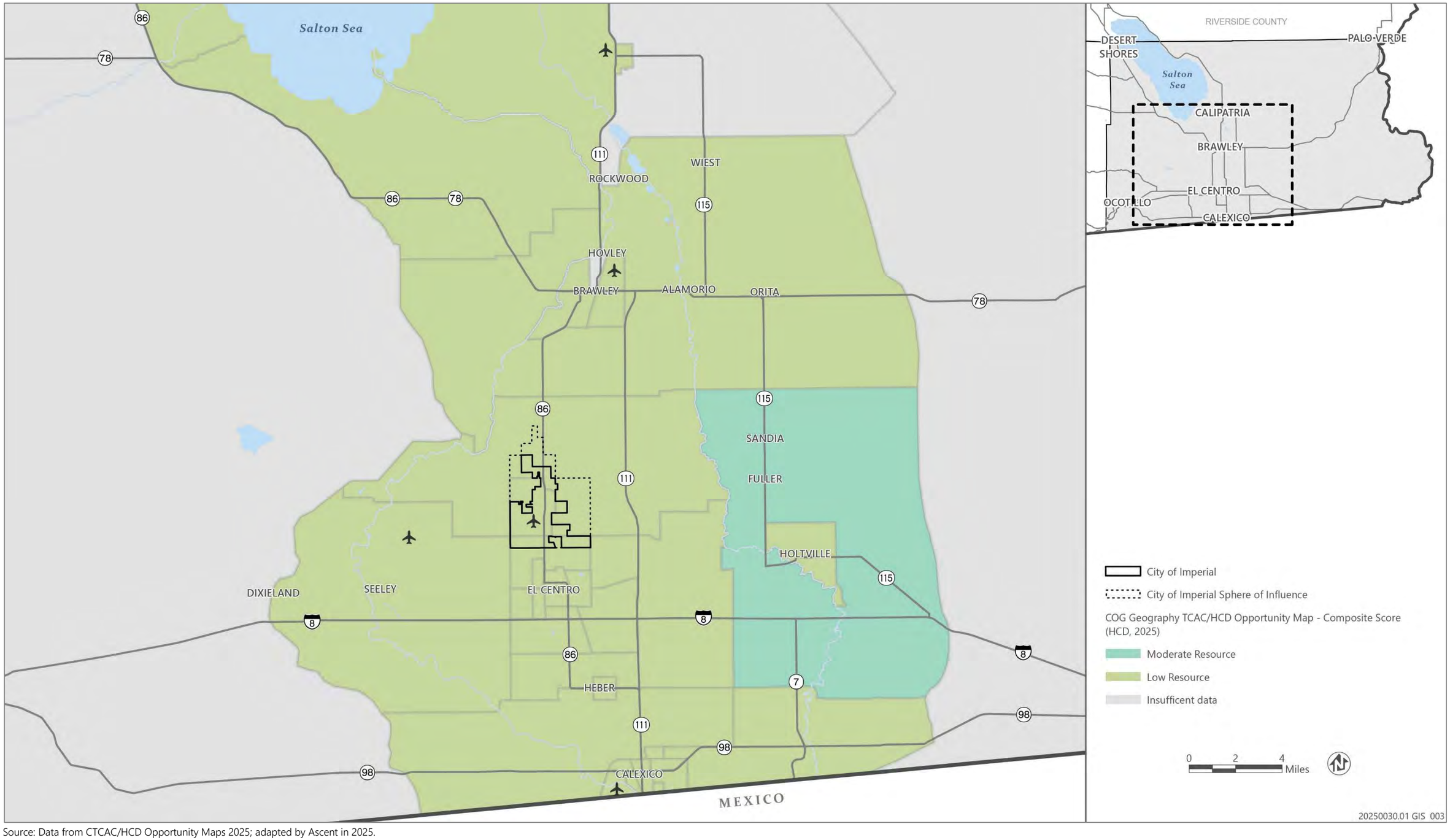
Domain	Indicators
Economic	▶ Poverty ▶ Adult education ▶ Employment ▶ Job proximity ▶ Median home value
Education	▶ Math proficiency ▶ Reading proficiency ▶ High School graduation rates ▶ Student poverty rates
Environmental Burden	▶ CalEnviroScreen 4.0 pollution indicators and processed values
Poverty and Racial Segregation	▶ Poverty: tracts with at least 30 percent of population under federal poverty line ▶ Racial Segregation: Overrepresentation of people of color relative to the county (i.e., Tracts with a racial location quotient higher than 1.25 for Black or African American, Hispanic, Asian, or all people of color in comparison to the county)

Source: CA Fair Housing Task Force, Methodology for CTCAC/HCD Opportunity Maps, December 2021.

Based on these indicators, census tracts are classified into five categories:

- Highest Resource. Areas designated as "highest resource" are the top 20 percent highest-scoring census tracts in the region. It is expected that residents in these census tracts have access to the best outcomes in terms of economic opportunities, health, and education attainment.
- High Resource. Census tracts designated "high resource" score in the 21st to 40th percentile compared to the region. Residents of these census tracts have access to highly positive outcomes for health, economic, and education attainment.
- Moderate Resource. "Moderate resource" areas are in the top 30 percent of the remaining census tracts in the region and have experienced increases in key indicators of opportunity. Residents in these census tracts have access to either somewhat positive outcomes in terms of health, economic attainment, and education; or positive outcomes in a certain area but not all areas
- Low Resource. Low-resource areas are those that score in the bottom 30 percent of census tracts and indicate a lack of access to positive outcomes and poor access to opportunities.
- High Segregation and Poverty. Areas identified as having "high segregation and poverty"; are census tracts that have an overrepresentation of people of color compared to the county as a whole, and at least 30 percent of the population in these areas is below the federal poverty line

As shown in Figure 6, the City is primarily categorized as a low resource area based on the 2025 CTCAC Opportunity Areas for the City and surrounding region. Overall, in comparison to other areas of California, the Imperial Valley has low to moderate access to opportunity. Despite being one of the more urbanized communities in Imperial County, the City still faces economic challenges, uneven educational outcomes, and persistent environmental stressors that lower overall opportunity scores.



Source: Data from CTCAC/HCD Opportunity Maps 2025; adapted by Ascent in 2025.

Figure 6 CTCAC Opportunity Areas for Imperial Valley – Composite (2025)

2.3.1 Economic

The City and the broader Imperial Valley region face significant economic challenges that contribute to limited access to opportunity. The City is more urbanized compared to the rest of Imperial County but economic indicators for the City are below state and national averages. **Figure 7** shows the CTCAC economic opportunity scores for the City and surrounding areas.

As of July 2025, Imperial County has an unemployment rate of 20.2 percent while the City faces slightly lower unemployment at 14.1 percent, with both being significantly higher than the state average of 5.5 percent (CEDD 2025a, CEDD 2025b). This persistent unemployment is attributed to factors relevant to the City and surrounding area including a high proportion of seasonal agricultural workers, limited diversification in the local economy, and a lower share of workers with college degrees. See Section 2.1.2, Population Characteristics for further discussion.

The poverty rate in the City is 12.4 percent. Amongst age groups, seniors aged 65 and older face the highest poverty rate of 22.0 percent. Seniors often rely on fixed income and family support while facing extremely limited economic mobility and financial flexibility and this is exacerbated in the City with a high poverty rate. Native Americans face a 23.5 percent poverty rate, likely due to historical systemic factors. Non-high school graduates have a 25.4 percent poverty rate and face limited economic mobility. These elevated rates underscore financial challenges that specific communities face in the City, highlighting potential environmental justice concerns. Among the population 25 years and older, 82.9 percent were high school graduates or higher and 20.3 percent of adults held a bachelor's degree or higher. This gap in higher education contributes to limited access to higher-paying jobs and career advancement opportunities, ultimately reinforcing cycles of economic disadvantage (Public Policy Institute of California 2020).

The median home value in the City is $368,304 which is significantly lower than the median home value in California of $775,058 (Zillow 2025).

2.3.2 Education

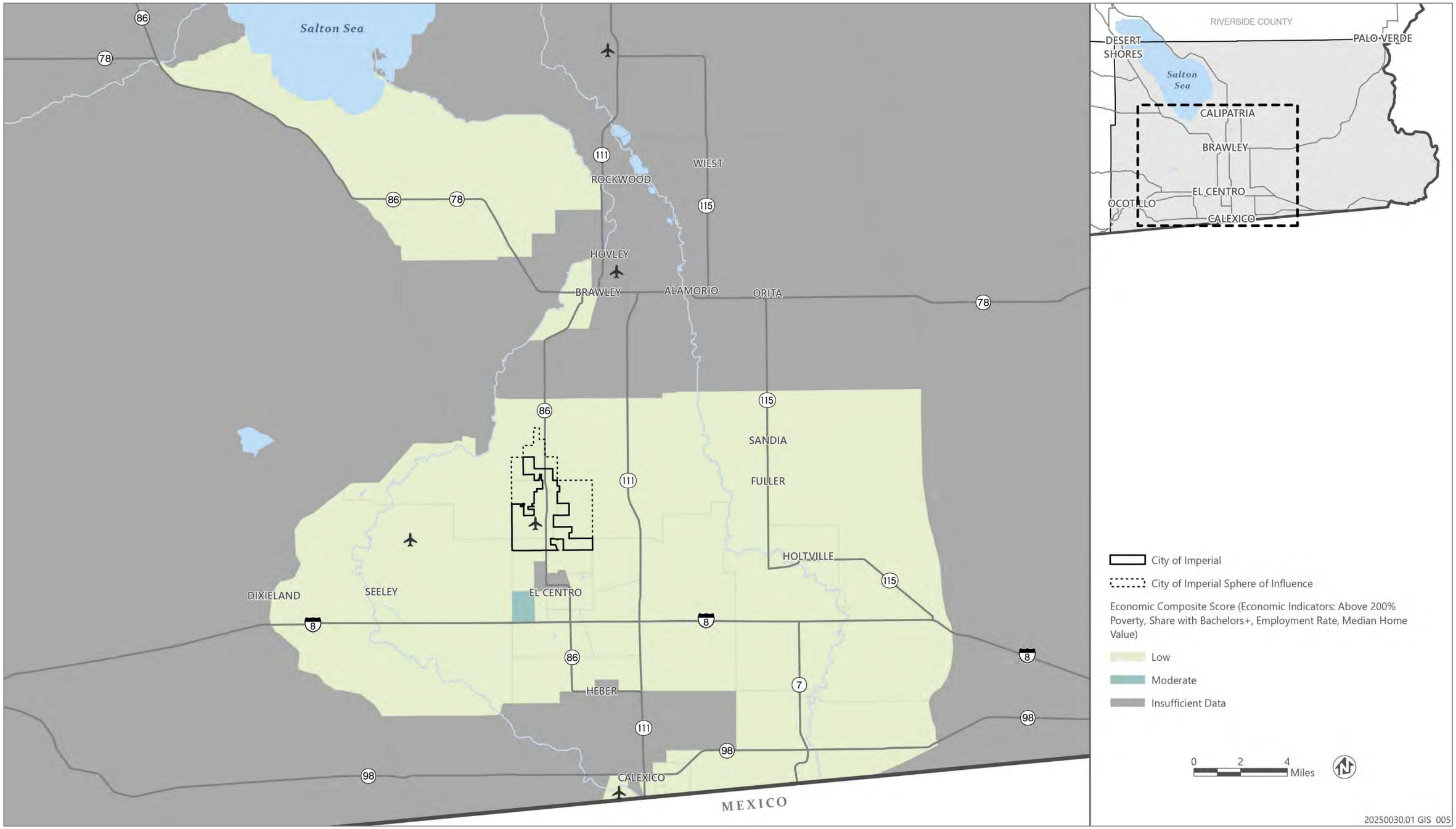
A majority of the City exhibits high educational opportunity with the southern edge having low educational opportunity. The greater region is similarly split between high and low educational opportunity. **Figure 8** shows the CTCAC educational opportunity scores for the City and surrounding areas.

The following paragraph summarizes data from the California Department of Education for Smarter Balanced Summative Assessments from 2023-2024 (CDOE 2024a). At Imperial Unified School District, 50.83 percent of students meet or exceed standards for ELA and 35.74 percent students meet or exceed standards for math. These are higher than the State achievement level of 47.04 percent of students for ELA and 35.54 percent of students for Math meeting or exceeding standards. The City's students are performing higher than the state level for fundamental K-12 skills which reflects in a higher educational opportunity score.

The student poverty rate is 50.2 percent (IUSD 2025). This is a significant proportion of the student population and represents some gaps in overall educational opportunities in the City. Still, the City has high educational opportunity levels, likely due to well performing students in recent years.

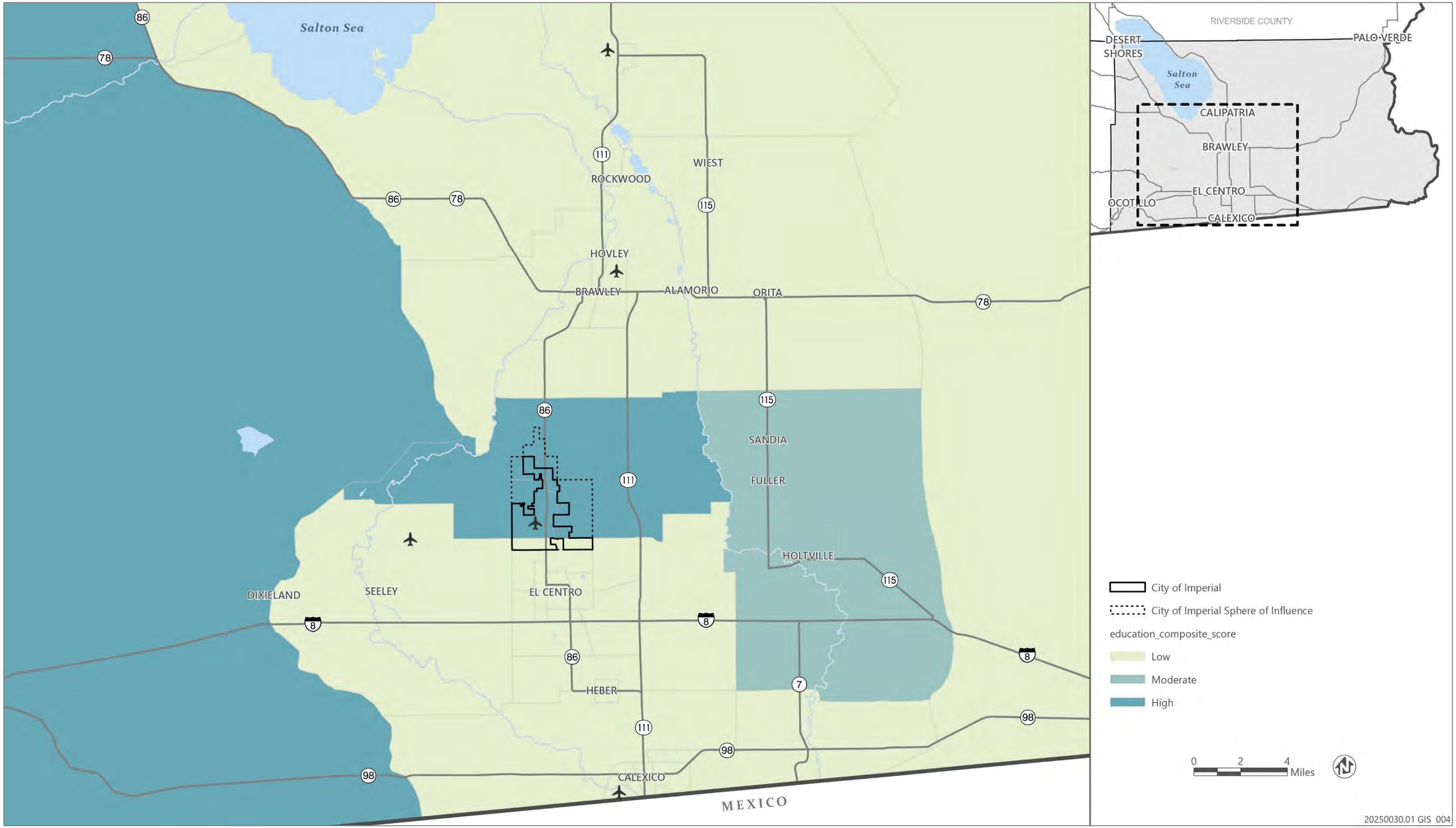
The following paragraph summarizes data from the California Department of Education for high school graduation rates in the 2023-2024 school year (CDOE). The Imperial Unified School District maintains a relatively high graduation rate. Imperial High School has a 98.7 percent graduation rate that has increased from previous years (CDOE 2024b). This is higher than the statewide high school graduation rate in 4 years of 86.4 percent (CDOE 2024c). This demonstrates a strong schooling system with opportunities for economic mobility in the City.

This page is intentionally left blank.



Source:. Data downloaded from the HCD AFFH Data Tool in 2025; adapted by Ascent in 2025.

Figure 7 CTCAC Opportunity Areas for Imperial Valley – Economic (2025)



Source: Data downloaded from the HCD AFFH Data Tool in 2025; adapted by Ascent in 2025.

Figure 8 CTCAC Opportunity Areas for Imperial Valley – Education (2025)

2.3.3 Environmental Burden

The City faces significant environmental burden in most of the city except for the southern edge. The CTCAC environmental burden score relies heavily on CalEnviroScreen indicators. **Figure 9** shows the CTCAC environmental burden scores for the City and surrounding areas.

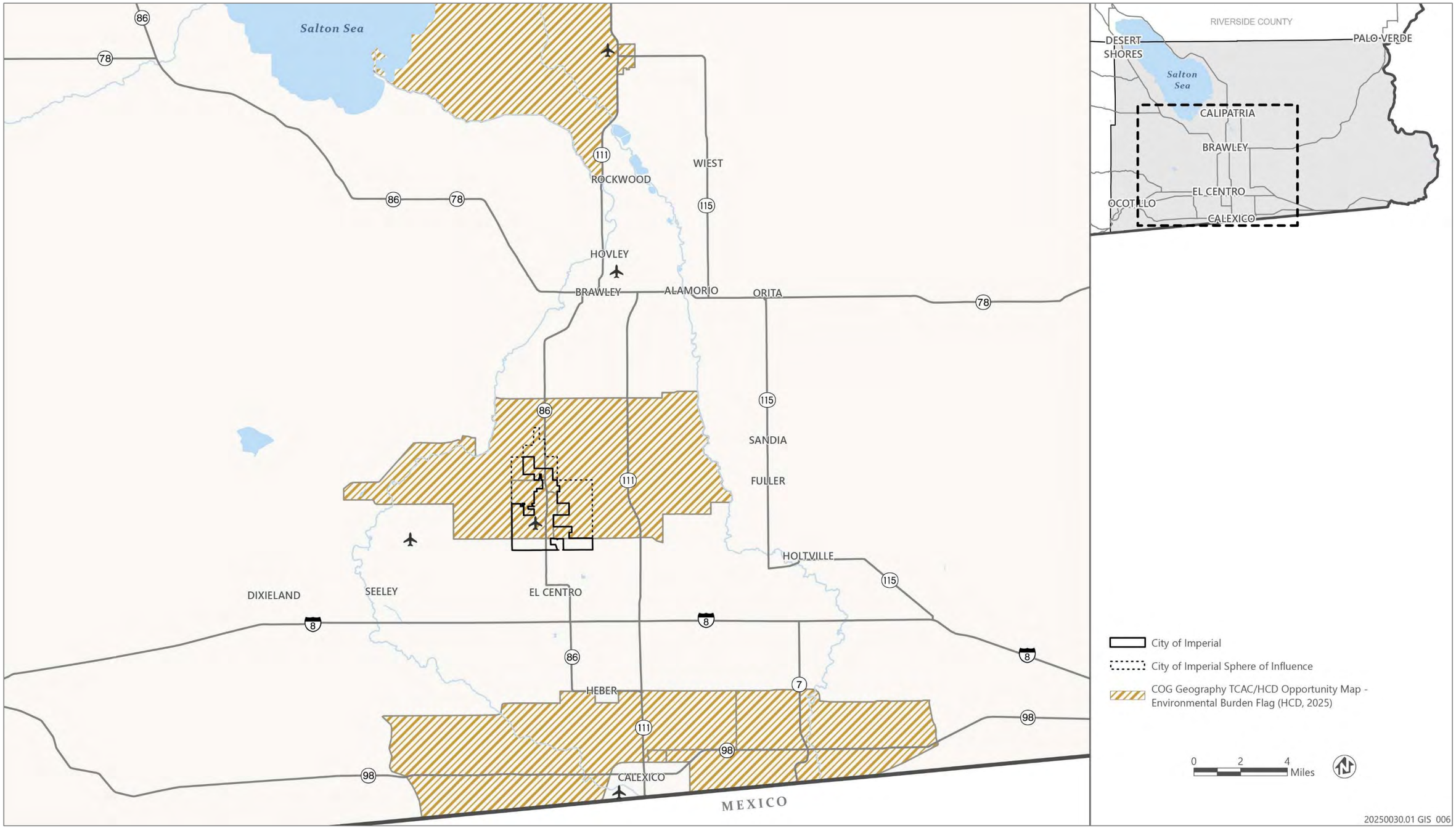
As discussed in Section 2.1.1, Pollution Burden, the most prevalent indicators in both census tracts in the City are impaired water, cleanup sites, pesticide use, hazardous waste generators and facilities, and solid waste generators and facilities. Notable sites that increase the environmental burden of the City include Stoker Chemicals, Imperial County Airport, and the Salton Sea. See Section 4, Pollution Exposure and Health Risks, for further discussion. With pollution burden scores among the highest in California, residents face elevated health risks and quality of life concerns. These stressors intersect with economic and social vulnerabilities, reinforcing environmental justice concerns.

2.4 DATA GAPS AND MARGINALIZED POPULATIONS

CalEnviroScreen 4.0 and CTCAC provide valuable frameworks for identifying environmental justice communities. However, these tools are based primarily on census and other state-collected datasets, which have some limitations. Most notably, there are certain populations whom are often undercounted or not well represented in available data, which affects how comprehensively the conditions and vulnerabilities in the city are captured. These underrepresented groups often overlap and intersect and their vulnerabilities can often be worse than the average population in an area. Populations likely to be underrepresented in data include:

- **Migrants and Seasonal Farmworkers.** The portion of the workforce that consists of migrants and seasonal farm workers are often not fully captured in population estimates due to temporary or informal housing arrangements, fear of reporting status, and barriers to census participation. This population is often vulnerable due to heightened exposure to pollutants and inadequate accessibility to health care and civic connections.
- **Unhoused populations.** Individuals experiencing homelessness can be undercounted in data, and often face disproportionate exposure to environmental hazards and extremely limited access to relief.
- **Undocumented Residents**. Fear of government data collection reduces census participation, often resulting in residents that are unaccounted for in census data. Undocumented individuals often face overlapping risks, including insecure housing, low wages, limited legal protection, and heighted exposure to pollutants in workplaces and neighborhoods.

This page is intentionally left blank.



Source: Data downloaded from the HCD AFFH Data Tool in 2025; adapted by Ascent in 2025.

Figure 9 CTCAC Opportunity Areas for Imperial Valley – Environmental Burden (2025)

3 DEMOGRAPHICS AND SOCIOECONOMIC CONDITIONS

This section examines key demographic trends in the City relative to Imperial County and the State as a whole. Demographic and socioeconomic conditions shape residents' exposure to environmental hazards, access to resources, and capacity to adapt to change. Examining these indicators helps identify communities that may be disproportionately burdened and ensures that environmental justice strategies address both environmental and social inequities.

The information presented provides a snapshot of the current socioeconomic composition of the City in the topics of population characteristics, race and ethnicity, language access, educational attainment, economic status, and employment characteristics. Data is pulled from the most recently available American Community Survey 5-Year Estimates from 2019-2023, unless stated otherwise.

Key takeaways from this section include:

- The City's population has increased significantly with approximately 200 percent growth between 2000 and 2025.
- Between 2013 and 2023, single-parent households grew far faster than overall households, while married-couple households decreased.
- Households in the City tend to be younger, more family-structured, and larger compared to the County and State.
- Hispanic or Latino populations makes up a large majority of the City, especially Mexican.
- The City's population tends to have higher income and are more educated compared to the rest of the County.
- The 65 and older age range has a higher proportion among those with a disability and a higher percentage of people below the poverty level.
- The City has a lower unemployment rate than the County, but higher than the State, with industries more focused on service rather than agriculture and production, which is more common in the rest of the County.
- Limited English-speaking households are comprised of Spanish and Korean speakers.
- Nearly all of the County's small Arabic-speaking population lives in the City.

3.1 POPULATION AND HOUSEHOLD CHARACTERISTICS

The City is the fourth largest city in Imperial County by population, shown in **Table 7**. As of January 2025, the City had an estimated population of 22,866, which accounts for 12 percent of the total County population.

