Santa Maria General Plan

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Health + Environmental Justice
Existing Conditions Report

December 2020

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Health + Environmental Justice Existing Conditions Report

Purpose

This is one in a series of Existing Conditions Reports (ECRs) for the Santa Maria General Plan Update (SMGPU). The purpose of these reports is to summarize the current conditions and future trends for topics critical to the General Plan Update. This Health and Environmental Justice ECR complements other ECRs focused on environmental conditions, land use, transportation, infrastructure, and socioeconomics. It is also the initial step in fulfilling the requirements of Senate Bill 1000, also known as the 2016 Planning for Healthy Communities Act.

Senate Bill 1000 (SB 1000) requires cities that have "disadvantaged communities" to incorporate environmental justice policies into their general plans, either in a separate environmental justice element or by integrating related goals, policies, and objectives throughout the other elements. Specifically, general plans for jurisdictions that have disadvantaged communities must:

- Prioritize improvements and programs that address the needs of disadvantaged communities
- Promote safe and sanitary homes in disadvantaged communities
- Promote public facilities in disadvantaged communities
- Reduce exposure to pollution, including improving air quality in disadvantaged communities
- Promote food access in disadvantaged communities
- Promote physical activity in disadvantaged communities
- Reduce any unique or compounded health risks in disadvantaged communities not otherwise addressed above
- Promote civic engagement in the public decision-making process in disadvantaged communities.

This report, therefore, identifies disadvantaged communities in Santa Maria and summarizes conditions related to each of the required environmental justice topics – safe and sanitary homes, public facilities, exposure to pollution, food access, physical activity, and other unique or compounded health risks.

Report Analysis and Organization

Report Organization

The primary audience for this report is the City of Santa Maria and its communities. Therefore, after briefly introducing environmental justice as a concept and the related report methods below, there is a summary of key findings and a brief overview of how this report will support the General Plan Update. The key findings include an introduction to the areas of the city identified as disadvantaged communities, trends within those communities, citywide topics of concern, and implications for community engagement during the General Plan Update. This report concludes with an overview of how SB 1000 will be implemented in the remaining phases of the General Plan Update.

A detailed understanding of the methodology, data, and analysis is required to support the update. Therefore, this report also contains an extensive appendix, which will be used to inform community conversations that follow, as well as the ongoing planning work of the city, consultants, and other stakeholders.

Key Concepts

SB 1000 and Environmental Justice

The goal of SB 1000 is to help identify and reduce risks in communities disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation. SB 1000 defines environmental justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."[1]

Disadvantaged Communities

Disadvantaged communities exist when any of the following apply: (1) census tracts with CalEnviroScreen 3.0 index scores in the 75th percentile or higher; (2) low-income areas that are disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation; or (3) areas identified as having other cumulative disadvantages or health burdens. The methods for identifying disadvantaged communities are outlined in SB 1000, as well as in guidance from the Governor's Office of Planning and Research and the Office of the Attorney General. The Method of Analysis section below summarizes how disadvantaged communities in Santa Maria were identified, and a detailed description of the methodology is included in Appendices A and B.

Environmental Justice Topics

The Office of Planning and Research (OPR) has developed comprehensive guidance on each of the environmental justice topics that must be addressed in a general plan, including the considerations OPR recommends for each topic.[1] That guidance is summarized below:

- **Safe and Sanitary Housing** – Housing location, quality, affordability, and stability all contribute to physical, mental, and social health. Location considers factors such as proximity to health resources and risks. Quality considers factors such as maintenance and habitability. Affordability and stability consider factors such as housing cost burden and household size.
- **Public Facilities** – Public facilities include places, such as libraries, community centers, and parks, as well as services, such as safe drinking water, health care services, and broadband or internet access. These places and services are important resources that can enhance community health.
- **Pollution Exposure** – Polluting substances can be found in the air, water, and soil. At certain exposure levels, these substances can be linked to acute and chronic health impacts, such as asthma, birth defects, heart disease, and cancer.
- **Food Access** – Accessibility to food refers to how healthy, affordable, and near it is to people. Aspects of the physical environment, as well as social and economic vulnerabilities, can limit food access. Food insecurity and overconsumption of less nutritional food, in turn, may exacerbate increases in rates of obesity, diabetes, high cholesterol, heart attacks, and chronic diseases.
- **Physical Activity** – Physical activity is a key contributor to rates of chronic disease and related preventable deaths. Increased physical activity can help people improve mental and physical health and well-being. Most children and adults do not meet recommended levels of physical activity. Parks, recreation resources, open space, and active transportation can help.
- **Other Health Risks** – Other factors also affect health behaviors and outcomes and are interrelated with the above environmental justice topics. Some are unique to a particular place, like aspects of the physical environment, such as transportation. Others may reflect broader socioeconomic relationships, such as racial injustice or economic inequality. The unique characteristics of a place and compounded effects of multiple health risks should also be considered in the process of developing environmental justice priorities and policies.

Jurisdictions should also assess the geographic distribution and concentration of indicators for each topic, with a focus on specific areas identified as disadvantaged communities.