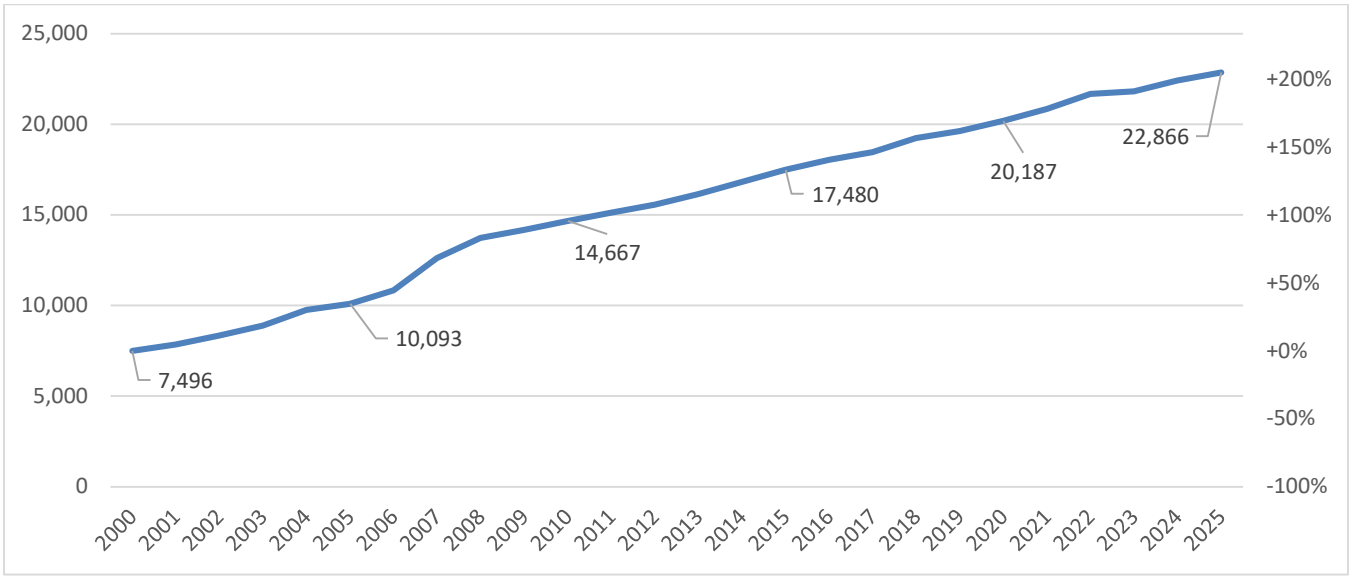
Table 7 Total Population (2025)

Jurisdiction	Estimate	Share of County
City of El Centro	46,007	25%
City of Calexico	40,073	21%
City of Brawley	28,952	16%
City of Imperial	**22,866**	**12%**
City of Calipatria	6,061	3%
City of Holtville	5,685	3%
City of Westmorland	2,084	1%
Unincorporated	34,771	19%
Imperial County Total	**186,499**	**100%**
State	**39,529,101**	**N/A**

Notes: Estimates as of January 1st, 2025.

Source: California Department of Finance 2025.

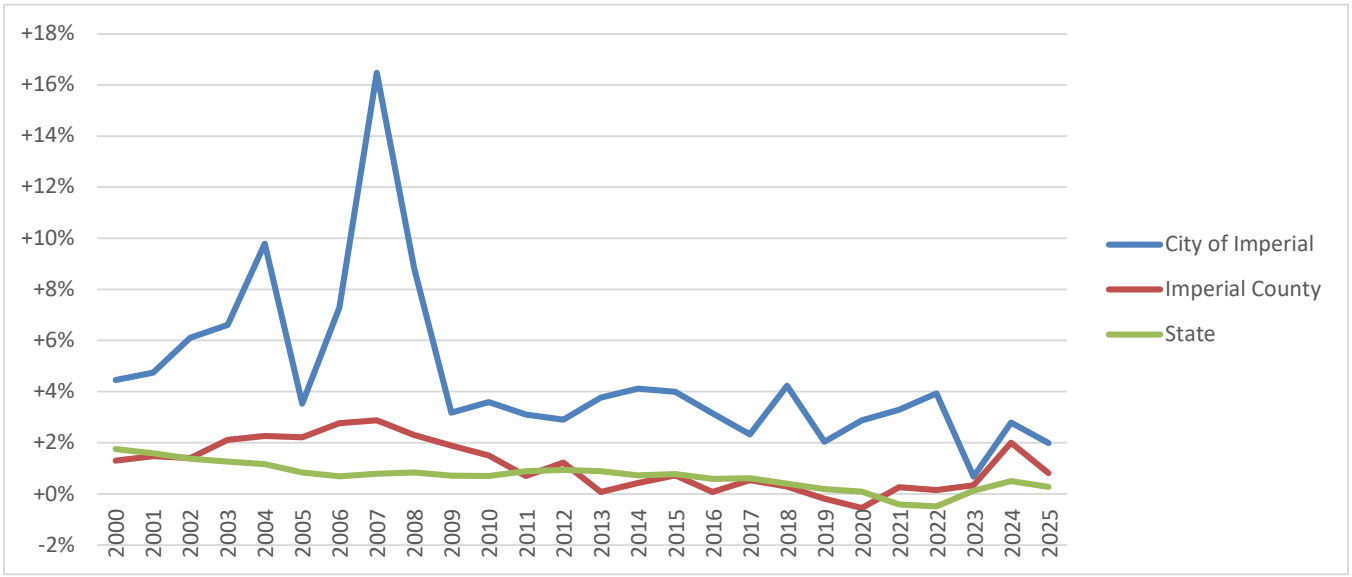
The City's population increased aggressively from 7,496 in 2000 to 22,866 in 2025, experiencing 200 percent growth with no years of decline (California Department of Finance 2025). This trend is illustrated in **Figure 10**. From 2000 to 2020, the City had the highest growth in Imperial County (City of Imperial 2021). **Figure 11** depicts population growth in the City compared to Imperial County as a whole and the State. The population of the City increased the most in 2007, growing over 16 percent from the previous year. Other notable spikes in population growth occurred in 2004 (approximately ten percent increase) and in 2013-2015, 2018, and 2022 (approximately four percent growth each year). These trends generally coincide with periods of population growth for the County as a whole



Notes: Estimates dated January 1st of every year.

Source: California Department of Finance 2025.

Figure 10 City of Imperial Population (2000-2025)



Notes: Estimates dated January 1st of every year.

Source: California Department of Finance 2025.

Figure 11 Population Growth Year-over-Year (2000-2025)

3.1.1 Age of the Population

Different age groups experience environmental risks in distinct ways. Children and older adults are more physically vulnerable to hazards, while working-age adults may be affected through economic impacts such as job loss, housing costs, or caregiving responsibilities. Looking at the full age distribution helps identify how environmental burdens intersect with life stage and community resilience. As illustrated in **Table 8**, age distribution in the City generally skews younger compared to the State, with age groups 19 years and under accounting for over one-third of the entire City population. People nine and under account for 18 percent of the City population, which is share that is three percentage points higher than the County (15 percent) and six percentage points higher than the State (12 percent). The 10-19 age range accounts for 20 percent of the City population, which is a higher share than the County (17 percent) and State (13 percent). In the 20-34 age group, the City has a lower share of 15 percent compared to the County (21 percent) and State (21 percent). In the 35-44 age group, the City has a higher share of 15 percent compared to the County (13 percent) and State (14 percent). In the 45-54 age range, the City has a share of 12 percent, which is higher than the County (10 percent) but comparable to the State (12 percent). People aged 65 and over account for the smallest percentage of the City population at ten percent, which is a smaller share compared to the County (13 percent) and State (15 percent).

Table 8 Age (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
9 and under	3,787	18%	26,564	15%	4,567,825	12%
10-19	4,165	20%	29,763	17%	5,186,934	13%
20-34	3,193	15%	38,519	21%	8,381,695	21%
35-44	3,158	15%	22,507	13%	5,398,975	14%
45-54	2,107	10%	19,571	11%	4,939,309	13%
55-64	2,438	12%	18,276	10%	4,773,561	12%
65 and over	2,095	10%	24,119	13%	5,994,486	15%
Total	20,943	100%	179,319	100%	39,242,785	100%

Source: American Community Survey 2023 Five-Year Estimates, Table DP05.

3.1.2 Household Characteristics

Household type by couple status can be an indicator of social vulnerability. Single-parent households tend to disproportionately have lower incomes, less housing stability, and fewer resources to respond to environmental hazards. **Table 9** shows how married-couple households account for a majority of all households in the City (53 percent) at a share four percentage points higher than the County (49 percent) and State (49 percent). Female householders with no spouse/partner present make up the second largest household type in the City at 27 percent, which is slightly more than the State (26 percent) but less than the County (29 percent). Male householders with no spouse/partner present account for the next largest household type in the City at 16 percent, which is two percentage points lower than the County and State, at 18 percent each. Cohabiting couple households account for five percent of all households in the City, which is one percentage point higher than the County (four percent) and three percentage points lower than the State (eight percent).

Table 9 Household Types by Couple Status (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Married-couple household	3,190	53%	23,973	49%	6,555,957	49%
Cohabiting couple household	282	5%	2,137	4%	1,006,617	8%
Male householder, no spouse/partner present	943	16%	8,633	18%	2,371,234	18%
Female householder, no spouse/partner present	1,605	27%	14,101	29%	3,501,039	26%
Total	6,020	100%	48,844	100%	13,434,847	100%

Source: American Community Survey 2023 Five-Year Estimates, Table DP02.

Between 2013 and 2023, the City experienced a significant increase in single-parent households. Table 10 compares the share of households types in 2013 and 2023. In 2013, married-couple households accounted for 60 percent of total households, male householders without a spouse/partner present accounted for three percent, and female householders without a spouse/partner present accounted for 14 percent (ACS 2013). By 2023, the share of married-couple households dropped by 7 percentage points to 53 percent. The rate of growth in married-couple households between 2013 and 2023 was 16 percent, which is nearly half the rate of total household growth in the City (32 percent). In the same period, male householders with no spouse/partner present increased by 13 percentage points and female householders with no spouse/partner present nearly doubled to 27 percent. The rate of growth in these single-parent household types far outpace the overall growth of households in the City. Male householders with no spouse/partner present grew 555 percent and female householders with no spouse/partner present grew 143 percent, compared to the overall 32 percent growth in total households in the City.

Table 10 Change in Household Types in the City of Imperial (2013-2023)

Group	2013 Estimate	2013 % Total	2023 Estimate	2023 %	2013-2023 Estimate	2013-2023 % Change
Married-couple household	2,747	60%	3,190	53%	443	+16%
Male householder, no spouse/partner present	144	3%	943	16%	799	+555%
Female householder, no spouse/partner present	660	14%	1,605	27%	945	+143%
Other	1,005	22%	282	5%	-723	-72%
Total	4,556	100%	6,020	100%	1,464	+32%

Notes: Between 2013 and 2023, there were changes to how each category was defined.

Source: American Community Survey 2013 and 2023 Five-Year Estimates, Table DP02.

Children under 18 and adults 65 and over are of special interest in environmental justice analysis because they can be more vulnerable to environmental hazards. Environmental stressors can interfere with children's physical and cognitive development, while older adults are more likely to have chronic health conditions or limited mobility that may be exacerbated or compounded. Table 11 shows the share of household types by age categories, focusing on households with persons under 18 years old and households with people 65 years and over. Households in the City tend to be more family structured compared to the County or State. Within the City, households with one or more people under 18 years old make up the largest household type at 45 percent, which is four percentage points higher than the County (41 percent) and 12 percentage points higher than the State (33 percent). Households without people under 18 years or people 65 years and older make up the next largest household type at 32 percent of the City's households, which is higher than the County (24 percent) and less than the State (36 percent). Households with older adults are less common in the City compared to households in the County and State. Households with one or more people 65 years and over account for 23 percent of all households in the City, which is a share 12 percentage points lower than the County (35 percent) and nine percentage points lower than the State (31 percent).

Table 11 Household Types by Age (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Households with one or more people under 18 years	3,190	45%	23,973	41%	6,555,957	33%
Households with one or more people 65 years and over	282	23%	2,137	35%	1,006,617	31%
Households without people under 18 years or people 65 years and over	1,948	32%	12,008	24%	4,802,959	36%
Total	6,020	100%	48,844	100%	13,434,847	100%

Source: American Community Survey 2023 Five-Year Estimates, Table DP02.

Larger households often face greater housing cost pressures, overcrowding, and additional challenges adapting to hazards. Household and family sizes tend to be larger in the City than in the State but comparable to the County, as shown in **Table 12**. The City has an average household size of 3.47, which is larger than the State (2.86) but smaller than the County (3.51). The average family size in the City is 4.15, which is comparable to the County (4.15) and larger than the State (3.43).

Table 12 Average Household Size (2023)

Group	City of Imperial Estimate	Imperial County Estimate	State Estimate
Average household size	3.47	3.51	2.86
Average family size	4.15	4.15	3.43

Source: American Community Survey 2023 Five-Year Estimates, Table DP02.

3.2 DISABILITY STATUS

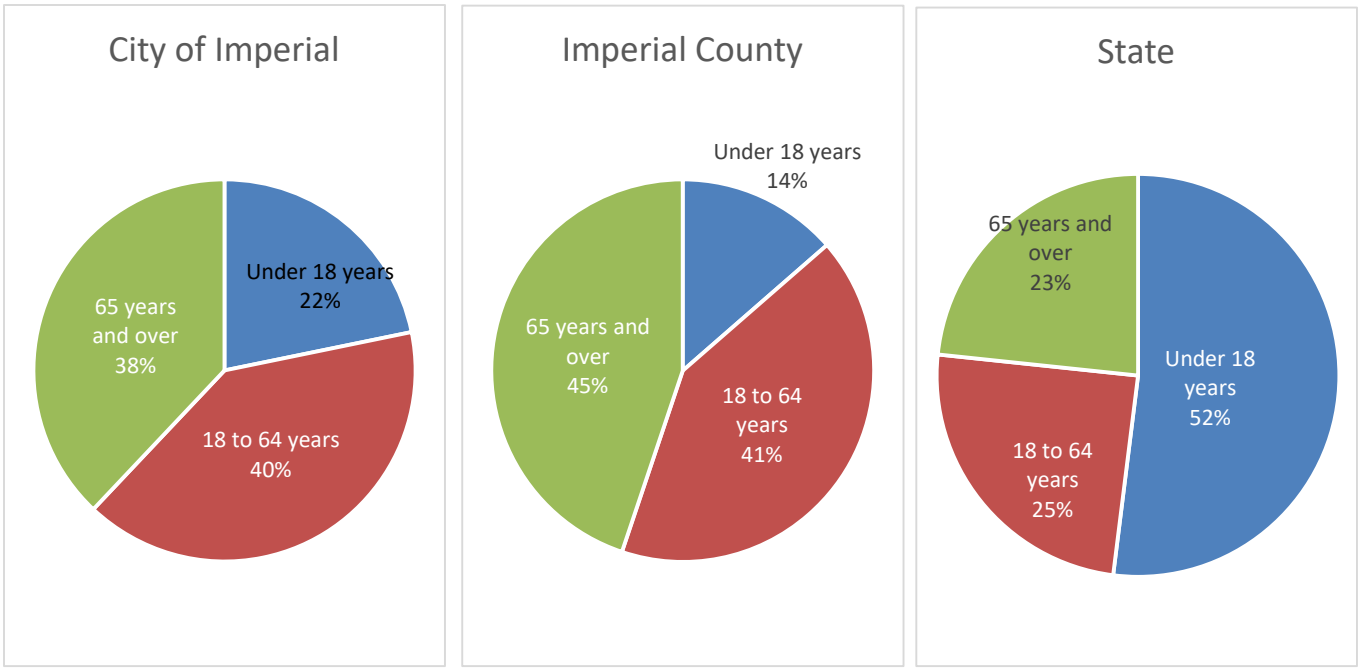
Individuals with disabilities may have limited mobility, health conditions, or reliance on medical equipment that increase risk during emergencies. As shown in **Table 13**, the population of people with a disability account for 14 percent of the total civilian noninstitutionalized population in the City. The City's proportion of people with disabilities is smaller compared to the County (15 percent), but larger compared to the State (11 percent). Certain ages among people with disabilities can present compounded risks. For example, older adults and children with disabilities may face greater challenges due to increased sensitivity to pollutants or disruptions in care. Among the population of people with a disability, **Figure 12** illustrates how 22 percent are under 18 years of age, 38 percent are aged 65 years and over, and 40 percent are aged 18-64. The share of people under 18 years is more than half of the State (52 percent) but higher than the County (14 percent). The share of people 65 years and over is higher than the State (25 percent) and slightly lower than the County (41 percent).

Table 13 Disability Status (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
With a disability	2,938	14%	25,466	15%	4,364,431	11%
Without a disability	17,960	86%	146,364	85%	34,397,307	89%
Total	20,898	100%	171,830	100%	38,761,738	100%

Notes: Total represents civilian noninstitutionalized population.

Source: American Community Survey Table DP02 2023.



Notes: Total represents civilian noninstitutionalized population.

Source: American Community Survey 2023 Five-Year Estimates, Table DP02; adapted by Ascent in 2025.

Figure 12 Age Groups of Persons with Disabilities (2023)

3.3 RACE AND ETHNICITY

Nationwide, communities of color, defined as racial and ethnic minority groups including Hispanic or Latino, Black or African American, Asian, Native American, and other non-White populations, have historically faced disproportionate exposure to environmental hazards due to discriminatory policies and land use practices. Communities of color are also more likely to experience cumulative burdens when environmental risks overlap with economic and social inequities. The following section presents the current racial demographic of the City compared with the County and State. Race data for the City is collected from the American Community Survey, which allows individuals to identify with more than one race. Because of this, the combined percentages of the following groups discussed may exceed the total population.

As shown in **Table 14**, a vast majority of the City population identifies as Hispanic or Latino at 84 percent. This share is similar to the County share of 86 percent and over double the State share of 40 percent. The share of the population not Hispanic or Latino-identifying account for 16 percent of the City population, which is slightly higher than the County (14 percent) and significantly lower than the State (60 percent).

A majority of the City population identifies as White at 66 percent, which is similar to the County (65 percent) but higher than the State (57 percent) as shown in **Table 14**. Black or African American alone account for five percent of the total not Hispanic or Latino population, which is a lower share than the County (15 percent) and State (nine percent). While American Indian and Alaska Native alone make up five percent of the County's not Hispanic or Latino population, this group is less than one percent of the City's not Hispanic or Latino population. Asian alone makes up a higher share of the City's not Hispanic or Latino population at 24 percent compared to the County (nine percent) and the share is comparable to the State (25 percent). No Native Hawaiian or Other Pacific Islander alone are estimated in the City, but the group exists elsewhere in the County with less than one percent share, as well as one percent share at the State level. The City's population identifying as some other race alone accounts for about a third of the County's total some other race alone population. Two or more races account for four percent of the City's not Hispanic or Latino population, six percent of the County, and seven percent of the State.

Table 14 Race and Ethnicity (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Not Hispanic or Latino	3,284	16%	25,859	14%	23,611,955	60%
White alone	2,171	66%	16,894	65%	13,573,226	57%
Black or African American alone	162	5%	3,935	15%	2,076,395	9%
American Indian and Alaska Native alone	15	<1%	1,197	5%	107,379	<1%
Asian alone	784	24%	2,287	9%	5,906,995	25%
Native Hawaiian and Other Pacific Islander alone	0	0%	18	<1%	132,838	1%
Some Other Race alone	29	1%	99	<1%	209,918	1%
Two or More Races	123	4%	1,429	6%	1,605,204	7%
Hispanic or Latino (of any race)	17,659	84%	153,460	86%	15,630,830	40%
Total	20,943	100%	179,319	100%	39,242,785	100%

Source: American Community Survey 2023 Five-Year Estimates, Table DP05

Of the population identifying as Hispanic or Latino in the City, nearly all identify as Mexican (98 percent), which is a slightly higher share than the County (97 percent) and 17 percentage points higher than the State (81 percent), as shown in Table 15. The Puerto Rican population accounts for less than one percent of the City's total Hispanic or Latino population, which is similar to the County (less than one percent) and State (one percent). The City's Cuban population accounts for a majority of the County's Cuban population, though the group still only make up less than one percent of the total Hispanic or Latino population in the City and County. Other Hispanic or Latino groups make up one percent of the City's Hispanic or Latino population, which is a smaller share than the County (three percent) and State (17 percent).

Table 15 Breakdown of Hispanic or Latino (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Mexican	17,242	98%	148,315	97%	12,657,515	81%
Puerto Rican	64	<1%	453	<1%	224,544	1%
Cuban	193	1%	239	<1%	99,986	1%
Other Hispanic or Latino	160	1%	4,453	3%	2,648,785	17%
Total	17,659	100%	153,460	100%	15,630,830	100%

Source: American Community Survey 2023 Five-Year Estimates, Table DP05.

3.4 LANGUAGE ACCESS, LINGUISTIC ISOLATION, AND ENGLISH PROFICIENCY

Language access shapes how communities understand, communicate about, and respond to environmental risks. It can also limit access to broader opportunities, including jobs, education, and support programs, which in turn reduces a community's capacity to adapt to challenges. Limited English-speaking households account for 13 percent of all households in the City as shown in Table 16. This share is smaller than the County (24 percent) and larger share than the State (eight percent). Table 17 illustrates the languages of households that are limited English-speaking. Of such households, Spanish is the most frequent at-home language, accounting for 91 percent of all such households in the City. This share is less than the County (99 percent) but more than the State (53 percent). Asian and Pacific Island languages account for nine percent of limited English-speaking households in the City, which is a higher share than the County (one percent) and State (34 percent). Other languages are spoken in limited English-speaking households in the State and other parts of the County, but no households that speak other languages are reported in the City.

Table 16 Limited English-Speaking Households (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Limited English-speaking households	781	13%	11,641	24%	1,118,772	8%
Non limited English-speaking households	5,239	87%	37,203	76%	12,316,075	92%
Total	6,020	100%	48,844	100%	13,434,847	100%

Source: American Community Survey 2023 Five-Year Estimates, Table S1602.

Table 17 Languages of Limited English-Speaking Households (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Spanish	713	91%	11,474	99%	587,361	53%
Other Indo-European languages	0	0%	0	0%	122,778	11%
Asian and Pacific Island languages	68	9%	109	1%	381,000	34%
Other languages	0	0%	58	<1%	27,633	2%
Total	781	100%	11,641	100%	1,118,772	100%

Source: American Community Survey 2023 Five-Year Estimates, Table S1602.

As shown in Table 18, the most common language spoken at home in the City is Spanish, accounting for 65 percent of the population over five years old. This share is less than the County (74 percent) but over double the share of the State (28 percent). English only is the second most common language at home, accounting for 31 percent of the City, compared to 25 percent of the County, and 56 percent of the State. Korean (two percent) and Arabic (one percent) are the next most common language spoken at home, both of which have a share equal or larger than the County or State. Korean accounts for less than one percent of the County's languages spoken at home and one percent of the State. Arabic accounts for less than one percent of the County's share and one percent of the State's share. Most of the County's Korean and Arabic spoken at home populations are in the City.

Table 18 Languages Spoken at Home (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Speak only English	5,992	31%	41,495	25%	20,713,291	56%
Spanish	12,451	65%	122,529	74%	10,446,277	28%
Other Indo-European	22	<1%	340	<1%	1,239,326	3%
Korean	309	2%	475	<1%	355,494	1%
Chinese	28	<1%	227	<1%	1,274,086	3%
Vietnamese	95	<1%	124	<1%	562,701	2%
Tagalog	86	<1%	328	<1%	769,480	2%
Other Asian and Pacific Island	29	<1%	177	<1%	726,747	2%
Arabic	179	1%	180	<1%	211,800	1%
Total	19,191	100%	166,320	100%	37,028,644	100%

Notes: Total represents population 5 years and over. Percentages may not total 100% due to rounding. Categories representing less than 1% are shown as "<1%."

Source: American Community Survey 2023 Five-Year Estimates, Table C16001.

Of all the language groups, only the Spanish and Korean spoken at home populations have individuals who speak English less than "very well," as shown in Table 19. In total, 4,500 individuals are estimated to not speak English "very well" in the City, of which 94 percent are Spanish-speakers and six percent are Korean speakers.

Table 19 Languages of Individuals Speaking English Less Than "Very Well" (2023)

Group	City of Imperial Estimate	City of Imperial % Total
Spanish	4,221	94%
Korean	279	6%
Total	4,500	100%

Notes: Languages listed only represent languages spoken at home in City of Imperial and excludes other languages spoken in Imperial County and at the State.

Source: American Community Survey Table 2023 Five-Year Estimates, C16001.

3.5 EDUCATIONAL ATTAINMENT

Education is closely tied to economic opportunity, health outcomes, and social mobility. Communities with lower educational attainment may face greater barriers to securing stable employment, participating in civic processes, or accessing information about environmental risks. As shown in Table 20, there are 7,766 students estimated in the City (34 percent of the total population). Nursery school and preschool students account for three percent of the population three years and over enrolled in school, which is a smaller share than the County (five percent) and State (five percent). Kindergarten students account for 11 percent of the City's student population, which is a higher share than the County (six percent) and State (five percent). Elementary school students account for 40 percent of the City's student population, which is a similar share to the County (40 percent) and State (39 percent). High school students account for 21 percent of the City's student population, which is a lower share than the County (26 percent) but similar to the State (21 percent). College or graduate school students account for 25 percent of the City's student population, which is slightly higher than the County share (23 percent) and less than the State share (30 percent).

Table 20 School Enrollment (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Nursery school, preschool	237	3%	2,941	5%	507,325	5%
Kindergarten	847	11%	3,097	6%	486,004	5%
Elementary school (grades 1-8)	3,141	40%	22,332	40%	3,859,769	39%
High school (grades 9-12)	1,629	21%	14,610	26%	2,139,830	21%
College or graduate school	1,912	25%	13,152	23%	2,999,042	30%
Total	7,766	100%	56,132	100%	9,991,970	100%

Notes: Total represents population three years and over enrolled in school.

Source: American Community Survey 2023 Five-Year Estimates, Table DP02.

A large majority of the City population 25 years over and older are high school graduates or higher (83 percent), as shown in Table 21. The percentage of high school graduates or higher in the City is higher than the County (72 percent) but lower than the State (85 percent). The population holding a bachelor's degree or higher account for 20 percent of the City's 25 years and over population, which is a higher share than the County (16 percent) but less than the State (37 percent). The share of the people 25 years and over in the City without a high school diploma or equivalent is 17 percent, which is lower than the County (28 percent) but higher than the State (15 percent).

Table 21 Educational Attainment Overview (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
No high school	2,019	17%	31,132	28%	4,149,146	15%
High school graduate or higher	9,801	83%	79,450	72%	22,792,052	85%
Bachelor's degree or higher	2,399	20%	17,804	16%	9,834,361	37%

Notes: Accounts for population 25 years and over only.

Source: American Community Survey 2023 Five-Year Estimates, Table DP02.

Table 22 breaks down educational attainment levels in further detail. The share of the population 25 years and over with less than ninth grade educational attainment in the City is six percent, which is lower than the County (14 percent) and the State (nine percent). Those with ninth to twelfth grade education with no diploma account for 11 percent of the City's 25 years and over population, which is a lower share than the County (14 percent) and State (seven percent). High school graduates account for 26 percent in the City, which is a similar share to the County (26 percent) and higher share than the State (20 percent). The share of those with some college but no degree account for 28 percent in the City, which is a higher share than the County (22 percent) and State (20 percent). Associate's degree holders in the City also have up a slightly higher share at nine percent, compared to the County (eight percent) and State (eight percent). Bachelor's degree holders account for 13 percent of the City's 25 years and older population, which is a higher share than the County (12 percent) but lower than the State (22 percent). Graduate or professional degree holders account for seven percent in the City, which is higher than the County share (five percent) and lower than the State share (14 percent).

Table 22 Educational Attainment Breakdown (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Less than 9th grade	663	6%	15,603	14%	2,343,992	9%
9th to 12th grade, no diploma	1,356	11%	15,529	14%	1,805,154	7%
High school graduate (includes equivalency)	3,040	26%	28,625	26%	5,496,195	20%
Some college, no degree	3,332	28%	24,421	22%	5,327,128	20%
Associate's degree	1,030	9%	8,600	8%	2,134,368	8%
Bachelor's degree	1,517	13%	12,731	12%	6,035,609	22%
Graduate or professional degree	882	7%	5,073	5%	3,798,752	14%
Total	11,820	100%	110,582	100%	26,941,198	100%

Notes: Total represents population 25 years and over.

Source: American Community Survey 2023 Five-Year Estimates, Table DP02.

3.6 INCOME AND POVERTY

Income and poverty directly influence a community's ability to secure safe housing, access healthcare, and recover from environmental hazards. Lower-income households are more likely to live in areas with higher exposure to pollution or inadequate infrastructure, while also having fewer resources to relocate or mitigate risks. Examining income and poverty highlight structural inequities that limit social mobility and perpetuate disproportionate environmental burdens.

Table 23 provides a detailed breakdown of incomes by households. The median household income in the City was $83,214 in 2023, as shown in Table 23. The City median is 47.6 percent higher than the County median of $56,393 and about 13.6 percent lower than the State median of $96,334.

Households earning less than $10,000 in 2023 inflation-adjusted dollars account for three percent of total households in the City, which is a smaller share than both the County (seven percent) and State (four percent). Households

earning $10,000 to $14,999 account for two percent of the City, which is a smaller share than the County (five percent) and State (three percent). Households earning $15,000 to $24,999 account for 11 percent of the City's total households, which is a smaller share than the County (12 percent) and State (five percent). Households earning $25,000 to $34,999 comprise three percent of the City, which is lower than both the County (eight percent) and State (five percent). Households earning $50,000 to $74,999 account for 15 percent of the City's households, which is a similar share to the County (15 percent) and slightly higher than the State (13 percent). Households earning $75,000 to $99,999 account for 15 percent of the City, which is a higher share than the County (11 percent) and Sate (12 percent). Households earning more than $100,000 per year make up the largest share of households in the City at 41 percent, which is a higher share compared to the County (28 percent) but slightly less than the State (48 percent).

Table 23 Income (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Less than $10,000	198	3%	3,332	7%	590,168	4%
$10,000 to $14,999	135	2%	2,324	5%	406,129	3%
$15,000 to $24,999	638	11%	5,931	12%	698,778	5%
$25,000 to $34,999	197	3%	4,082	8%	734,346	5%
$35,000 to $49,999	610	10%	6,356	13%	1,129,253	8%
$50,000 to $74,999	890	15%	7,500	15%	1,782,312	13%
$75,000 to $99,999	909	15%	5,586	11%	1,583,411	12%
$100,000 or more	2,443	41%	13,733	28%	6,510,450	48%
Total	6,020	100%	48,844	100%	13,434,847	100%
Median Household Income	$83,214	-	$56,393	-	$96,334	-

Notes: In 2023 inflation-adjusted dollars.

Source: American Community Survey 2023 Five-Year Estimates, Table DP03.

Households living below or near the poverty line are more likely to reside in older or lower-quality housing, in areas with greater exposure to pollution, flooding, or other risks. Poverty also limits access to healthcare, education, and other opportunities, reinforcing cycles of disadvantage and increasing the likelihood of disproportionate environmental and health burdens. Table 24 examines the poverty levels of various groups and household types in the City. The City's overall percentage of population below the poverty level is 12 percent, which is comparable to the State (12 percent) but lower than the County (20 percent). Among families with children, the City has especially low rates of poverty compared with the County and slightly lower than the State. Among families with children of the householder under 18, the percentage below poverty level is 11 percent, which is lower than the County (23 percent) and State (12 percent). Among families with children of the householder under the age of 5, the percentage below poverty level is nine percent, which is also lower than the County (28 percent) and State (10 percent).

Among married couple families, the percentage of the population below poverty level is even lower. Among married couple families with children of the householder under 18 years, the percentage below poverty level is four percent, which is more than three times lower than the County (13 percent) and nearly half of the State (seven percent). The percentage below poverty level for families with female householder and no spouse present varies based on the ages of household members. Overall, the percentage below poverty level for this group in the City is 24 percent, which is higher than the State (20 percent), but lower than the County (35 percent). Households with children under 18 years related to the householder generally have a higher percentage below poverty level. In the City, the rate is 27 percent, 46 percent in the County, and 28 percent in the State. Among households with related children of the householder under 5 years only, the rate increases significantly to 57 percent in the City, 50 percent in the County, and 30 percent in the State.

Among all individual people in the City 64 years or younger, the percentage below poverty level is generally lower than the County. Among people under 18 years and unrelated individuals 15 years and over, the percentage below poverty level in the City is lower than the County and State. Among adults 18 years and older, 18-64 years, and people in families,

the percentage below the poverty level is below the County but above or equal to the State. The percentage below poverty level for 65 years and over is higher in the City (22 percent) than the County (20 percent) and State (11 percent).

Table 24 Percentage Below Poverty Level (2023)

Group	City of Imperial	Imperial County	State
All people	12%	20%	12%
All families			
With related children of the householder under 18 years	11%	23%	12%
With related children of the householder under 5 years only	9%	28%	10%
Total	11%	17%	8%
Married couple families			
With related children of the householder under 18 years	4%	13%	7%
With related children of the householder under 5 years only	0%	17%	4%
Total	6%	11%	5%
Families with female householder, no spouse present			
With related children of the householder under 18 years	27%	46%	28%
With related children of the householder under 5 years only	57%	50%	30%
Total	24%	35%	20%
All people			
Under 18 years	12%	25%	15%
Related children of the householder under 18 years	12%	25%	15%
Related children of the householder under 5 years	14%	31%	15%
Related children of the householder 5 to 17 years	11%	23%	15%
18 years and over	13%	17%	11%
18 to 64 years	11%	17%	11%
65 years and over	22%	20%	11%
People in families	12%	18%	9%
Unrelated individuals 15 years and over	18%	32%	25%

Source: American Community Survey 2023 Five-Year Estimates, Table DP03.

3.7 ACCESS TO HEALTH INSURANCE

Health insurance coverage plays a key role in environmental justice analysis because it determines access to medical care, preventive services, and treatment for conditions that may be worsened by environmental hazards. Populations with lower rates of coverage are less able to manage chronic illnesses or recover from exposure-related health impacts. Examining health insurance disparities highlights structural barriers to health and social mobility that compound environmental vulnerabilities. Table 25 shows how a vast majority of the City population has health insurance, at 95 percent, which is a coverage rate higher than both the County (93 percent) and State (93 percent). The share of the population with no health insurance accounts for five percent of the City population, which is a lower share than the County (seven percent) and State (seven percent). Insurance coverage for the population under 19 years of age is similar across the City (three percent), County (two percent), and State (three percent), as shown in Table 26.

Table 25 Insurance Coverage (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
With health insurance	19,764	95%	160,157	93%	36,079,006	93%
No health insurance	1,134	5%	11,673	7%	6,510,450	7%
Total	20,898	100%	171,830	100%	38,761,738	100%

Notes: Total represents civilian noninstitutionalized population.

Source: American Community Survey 2023 Five-Year Estimates, Table DP03.

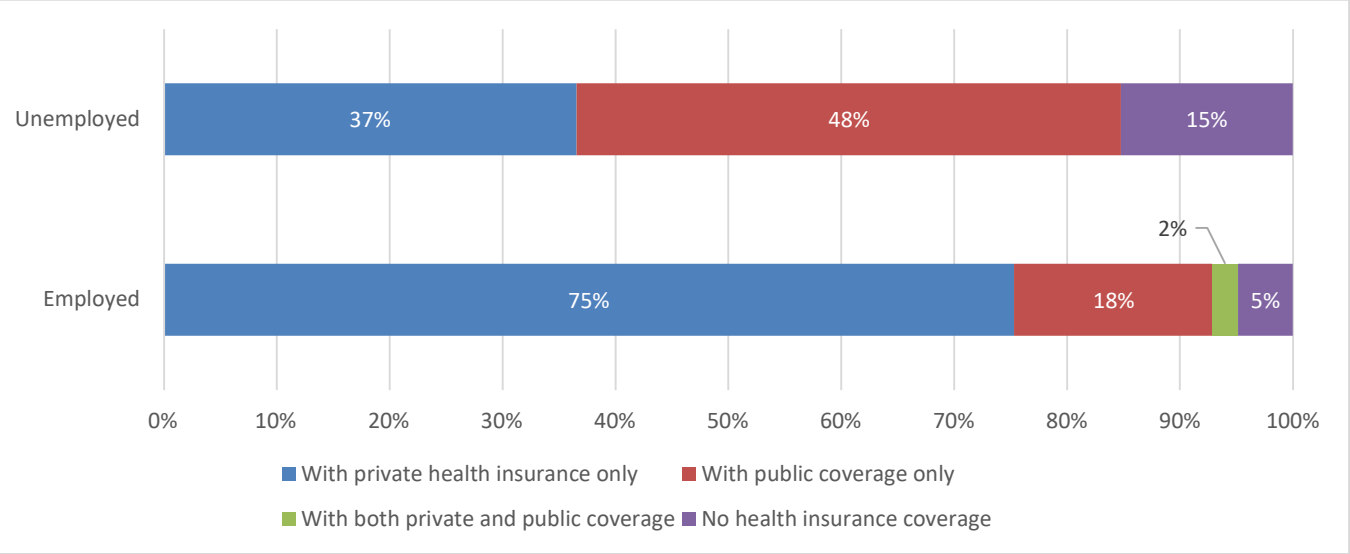
Table 26 Insurance Coverage for Population Under 19 (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Population under 19 with no health insurance coverage	229	3%	1,250	2%	310,351	3%

Notes: Total represents civilian noninstitutionalized population.

Source: American Community Survey 2023 Five-Year Estimates, Table DP03.

Employer-sponsored health insurance coverage is often contingent on employment status. Unemployed individuals are more likely to rely on public coverage, but without income they may struggle to afford premiums or qualify for adequate plans, leaving some without coverage altogether. Without coverage, they face higher risks from untreated health conditions and limited access to care, making them more vulnerable to the impacts of environmental hazards. Examining these statistics highlights how gaps in both employment and insurance systems can compound environmental and health inequities. **Figure 13** illustrates the types of insurance coverage based on employment status in the City. Among the City's employed population, most are covered by private insurance, either exclusively with private insurance (75 percent) or both private and public coverage (two percent). The remaining population has public coverage only (18 percent) and five percent have no health insurance coverage. Among the City's unemployed population, 37 percent are covered by private insurance, 48 percent have public coverage, and 15 percent do not have any insurance coverage. There are no recorded instances of people having both private and public coverage among the City's unemployed population.



Notes: Total represents civilian noninstitutionalized population.

Source: American Community Survey 2023 Five-Year Estimates, Table DP03; adapted by Ascent in 2025.

Figure 13 Types of Health Insurance by Employment Status (2023)

3.8 EMPLOYMENT AND LABOR FORCE CHARACTERISTICS

3.8.1 Unemployment Rates

Communities with higher unemployment may face greater financial strain, limiting their ability to secure safe housing, maintain healthcare, or recover from environmental hazards. The City's unemployment rate is nine percent, as shown in Table 27, which is lower than the County (13 percent) but higher than the State (six percent).

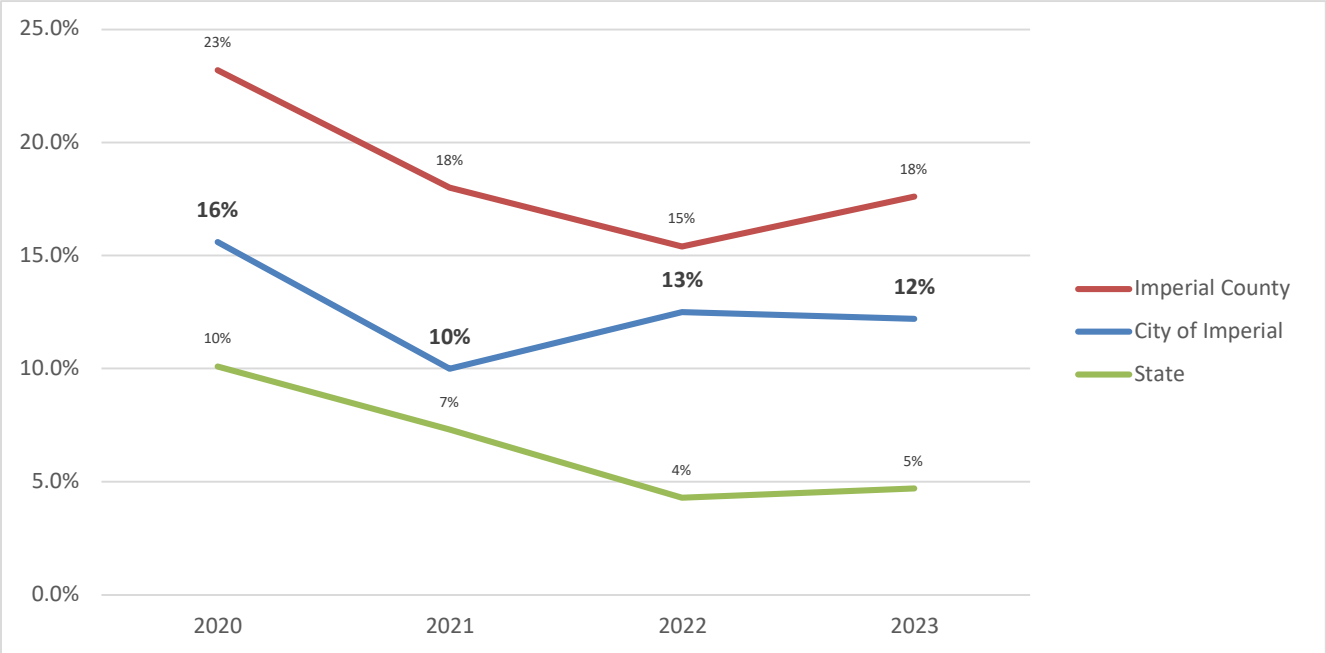
Table 27 Unemployment (2023)

Group	City of Imperial	Imperial County	State
Unemployment Rate	9%	13%	6%

Notes: Based on civilian employed population 16 years and over.

Source: American Community Survey 2023 Five-Year Estimates, Table DP03.

The City's more recent unemployment rate was 12 percent in 2023. Figure 14 presents unemployment rates between 2020 and 2023. Every year between 2020 and 2023, the City had an unemployment rate lower than the County but higher than the State. Like the County and State in 2020, the City had its highest unemployment rate in this period (16 percent). The year where the City had its lowest unemployment was in 2021, while the County and State had 2022 as the year with their lowest unemployment.



Source: California Employment Development Department 2025.

Figure 14 Unemployment Rate Over Time (2020-2023)

3.8.2 Occupations

Residents employed in industries such as agriculture, construction, or manufacturing may face higher direct exposure to environmental hazards, including air pollution, pesticides, or extreme heat. Industry and occupation data also highlight concentrations of low-wage or precarious work, which can limit economic mobility and increase sensitivity to environmental and health risks. Table 28 breaks down occupations among the civilian employed population 16 years and over. In the City, service occupations make up the largest share at 35 percent, followed by management, business,

science, and arts at 34 percent. Sales and office occupations make up 17 percent, followed by production, transportation, and material moving occupations (7 percent) and natural resources, construction, and maintenance occupations (6 percent). Compared to the County, the City has more management, business, science, art, and service occupations, and much less natural resources, construction, maintenance, production, transportation, and material moving occupations.

Table 28 Occupations (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Management, business, science, and arts occupations	2,532	34%	15,579	25%	7,981,376	43%
Service occupations	2,667	35%	16,620	27%	3,260,128	17%
Sales and office occupations	1,317	17%	11,517	19%	3,621,290	19%
Natural resources, construction, and maintenance occupations	467	6%	9,384	15%	1,622,511	9%
Production, transportation, and material moving occupations	553	7%	8,239	13%	2,214,918	12%
Total	7,536	100%	61,339	100%	18,700,223	100%

Notes: Total represents civilian employed population 16 years and over.

Source: American Community Survey 2023 Five-Year Estimates, Table DP03.

3.8.3 Employment Industries

Table 29 outlines the employment industries of the civilian employed population 16 years and over. Similar to the County and State, educational services, and health care and social assistance accounts for the largest share of the City's industries (28 percent). Public administration is the next largest industry in the City at 17 percent, which is a greater share than the County (11 percent) and State (5 percent). Arts, entertainment, and recreation, and accommodation and food services accounts for 15 percent of the City's industries, which is also a higher share than the City (nine percent) and State (ten percent). Professional, scientific, and management, and administrative and waste management services account for ten percent of all industries in the City, which is a higher share than the County (seven percent) and lower than the State (14 percent). Major County-wide industries that are less common in the City include retail and agriculture, forestry, fishing and hunting, and mining. The County has a higher share of agriculture, forestry, fishing and hunting, and mining (10 percent) than the State (two percent).

Table 29 Industry (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Agriculture, forestry, fishing and hunting, and mining	82	1%	6,036	10%	380,609	2%
Construction	151	2%	3,436	6%	1,253,773	7%
Manufacturing	179	2%	2,522	4%	1,665,814	9%
Wholesale trade	137	2%	1,520	2%	462,324	2%
Retail trade	524	7%	7,188	12%	1,893,259	10%
Transportation and warehousing, and utilities	504	7%	4,084	7%	1,122,018	6%
Information	97	1%	497	1%	546,304	3%
Finance and insurance, and real estate and rental and leasing	328	4%	1,967	3%	1,066,811	6%

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Professional, scientific, and management, and administrative and waste management services	717	10%	4,567	7%	2,677,526	14%
Educational services, and health care and social assistance	2,101	28%	14,569	24%	4,062,424	22%
Arts, entertainment, recreation, and accommodation and food services	1,095	15%	5,686	9%	1,781,368	10%
Other services, except public administration	358	5%	2,699	4%	904,454	5%
Public administration	1,263	17%	6,568	11%	883,539	5%
Total	7,536	100%	61,339	100%	18,700,223	100%

Notes: Total represents civilian employed population 16 years and over.

Source: American Community Survey 2023 Five-Year Estimates, Table DP03.

4 POLLUTION EXPOSURE AND HEALTH RISKS

4.1 KEY TAKEAWAYS

Pollution exposure in the City is predominantly associated with air quality, water quality threats, hazardous waste, airport operational activities, and extreme heat.

- **Air Quality:** Although CalEnviroScreen percentile scores for air quality are moderate within the city, the county and the broader region have some of the highest rates of air pollution levels in the state. As a result, those residing and working in the city are at risk of adverse health effects.
- **Water Quality:** While the City's drinking water currently meets regulatory standards, contaminant levels are near threshold limits. Combined with reliance on a single water source and documented groundwater threats from leaking underground storage tanks, cleanup sites, and regional contamination such as the New River, residents remain at potential risk of exposure to unsafe water quality.
- **Hazardous Waste:** Census tracts within the city measured above the 79th percentile based on the CalEnviroScreen 4.0 indicator for hazardous waste. Some residential neighborhoods are located within 200 feet of hazardous waste generators and cleanup sites, increasing potential health risks.
- **Airport Pollution:** Imperial County Airport operations expose nearby sensitive receptors (i.e., residences, elementary school) to air and noise pollution that could result in potential health-related risks.
- **Extreme Heat:** The City ranks in the 96th percentile of historical heat and health burden and in the 74th percentile for overall heat and health (CDC 2025). Extreme heat not only threatens vulnerable populations directly but also exacerbates air pollution, compounding health risks for residents.
- **Pesticide Exposure**: Ongoing agricultural activity in and around the city contributes to high pesticide exposure, with Imperial census tracts ranking in the 82nd to 88th percentiles statewide. These exposures pose particular risks for farmworker households and nearby residents, who may face long-term health impacts from pesticide drift, contaminated water, and soil residues.

4.2 AIR QUALITY

Air quality is an important factor that affects community health and the environment. Air quality is assessed by measuring the concentration of pollutants in the air, exposure to which has been linked to respiratory and cardiovascular health issues. Air quality is often a regional issue, as natural factors such as wind and terrain can affect the transport and dilution of air pollutant emissions. Therefore, in addition to local air quality conditions, county and regional air quality also relate to environmental justice in the City.

Imperial County has consistently received a failing grade on the American Lung Association air quality report card and currently fails to meet federal and state air quality standards. Sources of air pollutants in the region include agricultural activities, off-road equipment, on-road vehicles, unpaved roads, and industrial activities (ICAPCD 2018). In addition, air quality in the region is affected by cross-border activity (e.g., transportation) and heavy industry in Mexico, due to the proximity to the U.S.-Mexico border.

4.2.1 Air Quality Monitoring

Air quality in the region is regulated through the efforts of various federal, State, and local government agencies. The City is located within the Salton Sea Air Basin and is under the jurisdiction of the Imperial County Air Pollution Control District (ICAPCD). ICAPCD is the local agency responsible for attaining and maintaining air quality standards. There are currently five government operated air quality monitoring stations throughout Imperial County which are used to determine if pollution levels meet federal and State air quality standards. The nearest government operated air

quality monitoring station to the City is the ICAPCD El Centro Monitoring Station, located on 9th Street in the City of El Centro, approximately 3 miles south of the city.

In addition to the government network of air quality monitoring stations, there is a community air monitoring network of 40 air monitors throughout the county that measures current levels of $PM_{2.5}$ and PM_{10}. This network, called the Identifying Violation Affecting Neighborhoods (IVAN) Air Monitoring Network, was developed to provide residents with real-time local air quality data.

Assembly Bill (AB) 617 established the Community Air Protection Program, which requires the California Air Resources Board (CARB) and local air districts to identify communities disproportionately impacted by air pollution and to develop strategies for monitoring and emissions reduction. Under this program, local community members have collaborated with the ICAPCD to address local sources of pollution. The South End Steering Committee, which represents an industrial corridor extending through the communities of Calexico, El Centro, and Heber, has developed a Community Emissions Reduction Program (CERP) to reduce air emissions in communities disproportionately burdened by air pollution. The CERP includes targeted actions such as reducing emissions from heavy-duty trucks, increasing inspections of industrial facilities, and improving air filtration at schools to provide direct benefits to communities that bear the highest pollution burdens.

4.2.2 Exposure to Air Pollutants

Air pollutants are generally split into three categories: criteria air pollutants, toxic air contaminants, and greenhouse gases. Criteria air pollutants are the six common pollutants for which there are federal and State standards and that are considered harmful to human health and the environment. Areas that meet concentration standards are in "attainment" and areas that are above acceptable standards are in "nonattainment." The six criteria pollutants are ground-level ozone, particulate matter (PM), carbon monoxide, lead, sulfur dioxide, and nitrogen dioxide. Of the six criteria air pollutants, PM and ozone pose the most widespread and significant health threats (OEHHA 2021: 37).

Toxic air contaminants are pollutants that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health, even at low concentrations. Unlike criteria air pollutants, there are no safe thresholds below which health impacts would not occur. Greenhouse gases, while not directly harmful to human health in the same way, contribute to climate change, which has long-term impacts on community health and environmental conditions.

Imperial County is designated as a nonattainment area for:

- ground-level ozone precursor emissions (State and federal standards),
- PM_{10} emissions (State and federal standards), and
- $PM_{2.5}$ (federal standards).

This means that the county is regularly exposed to unhealthy levels of these pollutants. In 2024, there were 17 days during which ozone levels in the county exceeded national standards (Tracking California 2025). In 2024, the last year in which data were available, the Salton Sea Air Basin there were 163 days during which PM_{10} levels exceeded state standards for 163 days (CARB n.d.).

CalEnviroScreen 4.0 provides pollutant exposure data by census tract. The $PM_{2.5}$ indicator represents the average concentration of $PM_{2.5}$ in the air, and the diesel PM indicator represents the diesel PM emitted into the air within and near the populated portions of the census tract. Both census tracts within city limits measured below the 40th percentile for $PM_{2.5}$ and diesel PM suggesting relatively lower exposure compared to other parts of the county. Communities further south such as El Centro and Calexico experience greater diesel PM concentrations, largely associated with cross-border traffic and industrial activity. However, ozone burdens are higher. For ozone exposure, Census Tract 110.00 is in the 52nd percentile and Census Tract 112.01 is in the 58th percentile. This means that portions of the city experience a higher ozone burden than approximately 52 and 58 percent of other census tracts in California respectively. Neighboring census tracts measured even higher ozone percentiles, between the 58th and 63rd percentile.

While the City itself does not rank high on CalEnviroScreen 4.0 indicators for PM2.5 and diesel PM, the broader region continues to experience some of the highest and most persistent air pollution levels in California. As a result, residents are at elevated risk of respiratory illness, cardiovascular disease, and other pollution-related health impacts. From an environmental justice perspective, vulnerable populations including children, seniors, and those with pre-existing health conditions are disproportionately affected, as they have fewer resources to mitigate or adapt to poor air quality.

4.2.3 Toxic Hot Spots and Toxic Release Inventory

Facilities that make or use toxic chemicals can release harmful substances into the air, posing health risks for people living nearby. CalEnviroScreen 4.0 includes an indicator of toxic releases from facilities which represents modeled air concentration of chemical releases from large facility emissions within and nearby census tracts. Both census tracts within city limits measured below the 16th percentile for toxic releases from facilities. Neighboring census tracts show similar concentrations though areas farther south (e.g., City of Calexico) measured above the 48th percentile for toxic releases from facilities, reflecting higher exposure burdens near the border and industrial corridors.

The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) requires stationary sources (e.g., manufacturing facilities) to report the types and quantities of certain substances released into the air. The goals of the "Hot Spots" Act are to identify facilities having localized impacts, ascertain health risks, and reduce risks to acceptable levels (CARB 2025). The location of "Hot Spot" facilities are mapped in **Figure 15**.

At the federal level, the U.S. Environmental Protection Agency (EPA) Toxics Release Inventory (TRI) Program tracks the industrial management of certain toxic chemicals that may pose a threat to human health. Based on the most recent national dataset (2023), there are five TRI facilities within Imperial County, two of which are located within 10 miles of the city (EPA 2025). Although there are no TRI facilities within the city, because of the nature of air pollution (e.g., carried by wind and weather patterns) emissions generated by nearby facilities can still adversely affect those residing and working in the city. In 2023 alone, approximately 36 percent of total chemical releases in the County (i.e. approximately 103,000 pounds) were released by air (EPA 2025). In addition to the TRI facilities, there are 11 additional facilities within a 10-mile radius of Imperial that are regulated under federal air, water, and hazardous waste programs (i.e., Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act). These facilities also produce, release, or manage TRI-reportable chemicals.

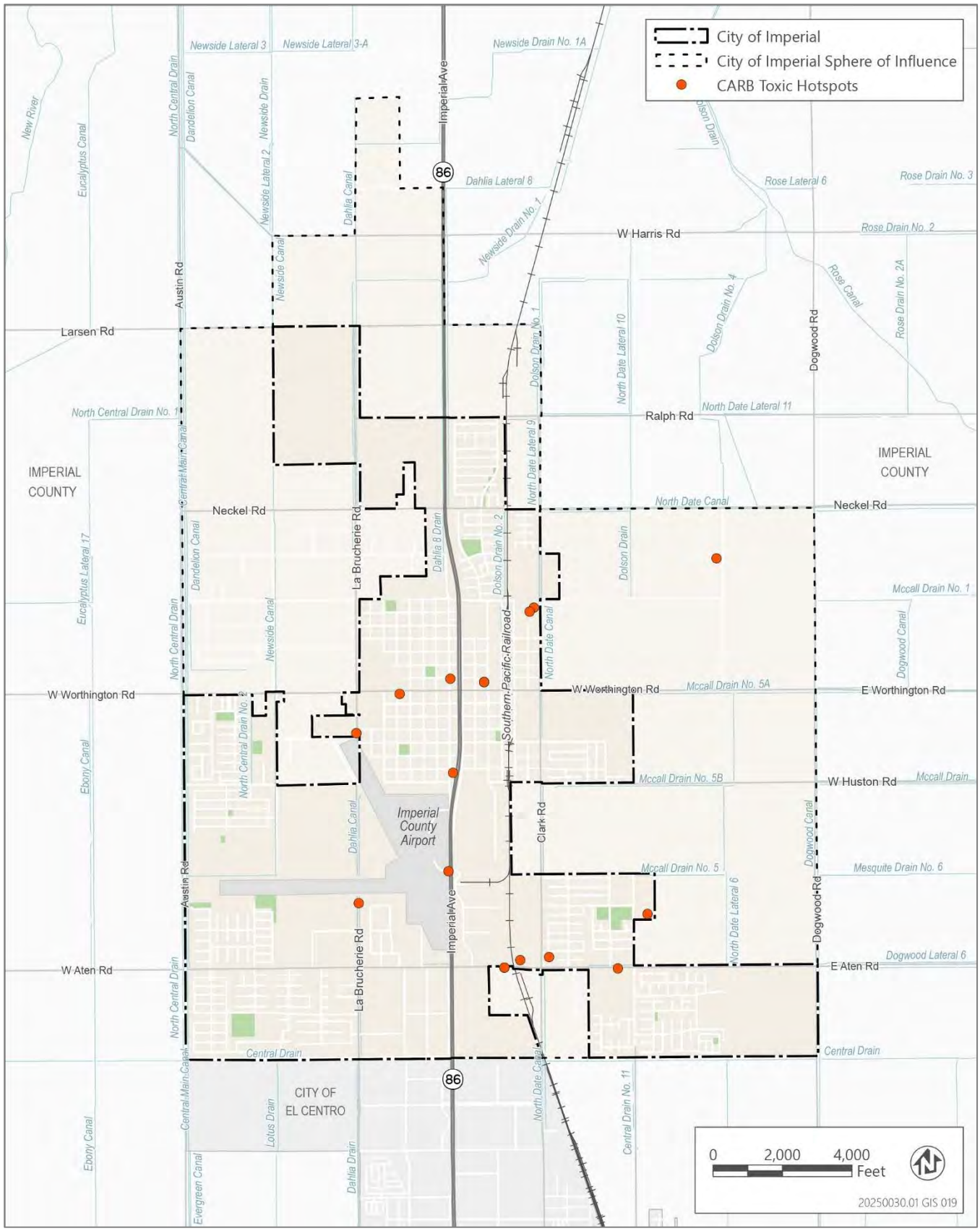
4.2.4 Asthma

Asthma is a chronic disease that makes breathing difficult and can be triggered or worsened by air pollutants such as particulate matter, ozone, and diesel exhaust (OEHHA 2021). CalEnviroScreen 4.0 includes an asthma indicator that measures emergency department visit rates for asthma. Both census tracts within city limits measured above the 85th percentile, meaning that the city experiences a higher asthma burden than approximately 85 percent of the state. Neighboring census tracts also show elevated asthma rates, ranging from the 78th to the 93rd percentile. These high rates demonstrate how regional air pollution translates into direct health impacts for residents.

4.3 WATER QUALITY

California has recognized access to safe drinking water as a basic human right. In 2012, AB 685, the "Human Right to Water" bill was signed into law. The bill, now codified as Section 106.3 of the State Water Code statutorily recognizes that every person has the right to safe, clean, affordable, and accessible water for human consumption, cooking, and sanitary purposes. In 2019, SB 200 established the Safe and Affordable Funding for Equity and Resilience (SAFER) Program; a set of tools, funding, and regulatory support to help communities maintain reliable access to safe and affordable drinking water (SWRCB 2022).

Water quality is regulated by the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). Imperial County is within RWQCB Region 7, the Colorado River Basin.



Source: Data downloaded from California Air Resources Board in 2025. adapted by Ascent in 2025.

Figure 15 Toxic Facilities in the City of Imperial

4.3.1 Drinking Water

The City's Department of Public Services is responsible for the operations and maintenance of the water system. The City receives its raw water supply from the Colorado River via Imperial Irrigation District facilities, which is then treated at the City's Water Treatment Plant.

CalEPA and SWRCB set maximum contaminant levels for drinking water. The SWRCB conducts an annual needs assessment to identify water systems that are out of compliance, consistently fail to meet applicable drinking water standards, or are at risk of failing. The categories of indicators in the risk assessment include water quality; accessibility; affordability; and technical, managerial, and financial (TMF) capacity. The SAFER Program uses the results of the annual needs assessment to inform the prioritization of financial and technical assistance to ensure access to safe drinking water.

As of 2024, the City was designated "potentially at-risk" based on its overall performance across the following risk indicators in the needs assessment:

- TMF capacity: No risk
- Affordability: Low risk
- Accessibility: Medium risk
- Water quality: Medium risk.

The medium water quality designation reflects contaminant levels approaching 80–100 percent of regulatory thresholds. In addition, because the City only has one source of water, it is considered a medium risk for water accessibility. While water quality does not currently exceed thresholds, these factors suggest that residents could be vulnerable to unsafe water if contaminants rise further or if water supply interruptions occur.

The National Pollutant Discharge Elimination System (NPDES) permit program, created under the Clean Water Act, helps to address water pollution by regulating point sources that discharge pollutants to U.S. waters. The NPDES Program is a federal program which has been delegated for implementation through the SWRCB and RWQCBs. An NPDES permit is typically a license for a facility to discharge a specified amount of a pollutant into receiving water under certain conditions. Permits may also authorize facilities to process, incinerate, landfill, or beneficially use sewage sludge. There are two facilities in the city with active NPDES permits, both of which pose a medium-risk threat to water quality in the city and surrounding communities (SWRCB 2025a).

CalEnviroScreen 4.0 also evaluates the quality of drinking water using a drinking water contaminants indicator. The indicator is an index score that combines information about concentrations of contaminants and water quality average violations. The drinking water pollution indicator for Census Tract 110.00 ranked higher than 64 percent of all census tracts in the state. In addition, both census tracts within the city measured above the 74th percentile for arsenic exposure to which is associated with elevated cancer rates (OEHHA 2021: 57). The drinking water pollution indicator for neighboring census tracts in nearby cities measured between the 25th and 69th percentile.

4.3.2 Groundwater

Groundwater basins are susceptible to contamination from numerous sources including leaking underground storage tanks (LUSTs), industrial activity, and agricultural runoff. Groundwater is not a part of the City's current drinking water sources, so the presence of groundwater contamination does not directly put the City's drinking supply at risk. However, people living near contaminated groundwater may be exposed to chemicals moving from soil into the air inside their homes (OEHHA 2021). Common soil and groundwater pollutants include gasoline and diesel fuel at gas stations as well as solvents, heavy metals, and pesticides.

Individual RWQCBs are the lead agencies responsible for identifying, monitoring, and cleaning up LUSTs. The SWRCB's GeoTracker database tracks cleanup sites and informs CalEnviroScreen 4.0's groundwater threat indicator, which considers site type, status, and proximity to populated areas. Within the City of Imperial: there are 27 closed

LUST sites and two active cleanup sites (i.e., sites that have had a leak or spill of a hazardous substance and are being, or have been, cleaned up) within the city. One LUST site is located along North Imperial Avenue and contains potential benzene and diesel contamination. The site is undergoing investigation and cleanup (SWRCB 2025b). The other LUST site is located along East Barioni Boulevard and contains diesel fuel and gasoline above levels of regulatory concern. The RWQCB Underground Storage Tank Cleanup staff has completed review of this site and the site is being proposed for case closure (SWRCB 2025b). In addition to the two LUST sites in the city, there are two cleanup program sites (i.e., sites that are regulated by the SWRCB Site Cleanup Program) in the city, the Imperial County Airport and Kinder Morgan. Both involve fuel storage and transportation and are subject to ongoing groundwater monitoring and remediation.

Another major source of groundwater and surface water contamination in the region is the New River, which flows north from Mexico through Calexico into Imperial County and the Salton Sea. The New River is considered one of the most polluted rivers in the United States, carrying untreated sewage, industrial waste, pesticides, and other pollutants. While the City of Imperial is not located directly along the river, its proximity exposes residents to pollution carried by the New River. This persistent contamination elevates regional risk and compounds existing local groundwater threats.

According to CalEnviroScreen 4.0, Census Tract 110.00 ranks above the 74th percentile for groundwater threat, while Census Tract 112.01 ranks at the 44th percentile. Neighboring tracts range from the 64th to the 95th percentile, indicating even higher relative threats. Although the groundwater percentile scores for the City are lower than some surrounding areas, parts of the city still experience groundwater threats that are higher than 74 percent of other tracts in the state.

4.4 EXPOSURE TO HAZARDOUS MATERIALS

4.4.1 Solid Waste Sites and Facilities

Solid waste facilities include landfills, composting sites, and recycling centers where waste is collected, processed, or stored. These facilities can release air pollutants and impact water quality if compounds leach into soil. The California Department of Resources, Recycling, and Recovery (CalRecycle) maintains the Solid Waste Information System (SWIS) database, which contains information on solid waste facilities, operations, and disposal sites throughout the state. There are 21 active solid waste sites in Imperial County, the majority of which are located within the southern portion of the county. Within the City of Imperial, there is an active recycling center located on East Barioni Boulevard and the nearest active solid waste facility (Imperial Landfill) is located approximately 1.5 miles east of the city and outside of the City's SOI (CalRecycle 2025). However, because solid waste pollutants can leach into soil, the presence of nearby facilities poses potential environmental and health risks to residents.

4.4.2 Hazardous Waste Sites and Generators

Hazardous waste, generated by commercial or industrial activities, can come in the form of liquids, solids, gases, or sludges. Only certain facilities are permitted to treat, store, or dispose of hazardous waste. Most hazardous waste is transported from sites that generate waste to permitted facilities for recycling, treatment, storage, or disposal. The California Department of Toxic Substances Control (DTSC), a division of the California Environmental Protection Agency, has primary regulatory responsibility over hazardous materials in the state. As required by Government Code Section 65962.5, DTSC maintains a hazardous waste and substances site list for the State, known as the Cortese List.

There are five hazardous waste and substances sites within the county listed on the Cortese List, three in the City of El Centro and one in the City of Brawley (DTSC n.d.). One site in El Centro is located along West Aten Road, adjacent to the city's southern boundary and is inspected annually. CalEnviroScreen 4.0 uses proximity to permitted hazardous waste generators or chrome plating facilities to assign a hazardous waste indicator score. The hazardous waste generators were identified from the DTSC Hazardous Waste Tracking System for 2018 to 2020 and only large quantity generators were included (OEHHA 2021). Both census tracts within the city measured above the 79th percentile for

hazardous waste. The hazardous waste indicator for surrounding cities and communities within the county range between 4 percent and 87 percent. Given the proximity of residential communities to existing hazardous waste generators, hazardous waste sites pose a potential health risk to the city.

4.4.3 Cleanup Sites

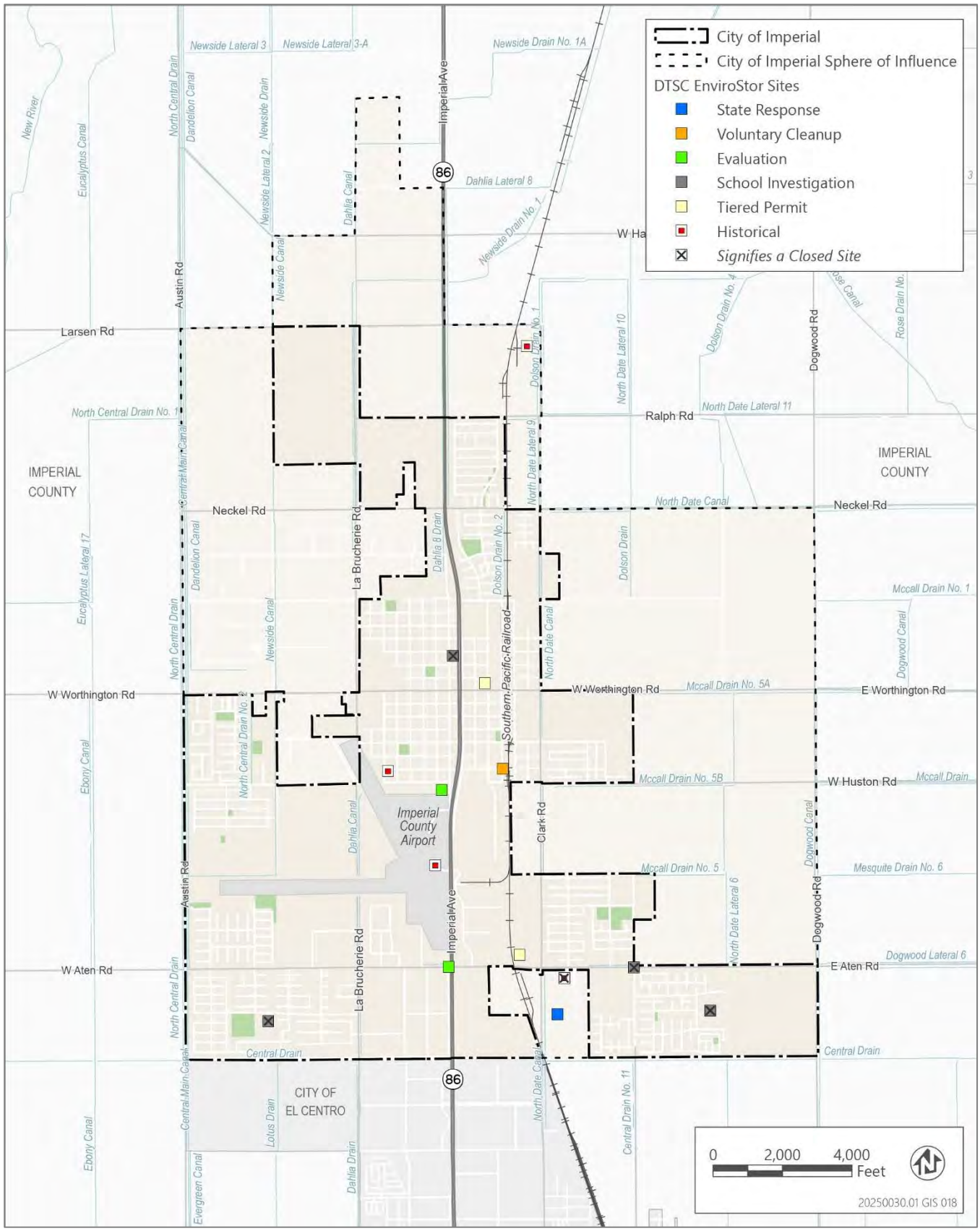
Cleanup sites are places that are contaminated with hazardous chemicals and require cleanup by the property owners or the government. People living near cleanup sites have greater potential to being exposed to chemicals from the sites. DTSC's EnviroStor database, which tracks cleanup, permitting, enforcement, and investigations, identifies six open cleanup sites and five closed sites within the City of Imperial (DTSC 2025a). Figure 16 maps EnviroStor sites in the city.

Two of the open sites are designated as historical, meaning they are from an older database where no site type was identified. One of these sites has no potential contaminants of concern listed, while another at 1095 Airport Road identified onsite pesticides as contaminants of concern (DTSC 2025b). Two open sites are tiered permit sites meaning they are a hazardous waste facility that either was eligible to treat or permitted to treat waste under the Tiered Permitting system and have implemented a corrective action cleanup project. One open site is an industrial site that has been undergoing remediation since 2012 under RWQCB oversight (DTSC 2011). One open site (i.e., Visco Flying Company) is identified as an evaluation site, meaning it is an identified but unconfirmed contaminated site that has gone through a limited investigation and assessment process (DTSC 2025c). Potential uses of concern from this facility include dichloro-diphenyl-trichloroethane (DDT), dichloro-diphenyl-dichloroethane (DDD), and dichloro-diphenyl-dichloroethene (DDE). Notably, the Visco Flying Company is located approximately 125 feet from residential communities. It has been noted that onsite soil contamination of DDT, DDD, and DDE have been present at elevated levels, although no formal sampling events have been conducted to characterize the extent of contamination (DTSC 2025c). One open site is designated as a voluntary cleanup site, meaning the project proponents have requested that DTSC oversee evaluation, investigation, and/or cleanup activities and have agreed to provide coverage for DTSC's costs for such activity. The proximity of cleanup sites to homes and schools raises environmental justice concerns, as residents may be exposed to hazardous chemicals despite limited formal documentation of risks.

4.5 AIRPORT

Airports are unique sources of environmental impacts, contributing both chronic noise exposure and localized air pollution that can affect nearby residents and schools. The Imperial County Airport Land Use Commission (ALUC) has jurisdiction over the management of appropriate development of areas surrounding the six public airports in Imperial County. State law requires the ALUC to prepare and adopt an airport land use compatibility plan (ALUCP) for each public-use and military airport. The ALUCP sets forth the criteria and policies used to assess compatibility between airports and proposed land use development in the area surrounding them. In addition, ALUCPs typically include airport noise contour maps illustrating the average daily noise exposure in the airport vicinity. The Imperial County ALUC is currently in the process of updating their ALUCP, which will replace the current ALUCP, adopted in 1996.

The City of Imperial is influenced by two nearby facilities: the Naval Air Facility (NAF) El Centro, located about 3.5 miles west, and the Imperial County Airport, located in the center of the city. While NAF El Centro is best known as the training base for the U.S. Navy Blue Angels, which generate substantial operational noise, the Imperial County Airport directly borders residential neighborhoods and TL Waggoner Elementary School. The proximity of these sensitive receptors places a significant portion of the city's population at risk of adverse health outcomes associated with both noise and air pollutant exposure. Airport and adjacent land use compatibility will be discussed in further detail in Section 8.1.1, Airport-Land Use Compatibility.



Source: Data downloaded from California Air Resources Board in 2025; adapted by Ascent in 2025.

Figure 16 Hazardous Waste Sites in the City of Imperial

4.6 EXTREME HEAT

Periods of extreme heat are times when temperatures are substantially hotter or more humid than average for a given location and date (CDC 2024a). Extreme heat can cause heat-related illness and even death in anyone though older people, young children, people who work outdoors, and people with chronic health conditions (e.g., asthma, heart disease) are more prone to heat-related health problems (CDC 2024b). The city ranks in the 96th percentile of historical heat and health burden and in the 74th percentile for overall heat and health on the Center for Disease Control (CDC) Heat Health Index Explorer (CDC 2025), demonstrating distinct susceptibility to extreme heat. The Imperial County Public Health Department collects data to monitor heat-related illness and deaths due to heat exposure. Between May and mid-July 2025, a total of 65 heat-related illnesses and zero probable deaths due to environmental heat exposure were reported; there were 196 such reports in 2024, including 11 deaths associated with heat exposure (ICPHD 2025).

Other communities and cities within the county measure at similar percentiles and are also more likely to feel the impacts of extreme heat. Although many serious illnesses are caused by extreme heat exposure alone, extreme heat can also lead to poor air quality. Specifically, the extreme heat and stagnant air during high temperatures can increase the photochemical reactions that produce ground level ozone and PM pollution (UCAR n.d.). Increases in these pollutants contribute to and exacerbate respiratory disease in children and adults (CDPH 2017: 11). As detailed above, the city measured in the CalEnviroScreen 4.0 85th percentile for asthma. Thus, air pollution exacerbated by extreme heat poses a threat to the health of city residents. The Imperial County Public Health Department has established education programs related to extreme heat and notifies the public about extreme heat events via flyers, online communications, and partnerships with community organizations. The department has also implemented cooling centers and hydration stations throughout the county that are free and open to the public. The Imperial Public Library serves as the city cooling center and hydration station during summer 2025. There are also three cooling and hydration centers and one cooling center in the City of El Centro.

4.7 PESTICIDES

Most of the city has historically been used for agricultural purposes. Ongoing agricultural operations occur throughout the city, and thus, the use of pesticides is of particular concern. Pesticides are chemicals used to control insects, weeds, and plant diseases and are typically applied to fields by air, farm machinery, or onsite by hand. Exposure to high levels of pesticides can have immediate and long-term health effects and communities near agricultural fields, primarily farm worker communities, may be at risk for pesticide exposure (OEHHA 2021). Because of their presence in groundwater, surface water, and air, pesticides are regulated under federal and state laws.

CalEnviroScreen 4.0 includes an indicator for community exposure to pesticides. The indicator adds up the number of pounds per square mile of 132 pesticide active ingredients for the years 2017 to 2019. The 132 chemicals were narrowed from a list of registered pesticides in use in the state by filtering for hazard and volatility as volatility is indicative of higher likelihood of drift and exposure (OEHHA 2021: 81). Census Tract 110.00 is in the 88th percentile and Census Tract 112.01 is in the 82nd percentile for CalEnviroScreen 4.0 pesticide exposure. According to CalEnviroScreen 4.0, the herbicide EPTC is the most widely used pesticide in the city. Although not considered a toxic air contaminant or volatile organic compound, EPTC is considered a potential groundwater contaminant (OEHHA 2021). Telone (1,3-dichloropropene) is a fungicide, insecticide, and nematicide that is also used frequently. Telone is considered a toxic air contaminant and volatile organic compound (CDPR n.d.).

The Imperial County Office of the Agricultural Commissioner is responsible for implementing and enforcing laws and regulations related to pesticide use. This office has implemented conditions for restricted materials use, including that no pesticides be applied to any field during irrigation where runoff is likely and that no aerial applications within 0.25 miles of a school or daycare occur within 12 hours of when school or daycare will be in session (Imperial County 2025). Although protections are in place to limit the exposure of people to pesticides, given ongoing agricultural operations, pesticide use still poses a risk to the city.

5 INFRASTRUCTURE

This section examines key infrastructure systems in the City, including water and sewer service, stormwater drainage, roadway and sidewalk conditions, and street lighting and utilities access. Infrastructure conditions influence residents' exposure to environmental hazards, access to essential services, and opportunities for safe and healthy living. Examining these systems helps identify burdens created by deficiencies and ensures that environmental justice strategies address both environmental and social inequities. The information presented provides a snapshot of current infrastructure conditions in the City and highlights areas where communities may face heightened risks.

Key takeaways from this section include:

- The City's water and sewer systems provide adequate capacity planned through 2042. While a small water storage deficit has been identified, multiple near and long-term water system upgrades are underway.
- Canals, which supply water for agricultural and urban uses, are prevalent throughout the City and may pose risks from low flows (e.g., water supply reliability and reduced power generation).
- Stormwater drainage relies on open-channel drains operated by Imperial Irrigation District, which function to dispose of agricultural return flows and urban runoff. Newer areas incorporate retention basins, while older neighborhoods face higher flood and runoff risks.
- Recent capital projects have prioritized pedestrian safety and connectivity, especially along Aten Boulevard and the downtown area. However, road and sidewalk networks remain incomplete.

5.1 WATER AND SEWER SYSTEMS

As described in Section 4.3, Water Quality, the City receives its raw water supply from the Colorado River via Imperial Irrigation District (IID) facilities, which is then treated at the City's Water Treatment Plant. IID's water service area contains seven cities (Brawley, Calexico, El Centro, Imperial, Holtville, Westmorland and Calipatria), three census-designated places (Niland, Seeley and Heber), the Naval Air Station El Centro, and two state prisons (Calipatria and Centinela).

Raw water from the IID is conveyed via the All-American Canal and Central Main Canal, then to the Dahlia Canal and Newside Canal, which run north-south through the western portion of the City. The IID's 2024 Integrated Resource Plan identifies issues of low flow throughout its waterway system expected through 2045 during dry years. Low flow may reduce or eliminate the ability to generate power from the IID's hydro turbines, limiting capacity for the region's electric capacity and creating broader implications for water and energy reliability in Imperial.

The City owns, operates, and maintains its own potable water distribution, wastewater collection, and water treatment service system through the City's Department of Public Services. In 2025, the City served 6,065 accounts, with approximately six percent located outside the City boundary, primarily in the Ironwood Subdivision immediately north of Worthington Drive (City of Imperial 2025a).

Treated water is stored at three reservoir locations:

- Water Treatment Plant, located at 201 B Street, just north of Runway 14/32 of the Imperial County Airport. To the north and west of the plant are rural residential and residential land uses. To the east is Ben Hilse Elementary School and residential land uses.
- City Shop, located at 701 E 14th Street. Adjacent land uses are industrial to the north, west, and south, and agricultural to the east.
- Northeast of the Aten Road and Cross Road intersection outside the boundaries of the City. While the immediate land use around the reservoir is agriculture, the residential subdivisions of Paseo Del Sol is located to the west and Victoria Ranch annexation is south.

The City's Water Master Plan (City of Imperial 2025b) was reviewed to evaluate service areas and the distribution system. The downtown/central grid (north of Imperial County Airport) has a dense network of water mains while

outlying subdivisions (e.g., southeast, northeast, southwest corners of the map) are also well-served. Eastern and southeastern areas such as the Victoria Ranch annexation area feature newer distribution systems designed for recent or anticipated growth, directly tied into the larger mains running along Aten Road and Cross Road. However, some peripheral neighborhoods rely on long stretches of single-feed mains (e.g., south of the airport and eastern annexations), making them more vulnerable to service disruptions. Additionally, parts of the system still use older asbestos cement (AC) mains, which are prone to failure and can affect both service reliability and water quality.

An analysis for the 2025 Service Area Plan identified a storage deficit of 0.9 million gallons per day (MGD). To address this, the City has planned eight near-term and eight long-term expansions and improvements to ensure sufficient storage capacity through ultimate buildout. Short-term projects, included in the City's Capital Improvement Budget (approved November 2024), focus on pipeline construction and tank rehabilitation, with completion scheduled between 2024 and 2026 (City of Imperial 2024).

5.1.1 Wastewater

The City's wastewater network consists of 63 miles of gravity sewers, 16 pumping stations, and six miles of force mains. Some isolated areas immediately outside the City are also served. Major roads, including Imperial and Worthington, are above trunk sewers that carry wastewater to the Imperial Water Pollution Control Plant (City of Imperial 2025a).

The treatment facility occupies approximately five acres and relies on open-air sewage lagoons. Surrounding land uses include residential neighborhoods to the north, additional housing across the railroad tracks to the west, agriculture to the east, and industrial uses to the south. The plant's current capacity of 2.4 million gallons per day (MGD) is projected to accommodate population growth to 41,525 people by 2042 (City of Imperial 2025a).

Three pump stations were identified in the 2025 Service Area Plan as inadequate in meeting current demand due to old age or City growth. A new sewer line installation on Aten Road and improvements to pump number one are planned to address this, but future improvements are needed for other pumps. The City's 2024 capital improvement budget included 12 wastewater-related projects, including sewer pipe installation and pipeline replacement slated for completion between 2025 and 2027 (City of Imperial 2024).

While the City's wastewater network serves the entire City, most of the residential areas in the sphere of influence rely on on-site water treatment systems including the neighborhoods east of Nance Road and north of Worthington Road (City of Imperial 2008). On-site water treatment systems, such as septic tanks, are permitted by the County and documented in the County's Local Agency Management Plan. The Ironwood Subdivision, located just outside City limits, is an example of an area that has water service but no sewer connection, relying instead on septic systems. Approximately 12 percent of households in the County are disconnected from City services and have their own on-site water treatment systems (ICPHD 2015). These households are primarily located in outlying areas or in rural agricultural areas outside of City boundaries.

In addition to the Imperial Water Pollution Control Plant, the El Centro Wastewater Treatment Plant, located just south of the City SOI near residential neighborhoods, is another significant wastewater facility in the region. Like many open-air lagoon systems, the El Centro plant has been associated with odor emissions that can drift into nearby communities. Because these facilities are located in proximity to residential areas, odors and related air quality impacts are considered an environmental justice issue.

5.2 STORMWATER DRAINAGE INFRASTRUCTURE

The City's primary drainage system is comprised of City-maintained surface ditches that convey storm water to open channel gravity flow drains managed by IID, which serves the entire Imperial Valley and portions of the Coachella Valley. All drainage infrastructure within City limits may be transferred to the City for management in the future as the IID has expressed disinterest in serving urbanized areas. The information presented in this section is sourced from the City's 2025 Service Area Plan unless stated otherwise.

Several open channel drains serve the City, including the North Central Drain, North Central Drain No. 2, Newside Drain No. 1PL, Dahlia Drain No. 8, Dolson Drain and the McCall Drain No. 5A and 5B. Geographically, these drainage channels are positioned to serve all areas of the city and either run through or along the edges of all residential areas. Most of the City is within 2,000 feet of a drainage canal. The channels were originally constructed for agricultural drainage and were not designed to convey storm water from the City's present urbanized environment. So as not to overwhelm the channels, newer developments in the City provide on-site retention basins which convey stormwater at a restricted flow using 12 inch pipes. Older neighborhoods that predate this standard may experience a higher risk of flooding from potentially overflowing drainage channels. Homes in areas adjacent to canals may be at higher risk of exposure to polluted runoff, flooding, and drowning hazards risks, highlighting the need for equitable maintenance and flood-prevention strategies.

The existing system provides adequate conveyance of storm events up to the 100-year storm, with only two recorded failures in the 1970s, both in localized low-lying areas. The City's flat topography, which slopes slightly downward to the north, generally helps convey water, though southern areas sit at somewhat higher elevations.

Flash floods are a natural phenomenon that occurs in the Imperial Valley. For much of the year, the region's climate is defined by dry arid desert heat but occasional monsoons and storms, such as Hurricane Hilary in 2023, originating from the moisture of the Gulf of California may cause flash flooding. The NOAA Storm Events Database (2025) tracks natural hazard events sourced from local agencies and members of the public. In the period between January 1, 2000 to May 31, 2025 there were 41 recorded flash flooding events in Imperial County. None were located directly within the City of Imperial, but nearby incidents occurred in:

- 2022, at the Highway 86 and I-8 interchange in El Centro to the south of the City
- 2023, along the New River to the west of the City
- 2023, on the campus of Imperial Valley College by the Highway 111 and Aten Road interchange to the east of the City.

Although the City of Imperial has not historically experienced recorded flash flood events, recent flooding incidents in surrounding communities demonstrate that the region is vulnerable to increasingly intense storm events linked to climate change. Because the City's drainage infrastructure was designed for agricultural purposes rather than urban stormwater management, extreme events could strain the system particularly in older neighborhoods without modern retention basins or homes located adjacent to open canals.

5.3 ROADWAY AND SIDEWALK CONDITIONS

The City's 2017 Circulation Element acknowledges that there is an incomplete network of improved roads in the City. Dead-end and unimproved road segments are scattered throughout the city, impeding circulation and limiting convenient access to arterial roads. Among the arterial roads, improvement status includes the following:

- Ralph Road west of State Route 86 remains unimproved. This road travels east-west in the far north area of the City, defining some portions of the northern City limits. The unimproved portion of the road presently serves agricultural land use. A future residential area, Morningstar subdivision, is expected to connect to the portion of Ralph Road that is currently unimproved (Lee Associates 2021).
- La Brucherie Road is improved only up to the City limits and is unimproved north of Larsen Road. The unimproved portion of the road presently serves agricultural land uses and there are no plans for residential development along the unimproved segment of the road at this time
- Neckel Road west of Morningside Drive in the northeastern area of the City was identified as unimproved in the 2017 Circulation Element. Through continuous capital improvement programs over the years, Neckel Road is now completely paved within the City limits and sphere of influence. The improvements to this road segment provide pedestrian access from the Sunrise Ranch subdivision to a residential area to the east of the railroad outside the City but within the sphere of influence. Various facilities such as churches and restaurants to the west of the railroad are now accessible to the residential area to the east of the railroad.

5.3.1 Sidewalk Network

The City maintains a network of sidewalks that provide access to important facilities such as schools and parks as shown in Figure 17; however, the network is incomplete. The County's 2022 Active Transportation Plan identifies 1.1 miles of missing sidewalks in the City. In total, 40 pedestrian improvements were identified, including crosswalk improvements, missing ADA curb ramps, and missing sidewalks. A majority of these proposed improvements were located in the downtown area south of 12th Street, west of L street, north of 4th Street, and east of F Street. In the 2017 Circulation Element, the northeastern area of the City, the Sunset Ranch Estates and Springfield subdivisions, were also identified as underserved in sidewalk access. While these areas do not contain schools or parks, the missing sidewalks occur at key connection points, limiting safe pedestrian access to facilities in other parts of the City.

In 2025, the City initiated a sidewalk inspection and maintenance program to identify defects and obstacles to accessibility on pedestrian walkways, and enforce the repair, replacement, and maintenance of them (City of Imperial 2025c). Common issues include: step separation, badly cracked or spalled concrete, settled areas that trap water, tree root damage, vegetation overgrowth, and other obstacles. Under the program, the Public Services Department inspects all public walkways on a five-year rotation, with a different zone evaluated each fiscal year, which begins with inspecting the north and northeast area of the City in the 2025/26 fiscal year, followed by the downtown area in 2026/27, the southeastern area in 2027/28, areas west of the airport in 2028/29, and areas south of the airport in 2029/30. If repairs are deemed necessary during inspection, the City notifies the adjacent property owner. Owners may either complete repairs themselves, hire a licensed contractor, or request the City to complete repairs at their expense.

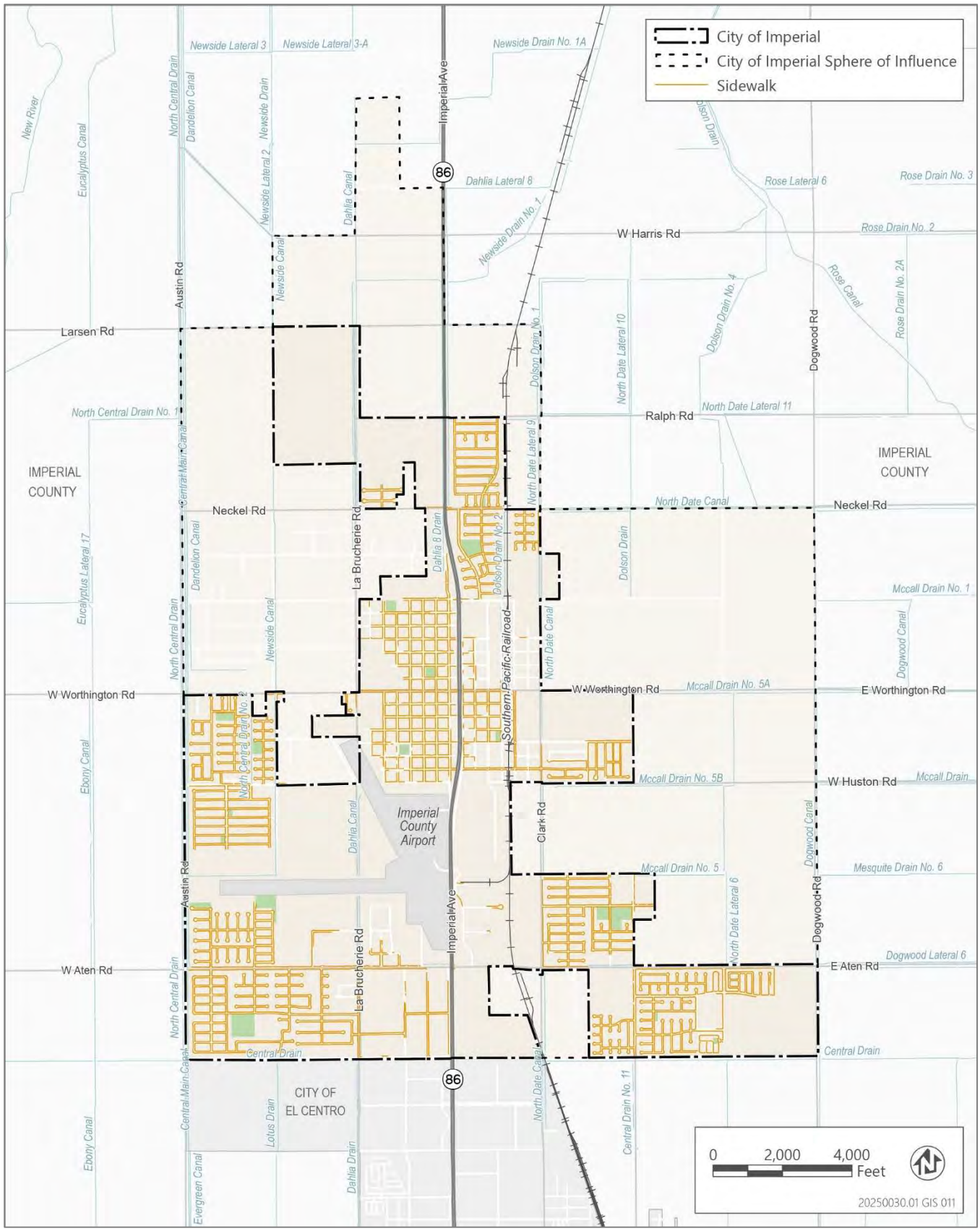
The City has also advanced several recent and planned projects aimed at expanding pedestrian access and improving safety. The City's 2024 capital improvement budget identified 15 community development infrastructure projects for funding, nearly one-third of which focused on pedestrian safety or sidewalk improvements (City of Imperial 2024). Key projects were:

- Aten Boulevard Class II Bike Path (completed December 2024),
- 7th Street Pedestrian Improvement project (completed January 2025)
- Aten Boulevard Street Rehabilitation project (completed March 2025)
- Aten Boulevard Sidewalk Progress Trail Phase 1 project (completed Feb 2025),
- Aten Boulevard Sidewalk Mrytle Road Phase 2 (set to complete in 2026), and
- Aten Boulevard Sidewalk SR 86 RR (set to complete in 2027).

These recent and planned projects reflect the City's ongoing efforts to improve connectivity and pedestrian safety, particularly along major corridors and at key access points such as Aten Boulevard and State Route 86.

5.4 INFRASTRUCTURE IN DISADVANTAGED UNINCORPORATED COMMUNITIES (SB 244 COMPLIANCE)

[Placeholder Text]



Source: Data provided by the City of Imperial; adapted by Ascent in 2025.

Figure 17 City of Imperial Sidewalk Network

6 FOOD ACCESS

The quality and availability of food influence residents' ability to obtain healthy and affordable meals and shape overall community well-being. The following sections examine the distribution of grocery stores, food bank services, restaurants, convenience stores, fast food outlets, and liquor stores to identify communities with limited or unhealthy food options. The information presented provides a snapshot of current food access conditions, highlighting where residents may face challenges in meeting daily nutritional needs.

Key takeaways from this section include:

- The City only has one grocery store, El Sol Market. Located in downtown, most neighborhoods are not within walking distance to El Sol Market and dependent on driving for access to fresh food.
- Larger grocery options, including Food 4 Less, Aldi, Walmart, Target, and Cardenas Market are located outside the City in El Centro, but within a 15 minute drive from most of the City.
- The Imperial Valley Food Bank, headquartered in the City, provides monthly food distribution at Padua Catholic Church in downtown and Imperial Gardens in the southern area of the City. Eligibility for services is based on income and age.

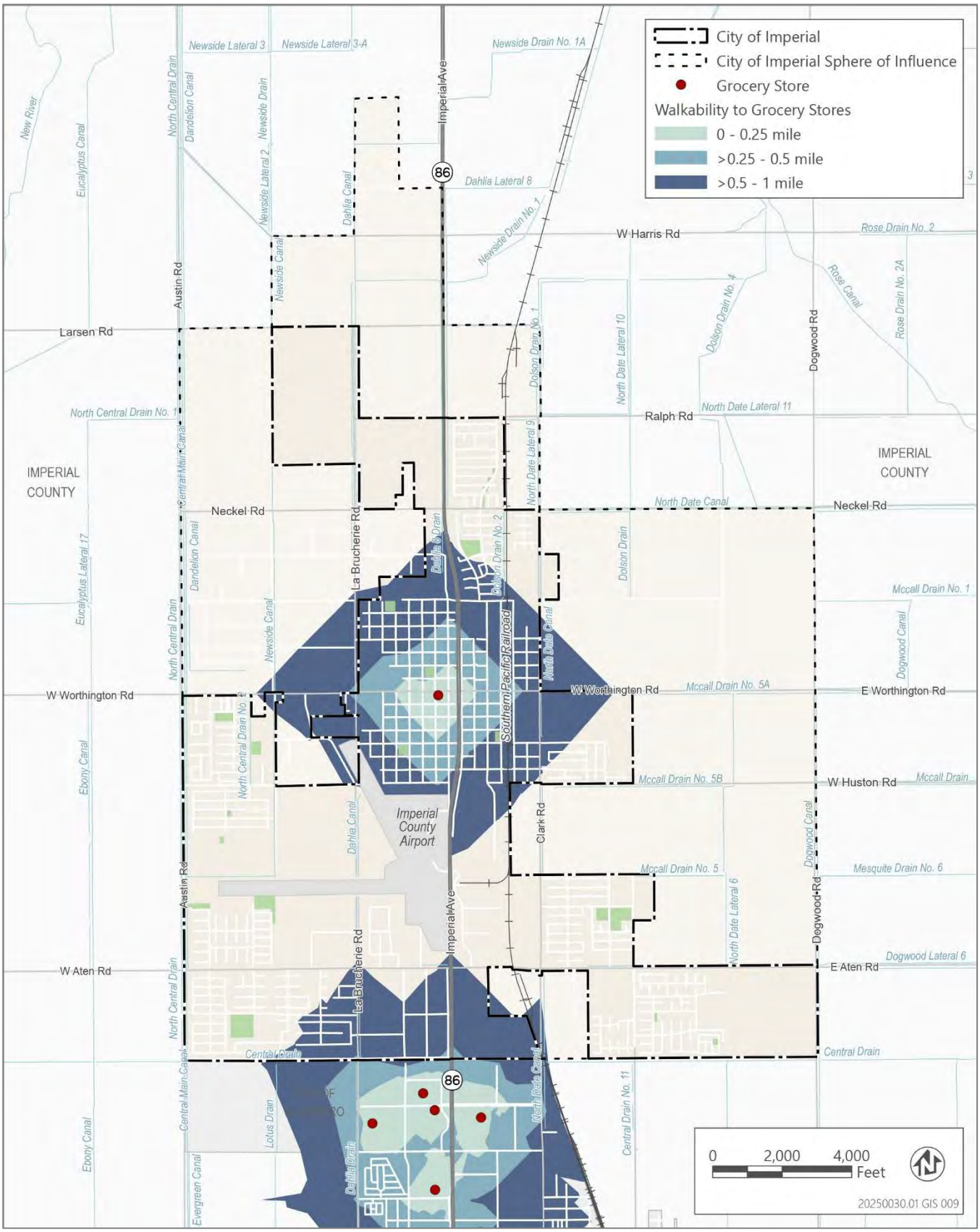
6.1 ACCESS TO GROCERY STORES

Grocery stores serve as critical anchors in communities by providing access to affordable and nutritious food, which directly shape residents' health and well-being. They also generate local jobs and attract economic activity, making them important contributors to neighborhood stability. In the context of environmental justice, the absence or limited availability of grocery stores highlights inequities in food access and reinforces broader health and economic disparities. Figure 18 maps the location of grocery stores in and near the City and the areas within walking distance to them.

There is only one grocery store within the City. El Sol Market is a grocery chain that operates locations throughout the Imperial Valley, with the Imperial location on 124 W Barioni Boulevard El Sol Market provides a variety of nutritional products, including baby foods, baked goods, fresh meats, fresh produce, medicine, and pet food (El Sol Market 2025). The market is in and serves the downtown area, with a one-mile walkshed around El Sol Market capturing all of downtown and a few blocks of the residential areas in the northeast of the City. Most of downtown is within a 0.5-mile walkshed of the market. Walksheds are generally a useful indicator of access because they measure whether residents can realistically reach healthy and affordable food options without relying on a cars. However, heat may make walking access to grocery stores infeasible during hotter months. While El Sol Market may not be within one mile walking distance to residential neighborhoods to the north and west of the City, the grocer is within a five-minute drive from these areas. A majority of households in Imperial have access to their private vehicle, which will be discussed in a later section.

The City of El Centro, directly south of the City, has several grocery stores in proximity to the City. These grocery stores include Food 4 Less, Aldi, Walmart, Target, and Cardenas Market. Cardenas Market specializes in providing ingredients for Mexican cuisine, which serves the cultural and dietary preferences of the nearly 84 percent of residents who identify as Mexican in the City. Portions of the City's southern residential areas are within a one-mile walkshed to these grocery stores. By car, these grocery stores are within a 10-minute drive of all residential areas in the southern areas of the City. The grocery stores in El Centro are larger and provide more variety in options compared to El Sol Market within the City. While the central and northern neighborhoods of the City are further from these stores, the entire City is still within a 15-minute drive to the grocery stores in El Centro.

There are no community gardens or farmers markets within the City or in adjacent jurisdictions to the City. The nearest farmers market is in Calexico, approximately 16 miles to the south (City of Calexico 2025).



Source: Adapted by Ascent in 2025.

Figure 18 Grocery Stores Accessible to the City of Imperial

6.2 LOCAL FOOD PROGRAMS

The Imperial Valley Food Bank serves the City and the rest of Imperial County. The Imperial Valley Food Bank is headquartered in the southern area of the City at 486 W Aten Road. Food is distributed throughout the County either through the Food Bank's mobile food pantry in remote locations or in partnership with various local churches or organizations in urbanized areas. Distribution occurs 1-2 times per month at each location, with the exact distribution schedule published on the Food Bank website (Imperial Valley Food Bank 2025). The website has resources in English and Spanish. Within the City, there are two food distribution locations:

- Imperial Gardens, a subsidized senior apartment complex located on 2385 Myrtle Road, serving the southern area of the City and residents who qualify for the Senior Food Program.
- Padua Catholic Church, located in the downtown area of the City at 210 W 7th Street, serving the central and northern areas of the City.

Households may receive Food Bank services if they prove residency in Imperial County, apply for a Food Bank ID card in-person at the W Aten Road location, and demonstrate that their household income does not exceed maximum income limits for the CA Health & Human Services Agency Emergency Food Assistance Program, which is roughly between Imperial County low income and very low income categories based on the County's 2025 area median income of $93,900 (HCD 2025). For a household of four, the annual income limit in 2025 is $75,552.50. Additionally, there is the Senior Food Program which is a federal program that provides monthly supplemental food packages to income-eligible senior citizens aged 60 and over. The Imperial Valley Food Bank administers this program and distributes USDA-provided food at several distribution sites every month in communities throughout Imperial County.

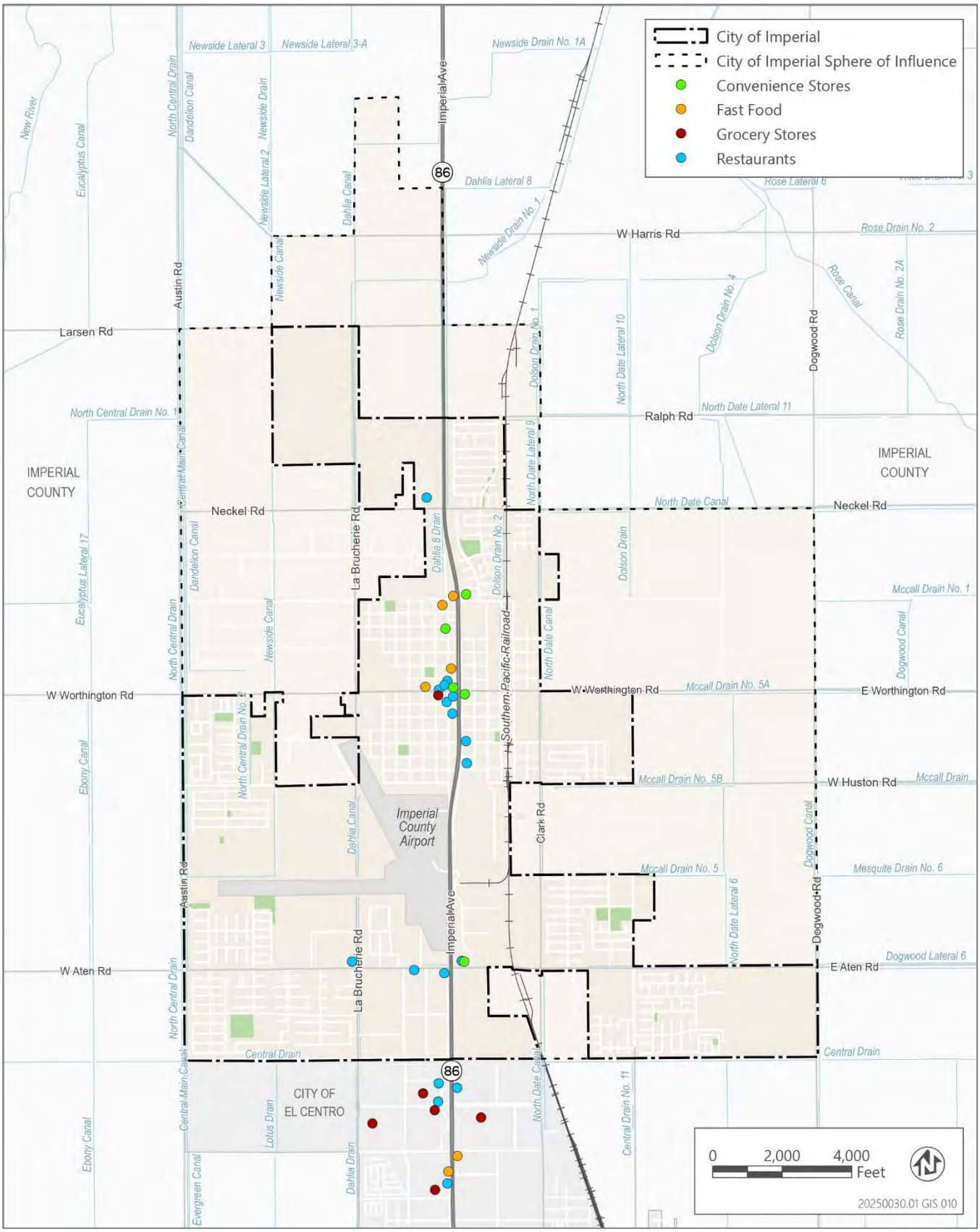
6.3 RESTAURANTS, CONVENIENCE STORES, AND FAST FOOD LOCATIONS

Restaurants, convenience stores, and fast food establishments offer prepared-food options that tend to be less fresh and less nutritious compared to grocery stores. Neighborhoods with few grocery stores but many prepared-food establishments encourage residents to rely on less nutritious meals out of geographic proximity. In such places, lower-income households are more likely to dine out due to convenience, contributing to less healthy lifestyles.

Figure 19 shows the distribution of various food service establishments within and near the city. Four main types of food establishments were identified:

- Convenience stores, which primarily sell packaged snacks, beverages, and limited ready-to-eat items. Fresh produce or full meals options are limited. Convenience stores in the City are typically part of gas stations.
- Fast food establishments, which provide quick, inexpensive prepared meals.
- Grocery stores, which supply the broadest selection of food items, including fresh, frozen, and packaged goods.
- Restaurants, which typically provide traditional sit-down table-service and offer a wider variety of menu options.

While it is important to note that residents may still have access to healthy food options since many of these places do offer healthier menu items, communities with ample grocery store access generally offer residents better opportunities to purchase a variety of fresh and nutritious foods, supporting healthier lifestyles. Ultimately, areas with access to grocery stores and diverse food establishments enable residents to choose between cooking at home and dining out more freely, fostering both nutritional health and flexibility in food choices. As shown in Figure 19, there is a large cluster of food service establishments near the intersection of Imperial Avenue and West Worthington Road. This area contains several restaurants, two fast food establishments, two convenience stores, and the singular grocery store in the city. There is a smaller cluster of fast food and convenience stores to the north of the city near the intersection of Imperial Avenue and 15th Avenue. Several restaurants are located along Imperial Avenue stretching southward through El Centro. In the southern area of the city, there are four restaurants and one convenience store along La Brucherie Road and Imperial Avenue. Just south of the City limits in El Centro, there are several grocery stores, restaurants, and fast food establishments primarily along Imperial Avenue.



Source: Adapted by Ascent in 2025.

Figure 19 Food Establishments Accessible to the City of Imperial

7 ACCESS TO PARKS, OPEN SPACE, AND PHYSICAL ACTIVITY

This section examines access to parks, open space, and active transportation systems in the City, including public transit availability, walking and bicycling patterns, and recreational amenities. These resources shape residents' opportunities for physical activity, social interaction, and mobility, while also supporting healthier lifestyles and reducing reliance on automobiles. Examining these conditions helps identify inequities in access and ensures that environmental justice strategies address both environmental risks and the distribution of community assets.

Key takeaways from this section include:

- Most neighborhoods are within a 15-minute walk to a park, but some subsidized housing sites and new northern developments remain underserved.
- The City is primarily car-dependent with no residents recorded as using public transit. Despite low transit use, 68 percent of jobs and 49 percent of workers are within half a mile of a bus stop, though areas west of the airport and northern areas lack service.
- The City has just 0.8 miles of bike facilities, made up exclusively by the Imperial Valley College Bike Path along Aten Road. The bike path has few connections to other neighborhoods and has incomplete improvements.

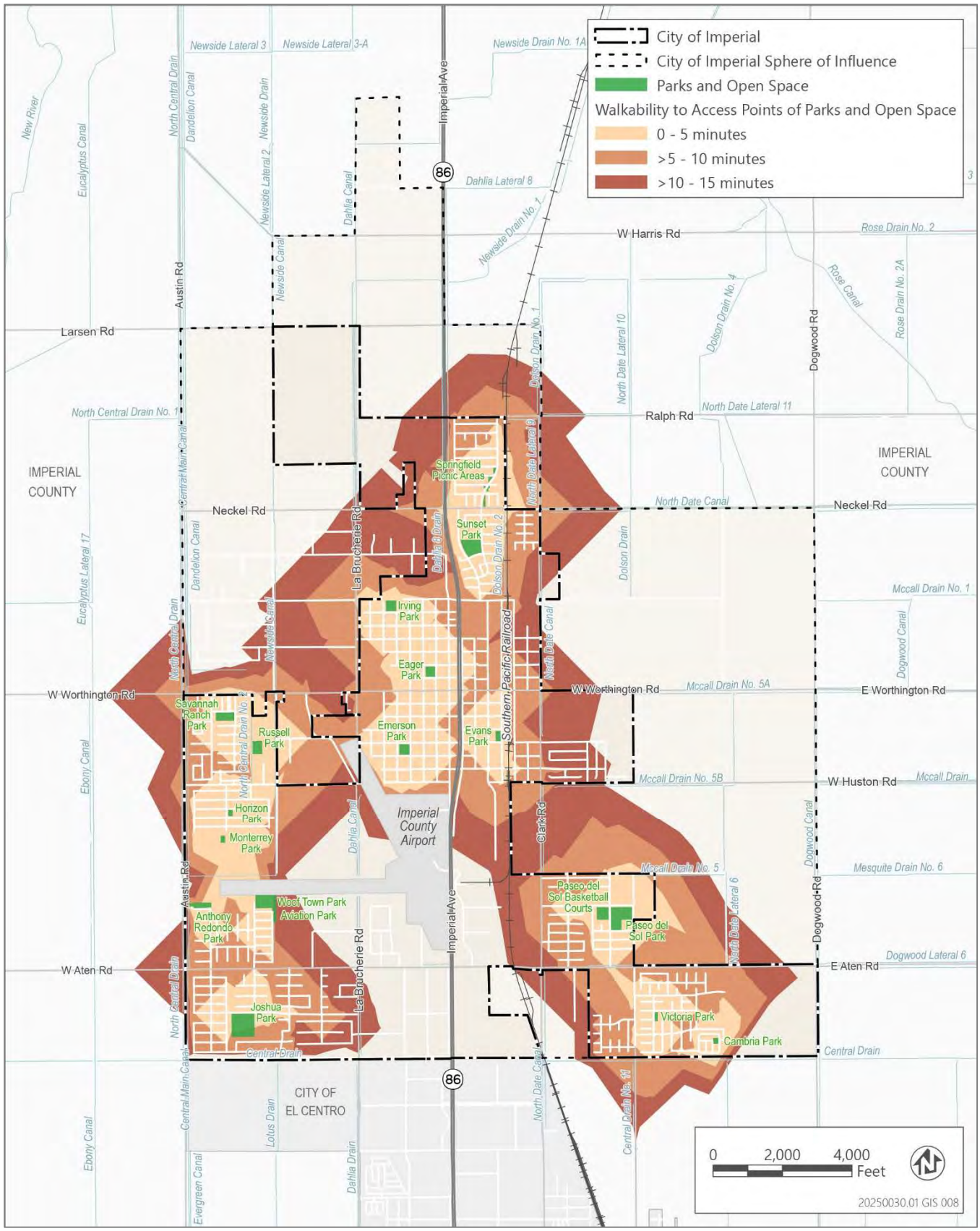
7.1 PARKS AND OPEN SPACE ACCESS

Access to parks, recreation centers, open spaces, and other safe places for activity strongly influences how often residents engage in physical exercise. Facilities that are well-maintained, safe, and offer supportive programs such as childcare, or education services promote active lifestyles and broader health benefits.

The City currently falls short of its park and open space goal of 3.0 acres per 1,000 population, with 58.26 acres available compared to the 63.4 acres needed to serve the 2024 population of 21,141 (City of Imperial 2025a). The current deficiency of 5.14 acres is projected to increase. By 2030, the projected population of 26,774 will require 80.3 acres of parkland, leaving a shortfall of 16.92 acres if no new facilities are added. A proposed regional park and equestrian center in the northern edge of the City is expected to add over 100 acres of recreational space (City of Imperial 2015).

While the City has a shortfall of parkland acreage, most of the City is geographically accessible to parkland. Figure 20 illustrates that a large majority of the city is within a 15 minute walk of a park entrance. Park entrances were identified as an intersection between a park walkway and sidewalk and walkability is measured in terms of time: areas shaded in yellow are within a zero to five minute walk to a park, areas shaded in orange are within a five to 10 minute walk to a park, and areas shaded in red are within a 10 to 15 minute walk to a park. Parks are well distributed in the City, with every residential area containing at least one park. There are a few exceptions, however. Imperial Gardens and Villa Lara Apartments, which provide subsidized housing for seniors and families, are located outside the catchment area of any park. In the far north of the city are new residential developments north of Neckel Road currently unserved by any parks within walking distance. However, the City's proposed regional park and equestrian center will be located directly adjacent to the neighborhood, providing future recreational opportunity.

Notably, for the City, measuring access to parks in terms of walkability may be an impractical measure during some months of the year. Summer heat in the City presents a significant barrier to outdoor recreation, as extreme temperatures can make it uncomfortable, and even unsafe, for residents to walk to parks or participate in outdoor activities. The City provides a Cool Center and Hydration Station at the Imperial Public Library that are open to the public. Cool Centers offer air-conditioned spaces for relief from extreme heat, while Hydration Stations provide free drinking water to help prevent dehydration. (City of Imperial 2025d). The City also operates the Imperial Pool that offers aquatic-based programming and provides a place for people to cool down when it is hot. While these programs expand recreational opportunities during peak heat, participation often requires a fee, which may limit access for lower-income households and reduce their ability to benefit from these resources.



Source: Data provided by the City of Imperial. Adapted by Ascent in 2025.

Figure 20 Accessibility of Parks in the City of Imperial

7.2 ACCESS TO PUBLIC TRANSIT AND ACTIVE TRANSPORTATION PATTERNS

Using public transit and active transportation modes such as walking or biking promotes healthier lifestyles by encouraging physical activity and reducing air pollution from vehicle emissions. Active modes of travel, such as walking or biking, increase physical activity, reduce vehicle emissions, and offer vital mobility for those without cars. Active transportation is also linked to improved mental health by lowering stress and fostering social interaction. Both automobile access and active commuting are indicators of a community with healthier transportation options. A balanced approach that includes both ensures residents have the flexibility to choose the most suitable mode of transportation while promoting sustainability and public health.

7.2.1 Commuting Patterns

Table 30 breaks down the means of transportation to work for the civilian employed population 16 years old and over. A vast majority of workers use a car, truck, or van to commute. In the City, 75 percent drive alone in a private vehicle and 12 percent carpool. Compared to the State, there is a higher share of workers who commute alone in a private vehicle than the State (67 percent) but less than the County (79 percent). The City has a higher share of carpool commuters at 12 percent compared to the County (10 percent) and State (10 percent). Three percent of City workers commuted by walking, which is comparable to the County (three percent) and State (two percent). No public transportation or other mode of commuters was recorded to exist in the City, which is a lower share than the County (less than one percent commute by public transportation and two percent commute by other means) and the State (three percent commute by public transportation and two percent commute by other means). The remaining working population worked from, comprising nine percent of the City, which is higher than the County (six percent) but lower than the State (16 percent).

The California Healthy Places Index 3.0 (2022) compares the active commuting patterns of census tracts across California. Census tracts 110.00 and 112.01 each have approximately one percent active commuting, which sits at the tenth percentile compared to all census tracts in California.

Table 30 Means of Transportation to Work (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Car, truck, or van – drove alone	5,598	75%	47,272	79%	12,294,684	67%
Car, truck, or van – carpool	922	12%	5,745	10%	1,738,770	10%
Public transportation	0	0%	283	<1%	593,434	3%
Walked	231	3%	1,663	3%	436,223	2%
Other	0	0%	1,285	2%	435,025	2%
Worked from home	705	9%	3,901	6%	2,832,962	16%
Total	7,456	100%	60,149	100%	18,331,098	100%

Notes: Based on civilian employed population 16 years and over.

Source: American Community Survey 2023 Five-Year Estimates, Table B08301.

Longer commute distances reduce the practicality of active transportation, prompting greater reliance on driving and fewer chances for daily exercise. As shown in Table 31 below, commutes in the City are short relative to the County and State. Over 80 percent of commuters in the City travel less than 30 minutes, with 41 percent less than 15 minutes and 41 percent between 15 and 29 minutes. There is a higher share of commuters that travel less than 30 minutes in the City than the County (37 percent of commuters less than 15 minutes and 29 percent of commuters 15 to 29 minutes) and State (22 percent less than 15 minutes and 36 percent 15 to 29 minutes). Compared to the County and State, there are fewer commuters in the City travelling 30 to 59 minutes (16 percent in the City compared to 18

percent in the County and 31 percent in the State) and 60 minutes or over (two percent in the City compared to six percent in the County and 12 percent in the State).

Table 31 Means of Transportation to Work (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Less than 15 minutes	2,769	41%	20,566	37%	3,385,909	22%
15 to 29 minutes	2,763	41%	21,978	39%	5,579,752	36%
30 to 59 minutes	1,102	16%	10,403	18%	4,743,052	31%
60 minutes or over	117	2%	3,301	6%	1,789,423	12%
Total	6,751	100%	56,248	100%	15,498,136	100%

Notes: Based on civilian employed population 16 years and over who did not work from home.

Source: American Community Survey 2023 Five-Year Estimates, Table B08303.

Although there are currently no transit commuters in the City, transit connectivity to regional job centers do exist. Nearly 11,000 workers in the City are within a 30-minute transit commute to an employer, 68 percent of jobs in the City are located within half a mile of transit, and 49 percent of workers live within half a mile of transit (AllTransit 2025).

7.2.2 Public Transit

Public transit helps reduce reliance on cars, which lowers air pollution and greenhouse gas emissions in vulnerable communities. It also expands access to jobs, education, health care, and cultural opportunities for residents who may not own vehicles, fostering greater economic mobility and social inclusion. In addition, active commuting tied to transit use promotes healthier lifestyles through increased physical activity and reduced transportation costs. The City is served by Imperial Valley Transit (IVT), which operates four bus routes through the City: Routes 2, 3, 41 and the Green Line (Imperial County Transportation Commission 2019). Route 2 runs north-south, has a weekday peak frequency of approximately once per hour, and connects the City with Niland, Brawley and El Centro. Route 3 runs east-west connecting the City with El Centro and Holtville, and has a weekday peak frequency of approximately once every two hours. Route 41 is an express service connecting Brawley with El Centro once per day.

There are 10 total bus stops in the City (Imperial County Transportation Commission 2022). Bus stops are clustered downtown and along Aten Road in the south. Most residential areas in the southwest and central areas of the City are within a 0.5 radius of a bus stop. However, residential to the west of the airport and north of Short Road are underserved and far from bus service. No high quality transit corridors have been identified in the City (SCAG 2024).

The four bus stops located downtown include:

- Two stops near the intersection of Worthington Road and North Imperial Avenue, which is adjacent to commercial land use and near residential areas with a variety of densities.
- Two stops near the intersection of East Barioni Boulevard and South K Street, which is adjacent to residential, commercial, and industrial land uses.

Stops located in the southern area include:

- Two stops near the intersection of West Aten Road and La Brucherie Road. This stop is immediately surrounded by commercial land use and serves key destinations such as the Imperial Valley Food Bank and the Imperial Immigration Court.
- One stop along Myrtle Road adjacent to Imperial Garden Apartments and Villa Lara Apartments, which provide subsidized housing for seniors and families. Imperial Garden Apartments is also a food bank distribution site. Other land uses surrounding the stop include commercial to the north and east.

- One stop near the intersection of Joshua Tree Street and Bouganvillea Street. This stop is immediately surrounded by low medium density residential. Nearby destinations include TL Waggoner Elementary School and Joshua Tree Park which has a playground, gazebo, restroom, basketball, and baseball facilities.
- One stop located along Preble Road adjacent to a movie theater. This stop is adjacent to commercial land uses.
- One stop near the intersection of W Aten Road and Clark Road. This stop is adjacent to low medium residential, commercial, and industrial land uses.

Paratransit service ensures that seniors, people with disabilities, and others with limited mobility have equitable access to essential services and opportunities. By filling gaps where fixed-route transit is not feasible, paratransit reduces social and economic isolation for vulnerable populations. IVT provides paratransit service, IVT Access, to disadvantaged populations across the County, including seniors 65 years or older and persons with a disability (Imperial County Transportation Commission 2024). Other disadvantaged populations in the County include zero vehicle households, persons with limited English proficiency, low-income households, and youth under 18 years old. Compared to other cities in the County, the City does not have higher concentrations of transportation disadvantaged individuals living in areas with limited transit services. All of the City is classified as having low transit dependency according to the Imperial County Transportation Commission 2024 Long Range Transportation Plan.

7.2.3 Bicycle Facilities

Safe and connected bike infrastructure expands access to jobs, schools, and services, while reducing exposure to air pollution from vehicle traffic. There are 0.8 miles of bike facilities in the City, all of which are located along Aten Road as part of a Class I multi-use path that connects the City to Imperial Valley College (City of Imperial 2017). The Imperial College Bike Path begins near Clark Road and Aten Road and alternates between paved and unimproved sections as it continues east. Some segments are supported by on-street Class II lanes and Class III sharrows, but connections to the rest of the City are limited. Adjacent land uses are primarily residential, light industrial, and agricultural. Minimal bike infrastructure exists to feed cyclists into the Imperial Valley College Bike Path from other parts of the City and most major arterials lack cycling facilities (City of Imperial 2017).

8 SAFE AND SANITARY HOUSING

The condition, quality, and affordability of housing can indicate the health, safety, and well-being of residents in the City of Imperial in an environmental justice context. Numerous factors such as hazardous building materials, exposure to excessive heat or cold, poor air quality and filtration, and excessive moisture or mold from inadequate building maintenance can lead to severe and negative health outcomes. Furthermore, the geographic relationship of affordable family-supporting housing in relation to community amenities as well as environmental health hazards is an important component of environmental justice, fair housing choice, and the overall commitment to affirmatively further fair housing throughout the region.

Key takeaways from this section include:

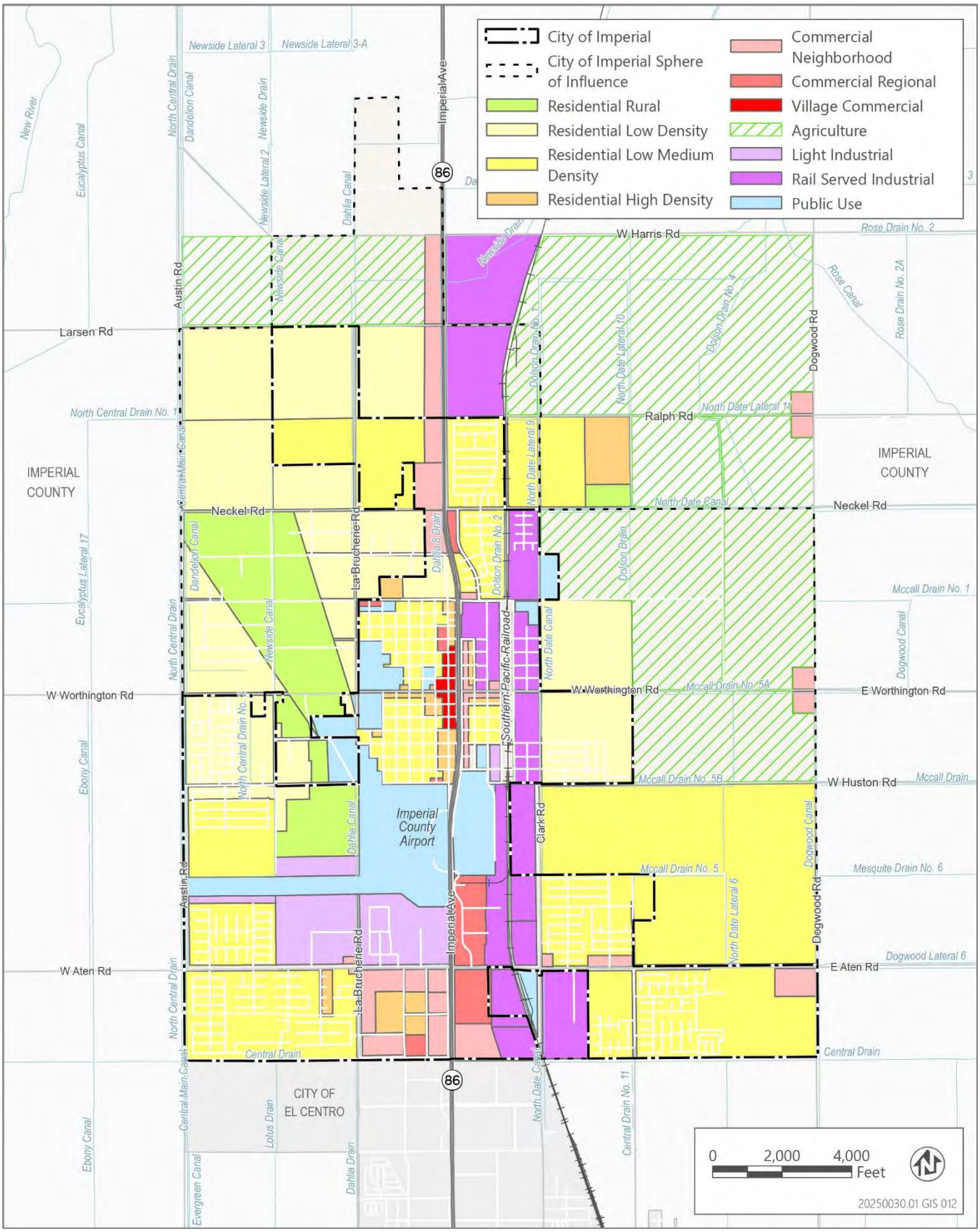
- Most housing in the City is designated Low and Low Medium Density Residential in the general plan, with High Density Residential limited to small pockets in and around downtown and select corridors.
- The centrally located Imperial County Airport influences land use across much of the City, with many high- and low-medium density residential areas falling within noise- and emissions-affected zones,
- The City's housing stock is newer than the County and State, though nearly half are over 30 years old.
- Subsidized housing has increased in the 2020s, accounting for over half of all subsidized units in the City once current projects are completed. About 64 percent of subsidized housing will be for families and 36 percent will be for seniors.
- Renters face greater housing stress than owners: 42 percent of renters are cost burdened or severely cost burdened, compared to 22 percent of owners.
- Low and moderate-income neighborhoods are concentrated along Highway 86, with higher concentrations of Housing Choice Vouchers south of Aten Road and in western and central areas of the City.

8.1 HOUSING DENSITY, DISTRIBUTION, AND LAND USE COMPATIBILITY

Decisions regarding land use have a direct and profound impact on the location of housing relative to jobs, schools, transportation, and environmental conditions—such as proximity to pollution sources or natural hazards. Overall, the City's land use patterns are characterized by large areas of Low and Low Medium Density Residential designations, with High Density Residential limited to small pockets in and around downtown and select corridors, are shown in Figure 21. This predominance of lower-density zoning reduces opportunities for multifamily housing, concentrating new development in tract-style subdivisions.

East of Highway 86 between Ralph Road to the north and 15th Street to the south, the area is designated entirely Low Medium Density Residential. West of Highway 86, downtown Imperial contains a mix of densities, including Rural Residential, Low Density Residential, Low Medium Density Residential, and High Density Residential. However, most of the area is zoned Low or Low Medium Density Residential with High Density Residential concentrated in the center along Barioni Boulevard and Highway 86. Areas designated Rural Residential are influenced by density limitations associated with the Imperial County Airport.

Another large residential cluster is located east of Austin Road between Imperial County Airport to the north and Treshill Road to the south. This area is almost entirely Low Medium Density Residential, except for a corridor along Blazing Star Trail and areas within the Crown Commercial Specific Plan to the east which contains High Density Residential. A fourth cluster is located along Aten Road east of Clark Road, where land use designations are uniformly Low Medium Density Residential.



Source: Data provided by the City of Imperial; adapted by Ascent in 2025.

Figure 21 City of Imperial Land Use

8.1.1 Airport-Land Use Compatibility

Airports can create localized environmental and health stressors, including heightened noise and emissions that may fall unevenly on surrounding neighborhoods. Assessing these conditions is important to understand whether nearby communities face a disproportionate share of such impacts.

The Imperial County Airport is located southwest of the City center and is primarily used for general aviation activities. The Imperial County Airport Land Use Compatibility Plan (ALUCP), last updated in 1996, establishes policies to minimize conflicts between airport operations and surrounding land uses. The County is currently preparing an updated ALUCP.

The compatibility zones around the airport restrict residential densities based on expected noise and safety impacts. In the immediate approach and departure zones, residential uses are effectively prohibited or limited to low densities. Surrounding corridors allow only one dwelling unit per acre, while the broader downtown area falls within a zone that permits up to six units per acre but requires noise mitigation and overflight easements.

Because the airport is centrally located, its compatibility zones encompass a significant share of the City's land. About half of the designated High Density Residential areas fall within Zones C and D, where aircraft overflights, noise, and emissions are common. Most Low Medium Density Residential areas are also located in these zones, along with some Low Density Residential neighborhoods to the north. In contrast, the northern portions of Zones B1 and B2 are limited to Rural Residential uses, reflecting the strictest development constraints. Overall, the airport influences where housing can be located across much of the city, exposing many residents to both elevated noise and air pollutants.

8.1.2 Location of Subsidized Housing

Subsidized housing refers to housing that rents for less than the market rate due to a direct financial contribution from the government. Examining the location, age, and target populations of subsidized housing helps reveal whether affordable housing is equitably distributed and aligned with community needs.

There are six existing subsidized housing projects in the City, as outlined in Table 32, and two under construction. Some of these projects were identified in the City's 2021-2029 Housing Element, including Imperial Villa Apartments, Imperial Garden Apartments, Villa Lara Apartments, and La Palmeras (which offers housing for farmworkers). Two projects were completed in 2023 (Worthington La Luna Family Apartments and Worthington Del Sol Family Apartments). Another two projects are under construction, with the La Brucherie Apartments estimated to be completed in 2025. The Imperial Villa Apartments were identified as at risk of conversion to market rate housing in the Housing Element, due to an affordability covenant expiring in 2029, while the remaining projects have affordability terms extending between 2056 and 2075.The geographic distribution of these projects is varied and located across the City.

In the City, funding programs for subsidized housing come from a combination of Low-Income Housing Tax Credits (LIHTC), U.S. Department of Agriculture (USDA) loans and grants, and HCD loans and grants. In terms of funding, LIHTC funds most projects except for two. HCD funding programs have supported two projects and USDA funding programs have supported another two projects.

Including projects currently under construction, a majority of subsidized housing units were built in the 2020s (52 percent), as shown in Figure 22. About a third was built in the 2000s (30 percent), ten percent were built in the 2010s, and eight percent were built in the 1970s.

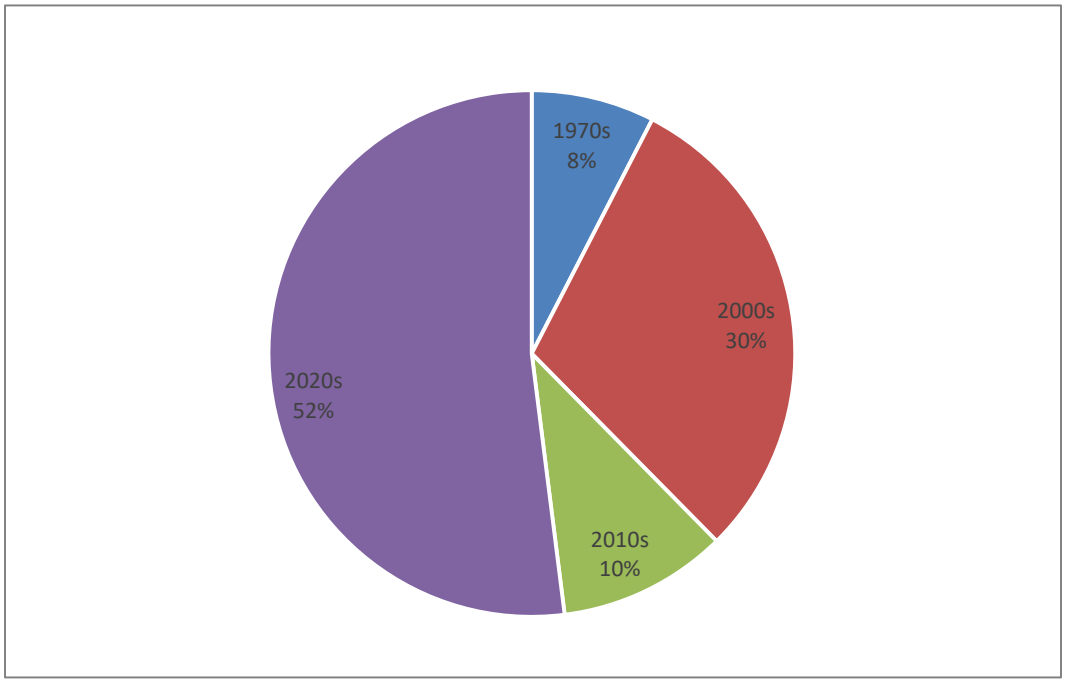
Including the projects under construction, the City will have 529 total subsidized affordable housing units. These units are a mix of senior (36 percent) and family housing (64 percent), as shown in Figure 23.

Table 32 Subsidized Housing in the City of Imperial (2023)

Name	Address	Status	Type	Monthly Rent	Affordable Units	Funding Program	Placed in Service	Affordability End Year
Imperial Villa Apartments	210 West Barioni Blvd	Existing	Senior	$1,130	40	USDA	1977	2029
Villa Lara Apartments	2372 Myrtle Road	Existing	Family	$720	79	LIHTC	2002	2056
Imperial Gardens Apartments	2375 Myrtle Road	Existing	Senior	$410	80	LIHTC; HCD	2004	2058
Las Palmeras	470 Wall Road	Existing	Family	$660	55	LIHTC; USDA	2015	2068
Worthington La Luna Family Apartments	605 W Worthington Road	Existing	Family	$630	65	LIHTC	2023	2074
Worthington Del Sol Family Apartments	605 W Worthington Road	Existing	Family	$710	47	LIHTC	2023	2075
La Brucherie Apartments	La Brucherie Rd & W 12th Street	Under Construction	Family	$590	95	LIHTC	2025 (est.)	Unknown
Imperial Senior Housing	307-321 N Imperial Ave	Under Construction	Senior	Unknown	68	HCD	Unknown	Unknown
Total					529			

Notes: Year placed in service may be estimates.

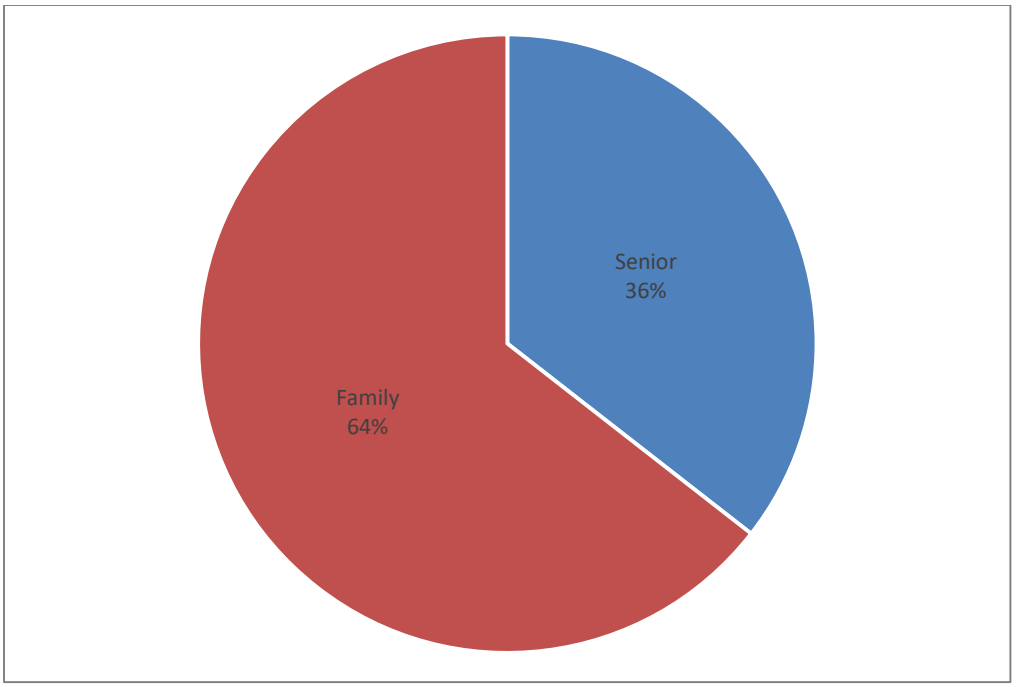
Source: CHPC 2023.



Notes: Includes units under construction.

Source: CHPC 2023.

Figure 22 Year Subsidized Housing Units Placed in Service



Notes: Includes units under construction.

Source: CHPC 2023.

Figure 23 Type of Subsidized Housing

8.1.3 Location of Public Housing

The U.S. Department of Housing and Urban Development administers federal aid to the Imperial Valley Housing Authority to manage housing for low-income residents at affordable rents, called public housing. Residents of public housing may face disproportionate exposure to environmental, or infrastructure burdens based on the location of the development. With 12 total affordable units, Orangewood Homes is the only public housing development in the City, as shown in **Table 33**. Orangewood homes is located southwest of South D Street and West 5th Street and comprised of six duplexes with shared yards, walkways, and community facilities. The development was constructed in 1981 and is managed by the Imperial Valley Housing Authority. Orangewood Homes is located in the western edge of downtown and is just south Ben Hulse Elementary School. Like the surrounding neighborhood, Orangewood Homes is located in the Zone C impact area of the airport, frequent noise intrusion is expected due to the proximity to the airport.

Table 33 Public Housing (2023)

Name	Address	Building Type	Constructed Year	Total Units	Management
Orangewood Homes	441 S D St	Semi-detached	1981	2	Imperial Valley Housing Authority
Orangewood Homes	461 S D St	Semi-detached	1981	2	Imperial Valley Housing Authority
Orangewood Homes	612 W 5th St	Semi-detached	1981	2	Imperial Valley Housing Authority
Orangewood Homes	636 W 5th St	Semi-detached	1981	2	Imperial Valley Housing Authority
Orangewood Homes	662 W 5th St	Semi-detached	1981	2	Imperial Valley Housing Authority
Orangewood Homes	684 W 5th St	Semi-detached	1981	2	Imperial Valley Housing Authority
Total				12	

Notes: Year placed in service may be estimates.

Source: CHPC 2023.

8.2 HOUSING CONDITIONS

Occupied housing units account for 88 percent of all housing units in the city, as shown in **Table 34**. The share of occupied housing units in the City sits between the County and State, which the County having a lower share (85 percent) and State a higher share (92 percent).

Table 34 Housing Occupancy (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Occupied housing units	6,020	88%	48,844	85%	13,434,847	92%
Vacant housing units	856	12%	8,667	15%	1,097,836	8%
Total housing units	6,876	100%	57,511	100%	14,532,683	100%

Source: American Community Survey 2023 (Five-Year Estimates), Table DP04.

8.2.1 Housing Unit Characteristics

The variety of housing units by structure type reveals the availability of different housing options in a community. This data can assess whether residents have access to appropriate housing types and evaluate if a balanced mix of housing type exists that supports a variety of residents, such as renters, seniors, and other vulnerable groups. As shown in **Table 35**, structures with one unit account for 76 percent of all structures in the City (74 percent are one-unit detached and 2 percent are one-unit attached). Across the County and State, one-unit structures account for most structures but at a lower share (65 percent at the County level and 64 percent at the State level). Multi-unit structures (5-9 units) account for the next highest share of structures in the City at nine percent. Structures of 20 units or more account five percent of all structures in the City, which is slightly higher than the County (four percent) and more than half the State (13 percent). Following this are two units (three percent), three or four units (three percent), and 10 to 19 units structures (one percent). Except for two units, the share of these structures in the City are generally lower than that of the County and State.

Table 35 Units in Structure (2023)

Housing Unit Type	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
1-unit, detached	5,069	74%	35,818	62%	8,315,954	57%
1-unit, attached	128	2%	1,454	3%	1,061,574	7%
2 units	219	3%	1,602	3%	342,430	2%
3 or 4 units	194	3%	4,231	7%	782,419	5%
5 to 9 units	653	9%	4,267	7%	832,491	6%
10 to 19 units	96	1%	2,161	4%	717,369	5%
20 or more units	314	5%	2,498	4%	1,946,659	13%
Mobile home	203	3%	5,204	9%	515,402	4%
Boat, RV, van, etc.	0	0%	276	0%	18,385	0%
Total housing units	6,876	100%	57,511	100%	14,532,683	100%

Source: American Community Survey 2023 (Five-Year Estimates), Table DP04.

Examining the number of bedrooms, household size, and overcrowding helps assess whether the housing stock matches the needs of local families. These measures reveal if larger households, often lower-income or multigenerational, are forced into inadequate space, creating health and safety risks that disproportionately affect vulnerable populations. As shown in **Table 36**, household sizes in the City tend to be larger than the State with 4-or-more-person households accounting for the largest share in household sizes for both owner occupied (38 percent in the City vs 30 percent in the State) and renter households (33 percent in the City vs 26 percent in the State). The

share of housing with four or more bedrooms accounts only 31 percent of the City's housing stock, while 4-or-more-person households account for 37 percent of all households in the City.

Table 36 Number of Rooms (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
No bedroom	273	4%	2,126	4%	699,519	5%
1 bedroom	495	7%	7,136	12%	1,931,399	13%
2 bedrooms	1,146	17%	13,166	23%	3,916,669	27%
3 bedrooms	2,869	42%	21,418	37%	4,789,016	33%
4 bedrooms	1,823	27%	11,514	20%	2,549,516	18%
5 or more bedrooms	270	4%	2,151	4%	646,564	4%
Total	6,876	100%	57,511	100%	14,532,683	100%

Source: American Community Survey 2023 (Five-Year Estimates), Table DP04.

8.2.2 Household Sizes

Table 37 illustrates common household sizes in the City. In terms of owner-occupied households, four-person households make up the largest share in the City. Two-person households account for the next largest share at 27 percent of the City, which is less than the County (30 percent) and State (33 percent). Three-person households account for 18 percent of the City, which is slightly higher than the County (16 percent) and State (17 percent). There is a higher share of one-person households in the City (17 percent) compared to the County (13 percent), but less than the State (20 percent).

In terms of renter occupied households, one-person and four-person households make up the largest share in the City at 33 percent each. The City has a higher share of one-person households compared to the County (28 percent) and State (30 percent), but a lower share of four-person households compared to the County (34 percent) and higher share than the State (26 percent). Three-person households make up the next largest share at 18 percent of the City, which is a slightly higher share than the County (17 percent) and State (16 percent). Two-person households make up the smallest rental household share in the City at 15 percent, which is a share lower than the County (21 percent) and State (28 percent).

Table 37 Household Sizes by Tenure (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Owner occupied						
1-person household	663	17%	3,554	13%	1,494,278	20%
2-person household	1,050	27%	8,449	30%	2,563,518	33%
3-person household	715	18%	4,567	16%	1,316,939	17%
4-or-more-person household	1,516	38%	11,541	41%	2,283,723	30%
Total	3,944	100%	28,111	100%	7,658,458	100%
Renter occupied						
1-person household	693	33%	5,963	28%	1,783,432	30%
2-person household	314	15%	4,349	21%	1,637,789	28%
3-person household	378	18%	3,530	17%	948,486	16%
4-or-more-person household	691	33%	7,270	34%	1,570,329	26%
Total	2,076	100%	21,112	100%	5,940,036	100%

Source: American Community Survey 2023 (Five-Year Estimates), Table S2501.

8.2.3 Overcrowding

Overcrowding was identified as a topic of special concern in the City of Imperial 2021-2029 Housing Element due to the City's high share of larger households. Table 38 illustrates most recently available data for overcrowding in the City based on the rate of people per room in a household. "Overcrowded" is defined as over one person occupying a room and "severely overcrowded" is defined as over 1.5 persons occupying a room.

In the 2021-2029 Housing Element, approximately seven percent of owner-occupied households were considered overcrowded and approximately three percent were considered severely overcrowded, based on 2018 data. Since then, the share of owner-occupied overcrowded households has decreased, but the share of owner-occupied severely overcrowded households has increased slightly. As shown in Table 38, four percent of owner-occupied households were overcrowded and four percent were severely overcrowded in 2023.

In 2018, approximately six percent of renter households in the City were overcrowded and approximately two percent were severely overcrowded. Since then, the share of overcrowded renter-occupied households has doubled and renter-occupied severely overcrowded households has increased slightly. In 2023, the share of overcrowded renter-occupied households in the City was 14 percent and severely overcrowded households was three percent.

Comparing across geographies, the City generally has less owner-occupied overcrowding than the County (five percent), but more than the State (three percent), more severe overcrowding than the County (two percent) and State (one percent). The City has a higher share of renter-occupied overcrowding than the County (ten percent) and State (seven percent), but less severe overcrowding than the County (five percent) and State (six percent).

Table 38 Occupants per Room (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Owner occupied						
1.00 or less occupants per room	3,632	92%	25,983	94%	7,163,380	96%
1.01 to 1.50 occupants per room	165	4%	1,274	5%	242,528	3%
1.51 or more occupants per room	147	4%	475	2%	62,758	1%
Total	3,944	100%	27,732	100%	7,468,666	100%
Renter occupied						
1.00 or less occupants per room	1,735	84%	18,090	86%	5,163,895	87%
1.01 to 1.50 occupants per room	283	14%	2,053	10%	442,106	7%
1.51 or more occupants per room	58	3%	969	5%	334,035	6%
Total	2,076	100%	21,112	100%	5,940,036	100%

Source: American Community Survey 2023 (Five-Year Estimates), Table S2501.

8.2.4 Age of Housing Stock

Typically, housing over 30 years of age are more likely than recently built homes to need repair. As shown in Table 39, 46 percent of housing in the City is over or approaching 30 years in age, with the largest share of housing in this category built between 1990 and 1999 (19 percent). The largest share of housing in the city was built between 2000 and 2009 at 33 percent, which is higher than the share of similar aged structures in the County and State. In general, the City's housing stock is younger compared to the County and State, which has more housing built 1970 to 1970 and 1980 to 1989.

Table 39 Year Structure Built (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Built 2020 or later	181	3%	505	1%	115,353	1%
Built 2010 to 2019	1,175	17%	5,076	9%	893,912	6%
Built 2000 to 2009	2,296	33%	11,561	20%	1,614,728	11%
Built 1990 to 1999	1,326	19%	9,848	17%	1,499,658	10%
Built 1980 to 1989	684	10%	8,011	14%	2,165,990	15%
Built 1970 to 1979	227	3%	8,300	14%	2,466,441	17%
Built 1960 to 1969	286	4%	5,371	9%	1,842,499	13%
Built 1950 to 1959	424	6%	5,108	9%	1,842,420	13%
Built 1940 to 1949	39	1%	1,751	3%	799,634	6%
Built 1939 or earlier	238	3%	1,980	3%	1,292,048	9%
Total	6,876	100%	57,511	100%	14,532,683	100%

Source: American Community Survey 2023 (Five-Year Estimates), Table DP04.

8.2.5 Substandard Housing Conditions

Households lacking complete plumbing, kitchen, or telephone service helps reveal substandard housing conditions that can disproportionately burden vulnerable communities. Substandard housing was reviewed during the City's 2021-2029 Housing Element update, where zero percent of housing lacked complete plumbing facilities, 0.5 percent of housing lacked complete kitchen facilities, and 2.6 percent of housing had no telephone service available (including landline and cellular service) in 2018. Table 40 shows updated figures for substandard housing using 2023 data. There was an increase in households lacking plumbing facilities (0.9 percent), which is a share higher than the County (0.7 percent) and State (0.4 percent). The share of housing lacking kitchen facilities remained roughly the same (0.5 percent), which is lower than the County (0.8 percent) and State (1.2 percent). Households with no telephone service available decreased to 1.3 percent, which is similar to the County (1.3 percent) but higher than the State (0.9 percent).

Table 40 Lacking Facilities (2023)

Group	City of Imperial Estimate	City of Imperial % Total	Imperial County Estimate	Imperial County % Total	State Estimate	State % Total
Lacking complete plumbing facilities	52	0.9%	325	0.7%	55,481	0.4%
Lacking complete kitchen facilities	30	0.5%	381	0.8%	154,916	1.2%
No telephone service available	81	1.3%	617	1.3%	119,592	0.9%

Notes: Telephone service includes landline and cellular service.

Source: American Community Survey 2023 (Five-Year Estimates), Table DP04.

8.3 AFFORDABILITY OF HOUSING

8.3.1 Low- and Moderate-Income Neighborhoods

Low- and moderate-income persons account for approximately 25 percent of the City. The U.S. Department of Housing and Urban Development provides percentages of low- and moderate-income individuals at the block group level for CDBG Area Benefit compliance. Table 41 breaks down the percentage of low- and moderate-income individuals by block groups in the City using 2020 data. Some block groups extend past the City boundary and may

represent data outside the City (see Figure 4) but still provide a general idea of geographic distribution. Each block group affiliated with the City has a population of 718 to 4,645 people, with an average of 1,710 people per group. Four block groups have 50 percent or more of their population low- and moderate-income (Census Tract 110.02 Block Group 2, Census Tract 110.02 Block Group 3, Census Tract 110.02 Block Group 4, Census Tract 112.01 Block Group 3). These block groups are along State Highway 86, extending north to 15th Street, south to the boundary of the City past Treshill Road, west to La Brucherie Road, and east to P Street.

Table 41 Percentage of Low and Moderate Income by Census Block Groups (2020)

Geography	Percentage
Census Tract 110.01 Block Group 1	25%
Census Tract 110.01 Block Group 2	25%
Census Tract 110.01 Block Group 3	10%
Census Tract 110.02 Block Group 1	2%
Census Tract 110.02 Block Group 2	60%
Census Tract 110.02 Block Group 3	80%
Census Tract 110.02 Block Group 4	50%
Census Tract 110.02 Block Group 5	5%
Census Tract 110.02 Block Group 6	45%
Census Tract 112.01 Block Group 2	6%
Census Tract 112.01 Block Group 3	50%
Census Tract 112.01 Block Group 4	27%

Notes: Some Block Groups extend past the City boundary and may represent data outside the City.

Source: HUD 2020.

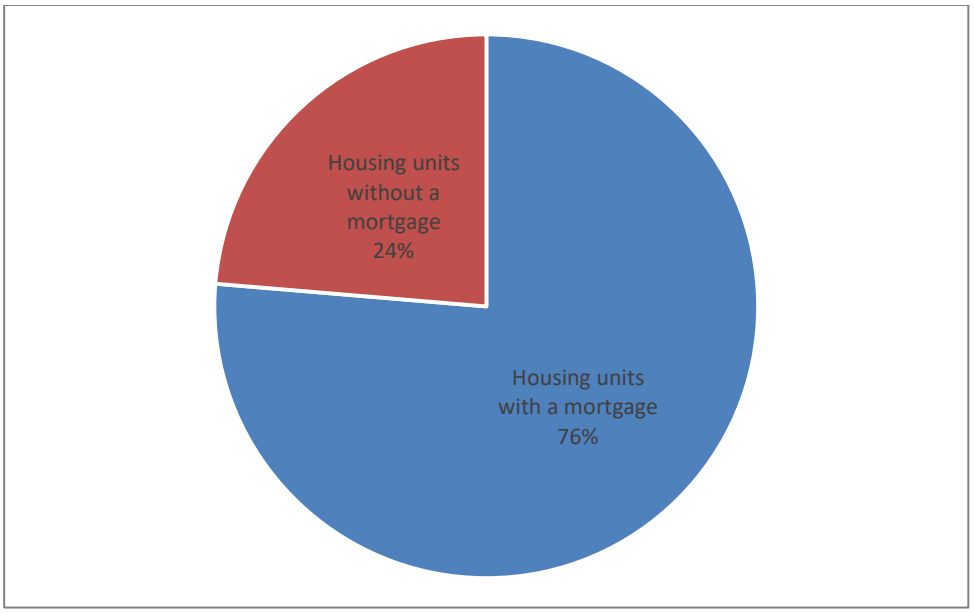
8.3.2 Median Housing Costs

Housing costs in the City are generally more expensive than in the County but less expensive than in the State, as shown in Table 43. The median monthly cost for housing units with a mortgage in the City is $2,024, which is about $300 more expensive than in the County ($1,728) and about $800 less expensive than in the State ($2,865). Monthly housing costs are significantly lower for housing units without a mortgage at $549 in the City, which is slightly higher than in the County ($544) and about $200 cheaper than the State ($783). Housing units without a mortgage account for only 24 percent of owner housing units in the City, as shown in Figure 24. Among owner units, a majority (76 percent) of housing units in the City have a mortgage. Median rent in the City is $1,396, which is about $300 more expensive than in the County ($1,012) and about $600 less expensive than in the State ($1,956).

Table 42 Median Housing Costs (2023)

Group	City of Imperial Estimate	Imperial County Estimate	State Estimate
Median monthly cost for housing units with a mortgage	$2,024	$1,728	$2,865
Median monthly cost for housing units without a mortgage	$549	$544	$783
Median rent	$1,396	$1,012	$1,956

Source: American Community Survey 2023 (Five-Year Estimates), Table DP04.



Source: American Community Survey 2023 (Five-Year Estimates), Table DP04.

Figure 24 Housing Units With and Without a Mortgage (2023)

8.3.3 Housing Cost Burden

Analyzing housing cost-burden reveals how many households spend an excessive share of income on housing, leaving less for essentials like food, healthcare, and transportation. HUD produces the Comprehensive Housing Affordability Strategy dataset (CHAS) to describe housing needs and problems, including housing cost-burden nationwide and in local geographies. Households are considered cost burdened when housing costs more than 30 percent of a household's income and severely cost burdened when housing costs more than 50 percent of a household's income. Some units are not computed for cost burden because sample sizes are too small to produce statistically reliable estimates for that geography or subgroup.

Table 43 breaks down housing cost burden in the City using 2021 CHAS data. Citywide 14 percent of households are cost burdened, spending more than 30 percent of their income on housing, and 14 percent are severely cost burdened, spending more than 50 percent of their income on housing. Between owners and renters, renters tend to be more cost burdened in the City. Twenty percent of renters are cost burdened and 22 percent are severely cost burdened, as compared to 12 percent of owners being cost burdened and 10 percent severe cost burdened. As shown in Figure 25, renters account for 34 percent of all households in the City.

Table 43 Housing Cost Burden in the City of Imperial (2021)

Group	Owner	% Total	Renter	% Total	Total	% Total
Not Cost Burdened	2,585	77%	990	55%	3,575	69%
Cost Burdened (>30%)	395	12%	350	20%	745	14%
Severe Cost Burden (>50%)	349	10%	390	22%	739	14%
Cost Burden not available	35	1%	45	3%	80	2%
Total	3,365	100%	1,785	100%	5,145	100%

Source: HUD 2021.

8.3.4 Housing Choice Voucher Usage

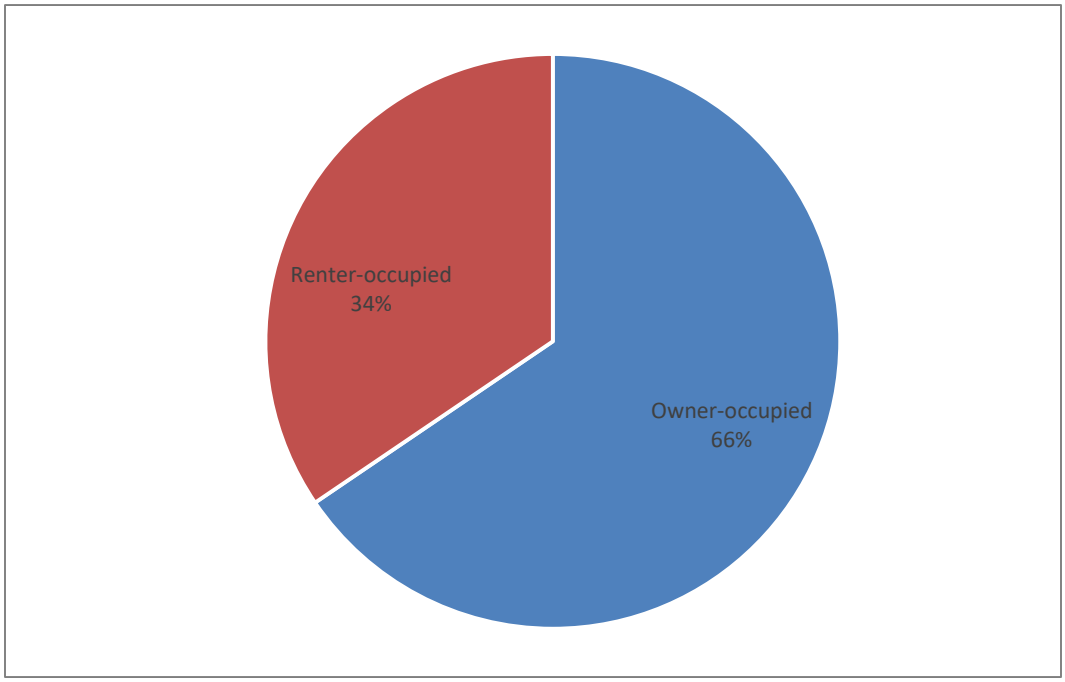
Housing Choice Vouchers, also known as Section 8, are a federal program providing rental assistance to very low-income people in need of affordable housing. The distribution of Housing Choice Vouchers highlights areas where lower-income households are concentrated, providing a proxy for identifying neighborhoods with predominantly low or moderate incomes. Geographic data on Housing Choice Vouchers exists only at the census tract level and excludes tracts containing less than ten voucher holders to protect the confidentiality of voucher holders. Census tracts 110.02 and 112.01 are reported to have at least ten voucher holders, as reported in **Table 44**. Census Tract 110.02 represents the parts of the western and central area of the City and has 76 Housing Choice Vouchers, which accounts for nine percent of all renter-occupied housing units in the tract. Census Tract 112.01 represents all areas of the City south of Aten Road and has 149 Housing Choice Vouchers, accounting for 15 percent of all renter-occupied housing units in the tract. Note that both tracts extend beyond the City boundary, and these vouchers may not exist entirely in the City but still offer a general idea of how common Housing Choice Vouchers are in the City. As shown in **Figure 25,** renters account for 34 percent of all housing tenure in the City.

Table 44 Housing Choice Vouchers (2020)

Geography	Housing Choice Vouchers	Percent of all renter-occupied housing units
Census Tract 110.02	76	9%
Census Tract 112.01	149	15%

Notes: Only tracts containing 10 or more voucher holders are shown to protect the confidentiality of voucher holders.

Source: Data from American Community Census 2020 (5-Year Estimates), Table H4; adapted by Ascent in 2025.



Source: American Community Survey 2023 (Five-Year Estimates), Table DP04.

Figure 25 Housing Tenure in the City of Imperial (2023)

8.4 DISPLACEMENT RISK

Displacement refers to the involuntary relocation of residents due to economic or environmental factors such as increasing rents, gentrification, and environmental hazards. The UC Berkeley Urban Displacement Project (2019) models displacement risk at the census tract level based on vulnerable renter and housing characteristics such as renter share, income mix, racial composition, rent gaps, regional rent levels, mobility patterns, new construction, and tenant protections. The model examines the displacement risk of households at 50 to 80 percent, and households zero to 50 percent of the Area Median Income. There are no census tracts in the City that have been identified as having displacement risk in the model. Census tracts 110.02 and 112.01 have a predicted low estimated renter displacement risk for both categories of households.

9 CIVIC ENGAGEMENT

9.1 INTERNET ACCESS

Internet access affects the ability of communities to access information, participate in decision-making processes, and advocate for their rights. The digital divide, which refers to the gap between those who have access to modern information and communication technology and those who do not, often mirrors and exacerbates existing social and economic inequalities. The U.S. Census Bureau developed an interactive Digital Equity Act Population Viewer (American Community Survey 2022) that shows broadband availability and use alongside demographics in every state. According to this data, 6.8 percent of the population in Census Tract 110.00 may lack a computer or broadband subscription while 17.8 percent of households in Census tract 112.02 may lack a computer or broadband subscription.

9.2 VOTER PARTICIPATION

Exercising one's right to vote is a critically important way to be civically engaged. However, socioeconomic barriers affect turnout: some people have language or educational barriers and others do not feel represented by candidates who do not speak to issues that are important to diverse communities. People cannot advocate for and protect their communities when they are excluded from the process that generates electoral representation and public policy.

In the City of Imperial, a total of 12,241 residents were registered to vote in 2024, and 8,020 participated in the 2024 primary election, representing a 65.5 percent turnout rate (Imperial County Registrar of Voters 2024a). In comparison, there was a total of 90,486 residents registered to vote throughout Imperial County, and 54,566 participated in the most recent election, representing a turnout rate of 60.3 percent (Imperial County Registrar of Voters 2024b). While turnout is relatively strong in both the City and County, it is important to recognize that systemic barriers may prevent certain groups, particularly low-income households, non-English speakers, and historically underrepresented populations, from engaging fully in the political process.

9.3 CITY COMMISSIONS AND ENGAGEMENT OPPORTUNITIES

Participation in local boards, commissions, and civic forums provides residents with a direct opportunity to shape policy decisions, advise elected officials, and influence how community resources are allocated. Some of the key bodies that provide this opportunity in Imperial are:

- The Planning Commission, which reviews land use, implements the City's General Plan, evaluates development projects, and oversees environmental reviews.
- The Imperial Public Library Board of Trustees, which guides library services and ensures that informational and cultural resources are aligned with community needs.

Despite these established avenues, participation can be hindered by barriers such as limited awareness of openings, lack of language access, and scheduling that conflicts with work or caregiving responsibilities.

10 REFERENCES

ACS. See US Census Bureau.

AllTransit. 2025. AllTransit Metrics. Available: https://alltransit.cnt.org/metrics/. Accessed August 2025.

California Air Resources Board. 2025. AB 2588 Air Toxics "Hot Spots." Available: https://ww2.arb.ca.gov/our-work/programs/ab-2588-air-toxics-hot-spots/about. Accessed August 12, 2025.

———. n.d. Top 4 Summary: Highest 4 Daily 24-Hour PM10 Averages. Available: https://www.arb.ca.gov/adam/topfour/topfour2.php. Accessed: August 27, 2025.

American Community Survey. *See* U.S. Census Bureau.

California Department of Education. 2024a. English Language Arts/Literacy and Mathematics Report. Available: https://caaspp-elpac.ets.org/caaspp/CompareReportSB?ps=true&lstTestYear=2024&lstTestType=B&lstGroup=1&lstGrade=13&lstSchoolType=A&lstCds1=13631640000000&lstCds2=00000000000000&lstNav=srch. Accessed August 28, 2025.

———. 2024b. Imperial High (Imperial, CA) Graduation Rate Indicator – 2024. Available: https://www6.cde.ca.gov/californiamodel/report?indicator=grad&year=2024&cdcode=&scode=1335900&reporttype=sgroups. Accessed August 28, 2025.

———. 2024c. 2023-24 Four-Year Adjusted Cohort Graduation Rate. https://dq.cde.ca.gov/dataquest/dqcensus/CohRate.aspx?cds=00&agglevel=state&year=2023-24. Accessed August 28, 2025.

California Department of Finance. 2025. E-4 Historical Population Estimates for Cities, Counties, and the State.

California Department of Housing and Community Development. 2025. Official State Income Limits for 2025. https://www.hcd.ca.gov/funding/income-limits/state-federal-income-limits/state. Accessed August 2025.

———. 2023. Official State Income Limits for 2023. https://www.hcd.ca.gov/sites/default/files/docs/grants-and-funding/income-limits-2023.pdf. Accessed September 2025.

California Department of Public Health. 2017 (February). Climate Change and Health Profile Report Imperial County. Available: https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/CHPRs/CHPR025Imperial_County2-23-17.pdf. Accessed: August 27, 2025.

California Department of Resources Recycling and Recovery. 2025. SWIS Facility/Site Search. Available: https://calrecycle.ca.gov/swfacilities/. Accessed August 2025.

California Department of Toxic Substances Control. 2011 (December). Site Screening Assessment. Prepared by Rania A. Zabaneh.

———. 2025a. EnviroStor Map. Available: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Sacramento#. Accessed August 27, 2025.

———. 2025b. Ross Flying Service. Available: https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=13070030. Accessed August 27, 2025.

———. 2025c. Visco Flying Company. Available: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60001238. Accessed August 26, 2025.

———. n.d. Hazardous Waste and Substances Site List (Cortese). Available: https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29. Accessed August 27, 2025.

California Employment Development Department. 2025a. Monthly Labor Force Data for Cities and Census Designated Places (CDP) Available: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Flabormarketinfo.edd.ca.gov%2Ffile%2Flfmonth%2Fimpersub.xls&wdOrigin=BROWSELINK. Accessed August 29, 2025.

———. 2025b. California Added 15,000 Jobs in July Press Release. Available: https://edd.ca.gov/en/about_edd/news_releases_and_announcements/unemployment-July-2025/. Accessed: August 29, 2025.

California Healthy Places Index. 2022. California Healthy places Index 3.0. Available: https://map.healthyplacesindex.org/?redirect=false. Accessed August 2025.

California Housing Partnership. 2023. Affordable Housing Map & Benefits Calculator [AFFC 3.0, Subsidized Housing]. Available: https://affordablehomes.chpc.net/?view=37.421476,-123.44521,6&rural=1,0&funding=hud,usda,lihtc,hcd,calhfa. Accessed August 2025.

CalRecycle. *See* California Department of Resources Recycling and Recovery.

CARB. *See* California Air Resources Board.

CDC. *See* Center for Disease Control.

CDOE. *See* California Department of Education

CDPH. *See* California Department of Public Health.

CDPR. *See* State of California Department of Pesticide Regulation.

CEDD. *See* California Employment Development Department.

Center for Disease Control. 2024a (June). Protect Yourself from the Dangers of Extreme Heat. Available: https://www.cdc.gov/climate-health/php/resources/protect-yourself-from-the-dangers-of-extreme-heat.html. Accessed November 2025.

———. 2024b (June). People at Increased Risk for Heat-Related Illness. Available: https://www.cdc.gov/heat-health/risk-factors/index.html. Accessed August 27, 2025.

———. 2025. Heat & Health Tracker. Available: https://ephtracking.cdc.gov/Applications/heatTracker/. Accessed November 2025.CHPC. See California Housing Partnership.

City of Calexico. 2025. Farmer's Market. Available: https://calexicorecreation.org/farmers-market. Accessed August 2025.

City of Imperial. 2008. City of Imperial Sanitary Sewer Master Plan.

———. 2015. Regional Park & Equestrian Center Negative Declaration. Available: https://ceqanet.lci.ca.gov/2015041012. Accessed August 2025.

———. 2017. City of Imperial General Plan Circulation Element. Available: https://www.cityofimperial.org/sites/default/files/173.133_06.30.17_Imperial-Circulation-Element_final.pdf. Accessed August 2025.

———. 2021. City of Imperial General Plan Housing Element. Available: https://www.cityofimperial.org/sites/default/files/FINAL-Housing-Element-HCD.pdf. Accessed August 2025.

———. 2024. November 20, 2024 Regular City Council Meeting. Available: https://www.youtube.com/watch?v=qlvAZrEOl6Q&list=PLQGdVXmSVOFCSz23xqGsguP_nwhVNtIsO&index=20. Retrieved August 2025. [42:30 onwards, capital improvement project].

———. 2025a. City of Imperial Service Area Plan. https://www.cityofimperial.org/sites/default/files/agendas/planning/PC07-23-25_Item-C1.pdf. Accessed July 2025.

———. 2025b. Water Master Plan. Received from City in July 2025.

———. 2025c. Sidewalk Inspection and Maintenance Program. Available: https://www.cityofimperial.org/sites/default/files/IPL_Sidewalk-Inspection-Maintenance-Prgrm_CC%2004-02-25.pdf. Accessed August 2025.

———. 2025d. Summer 2025 Activity Guide. Available: https://www.cityofimperial.org/sites/default/files/2025-Summer-Activity-Guide/. Accessed August 2025.

DTSC. *See* California Department of Toxic Substances Control.

El Sol Market. 2025. El Sol Market All Products. Available: https://nrsgo.com/elsolmarketimperial. Accessed August 2025.

EPA. *See* U.S. Environmental Protection Agency.

HCD. *See* California Department of Housing and Community Development.

HUD. *See* U.S. Department of Housing and Urban Development.

ICAPCD. *See* Imperial County Air Pollution Control District.

ICPHD. *See* Imperial County Public Health Department.

IID. See Imperial Irrigation District.

Imperial County Air Pollution Control District. 2018. 2018 Imperial County PM10 State Implementation Plan. Available: https://apcd.imperialcounty.org/wp-content/uploads/2020/01/2018PM10PlanBoardPacket.pdf. Accessed November 2025.

Imperial County Public Health Department. 2015. Local Agency Management Program/Advanced Protection Management Program, Onsite Wastewater Treatment Systems. Available: https://www.icphd.org/media/managed/environmentalhealth/Imperial_County_Local_Agency_Management_Program.pdf.

Imperial County Public Health Department. 2025. 2025 Heat-Related Illness Update. Available: https://www.icphd.org/assets/Heat-Surveillance/Heat-Reports-2025/Heat-Report-2025-5.1-7.17.25.pdf. Accessed August 27, 2025.

Imperial County Registrar of Voters. 2024a. District Canvass Report for Imperial County General Election. Available: https://elections.imperialcounty.org/wp-content/uploads/2025/02/District-Canvas-2025.02.04-1.pdf. Accessed September 2025.

———. 2024b. General Election Official Final Results Report. Available: https://elections.imperialcounty.org/wp-content/uploads/2025/02/ResultsReports.pdf. Accessed September 2025.

Imperial County Transportation Commission. 2019. Short Range Transit Plan. Available: https://www.imperialctc.org/assets/documents/transit-and-non-motorized/ICTC-SRTP_FINAL_Report__01172019_v2.pdf. Accessed August 2025.

———. 2022. Regional Active Transportation Plan. Available: https://www.imperialctc.org/assets/documents/transportation-plans-and-studies/ICTC-ATP_Final-Document_2022.02.28_Reduced-Size.pdf. Accessed August 2025.

———. 2024. Our Imperial Valley, Our Future, Our Growth. The Regional Long-Range Transportation Plan. Available: https://www.imperialctc.org/assets/lrtp_2.6.24-1711045986.pdf. Accessed August 2025.

Imperial County. 2025 (July). Restricted Materials Use Conditions. Available: https://agcom.imperialcounty.org/wp-content/uploads/2025/05/2025-26-RMP-Conditions.pdf. Accessed August 27, 2025.

Imperial Irrigation District. 2024. 2024 Integrated Resource Plan. Available: https://www.iid.com/home/showpublisheddocument/22189/638500810380270000. Accessed August 2025.

Imperial Unified School District. 2025. About Us. https://do.imperialusd.org/General-Information/About-Us/ Accessed August 28, 2025

Imperial Valley Food Bank. 2025. Find Help. Available: https://www.ivfoodbank.com/programs. Accessed August 2025.

IUSD. *See* Imperial Unified School District.

Lee Associates. 2021. Morning Star Subdivision. Available: https://www.lee-associates.com/elee/sandiego/LeeLandTeam/MorningStar/MorningStar-Brochure.pdf. Accessed August 2025.

National Oceanic and Atmospheric Administration. 2025. Storm Events Database. https://www.ncei.noaa.gov/stormevents/choosedates.jsp?statefips=6%2CCALIFORNIA. Accessed August 2025.

NOAA. See National Oceanic and Atmospheric Administration.

OEHHA. *See* Office of Environmental Health Hazard Assessment.

Office of Environmental Health Hazard Assessment. 2021 (October). CalEnviroScreen 4.0. Available: https://oehha.ca.gov/sites/default/files/media/downloads/calenviroscreen/report/calenviroscreen40reportf2021.pdf. Accessed August 2025.

Public Policy Institute of California. 2020. Higher Education and Economic Opportunity in California. Available: https://www.ppic.org/wp-content/uploads/higher-education-and-economic-opportunity-in-california-november-2020.pdf. Accessed November 2025.

SCAG. See Southern California Association of Governments.

Southern California Association of Governments. 2024. High Quality Transit Corridors Interactive Map. https://hub.scag.ca.gov/items/d4feb4ee0e5444ed98e41eb0fe33d480. Accessed August 2025.

State of California Department of Pesticide Regulation. n.d. Information on 1,3-Dichrloropropene (Telone). Available: https://www.cdpr.ca.gov/active-ingredient/13-dichloropropene-telone/. Accessed August 27, 2025.

State Water Resources Control Board. 2022 (January). About the SAFER Program. Available: https://www.waterboards.ca.gov/safer/background.html. Accessed August 15, 2025.

———. 2025a. Regulated Facility Report. Available: https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.html. Accessed August 2025.

———. 2025b. State Water Resources Control Board GeoTracker. Available: https://geotracker.waterboards.ca.gov/. Accessed August 2025.

SWRCB. *See* State Water Resources Control Board.

Tracking California. 2025. Ozone, 2024, Percentage of Days Exceeding U.S. Standard. Available: https://data.trackingcalifornia.org/?area=ncdm_air&event=OZON&type=PCTDUS&year=2024&co=206025000000000. Accessed August 27, 2025.

UC Berkeley Urban Displacement Project. 2019. California Estimated Displacement Risk Model. Available: https://www.urbandisplacement.org/maps/california-estimated-displacement-risk-model/. Accessed August 2025.

UCAR. *See* University Corporation for Atmospheric Research.

University Corporation for Atmospheric Research. n.d. How Weather Affects Air Quality. Available: https://scied.ucar.edu/learning-zone/air-quality/how-weather-affects-air-quality#:~:text=Heat%20waves%20often%20lead%20to,that%20soils%20are%20very%20dry. Accessed August 27, 2025.

U.S. Census Bureau. 2013. American Community Survey 2009-2013 Five-Year Estimates.

———. 2022. Digital Equity Act Population Viewer. Available via: https://mtgis-portal.geo.census.gov/arcgis/apps/webappviewer/index.html?id=c5e6cf675865464a90ff1573c5072b42. Accessed September 2025.

———. 2023. American Community Survey 2019-2023 Five-Year Estimates.

U.S. Department of Housing and Urban Development. 2020. Low- and Moderate- Income Survey Data 2016-2020. Available: https://www.hudexchange.info/programs/cdbg/cdbg-low-moderate-income-data/. Accessed August 2025.

———. 2021. Consolidated Planning/CHAS Data. Available: https://www.huduser.gov/portal/datasets/cp.html. Accessed August 2025.

U.S. Environmental Protection Agency. 2025. 2023 TRI Factsheet: County – Imperial, CA. Available: https://edap.epa.gov/public/extensions/TRIToxicsTracker_embedded/TRIToxicsTracker_embedded.html?. Accessed August 13, 2025.Zillow. 2025. Zillow Home Values Index. Available: https://www.zillow.com/home-values/12035/imperial-ca/?msockid=0247a04c8c3d656a1ab1b6588d716439. Accessed August 28, 2025.