Method of Analysis

Appendices A and B summarize the methods used to identify disadvantaged communities in Santa Maria and to understand conditions related to each of the required environmental justice topics. A three-step process, corresponding with the three criteria that can be used to identify disadvantaged communities, as determined by the State Office of Planning and Research (OPR) and Office of the Attorney General (OAG), was applied:

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[1] *For detailed and up-to-date descriptions and considerations of each topic, please visit the OPR website: https://opr.ca.gov/planning/general-plan/guidelines.html.*

1. First, the State's CalEnviroScreen 3.0 mapping tool was used to determine whether any census tracts in the city receive a 75th percentile score or higher. None do.
2. Next, low-income census tracts and block groups in the city were identified, and each census tract was assessed to determine whether any of the individual CalEnviroScreen 3.0 Environmental Effects and Pollution Exposures exceeded the 75th percentile threshold. This method identified 10 census tracts as disadvantaged communities.
3. Lastly, given Santa Maria's historical context and the results of the completed demographic, health, and physical environment assessments, two additional census tracts were identified as disadvantaged communities. Neither is low-income, but both face disproportionate vulnerabilities, negative health outcomes, and/or poor physical environment conditions.

Appendices C through G include the detailed analysis used for those three steps, including maps, data, and other supporting evidence.

- The **Historical Context Discussion** in Appendix C provides a high-level summary of relevant migration and growth trends in the city. It is intended as a broad overview to understand current social and economic dynamics related to health and environmental justice issues, as well as SB 1000 mandates on public engagement during the General Plan Update.
- The **Population Demographics and Vulnerabilities Assessment** in Appendix D establishes a baseline of information on safe and sanitary housing, as well as race and ethnicity, income, education, and other indicators that can be used to explore spatial, racial, and economic disparities across the population. Understanding demographic and socioeconomic distribution and concentration can help the City develop targeted physical environment strategies to mitigate related vulnerabilities.
- The **Health Assessment** in Appendix E is an overview of the health outcomes and well-being of the population to better understand the prevalence of disease in the community. An understanding of physical activity, life expectancy, leading causes of death, and incidence of chronic disease can highlight unique or compounded health risks in disadvantaged communities, areas where Santa Maria is doing well, and where there may be opportunities for improvement to the physical environment.
- The **Physical Environment Assessment** in Appendix F analyzes the quality of the built environment in supporting healthy communities. This section examines conditions of the housing stock, access to public facilities, pollution exposure, food access, and pollution indicators in the environment.

Key Findings

Santa Maria's Disadvantaged Communities

Based on the method of analysis described above and detailed in the appendices, Santa Maria has 12 census tracts that are considered disadvantaged communities. Disadvantaged communities are located throughout the four quadrants of Santa Maria, identified by the intersection of Main Street and Broadway in Downtown (Figure 1). Each census tract that is a disadvantaged community in Santa Maria is briefly introduced below with a brief summary of factors that contributed to identifying it as a disadvantaged community.

Northwest

- **Census Tract 23.05** – Socially vulnerable, including a high percentage of foreign-born, Hispanic or Latino, and linguistically isolated population groups; poor health outcomes, including low rates of older adults keeping up with preventive care and unhealthy rates of diabetes, asthma, and people reporting poor mental health; and pollution exposure to high levels of pesticide use.
- **Census Tract 23.04** – Socially vulnerable, including high percentage of foreign-born, linguistically isolated, population groups, and high concentration of H-2A housing units; multiple poor health outcomes, including unhealthy rates of COPD, asthma, poor mental health, and lower rates of preventive care use in older adults (65+ years); and heightened pollution exposures (e.g., groundwater threats and impaired water bodies).
- **Census Tract 23.03** – Socially vulnerable, including high percentage of foreign-born, Hispanic or Latino, and linguistically isolated population groups and the highest rate in the county of grandparents alone responsible for grandchildren; poor health outcomes, including unhealthy rates of obesity, diabetes, asthma, and people reporting poor mental health; and pollution exposure to impaired water bodies.

Northeast

- **Census Tract 22.05** – Socially vulnerable, including high percentage of linguistically isolated population groups; poor health outcomes, including unhealthy rates of COPD, asthma, and people reporting poor mental health; and pollution exposure to impaired water bodies.
- **Census Tract 22.06** – Socially vulnerable, including a high rate of people with disabilities; poor health outcomes, including unhealthy rates of asthma, COPD, and people reporting poor mental health; and pollution exposure to impaired water bodies.
- **Census Tract 22.11** – Socially vulnerable, including high percentage of older adults and older adults who live alone, one of the highest percentages in the county of people with disabilities, and relatively high percentage of Black or African American residents; poor health outcomes, such as the least healthy scores in the city for cancer and coronary heart disease; and heightened pollution exposures to unhealthy rates of pesticide use (one of the highest exposure rates in the entire state), barriers in the built environment that can inhibit walkability and access to healthy food, and area with health and mental health professional shortages.

Southwest

- **Census Tract 24.03** – Socially vulnerable, including the highest rates of single-parent households and youth percentage in the county, high percentage of foreign-born, Hispanic or Latino, and renter population groups, and a high share of households without access to a vehicle; poor health outcomes, including unhealthy rates of obesity, diabetes, COPD, asthma, and people reporting poor mental health; physical environment that contribute to low walkability scores; and heightened pollution exposures (e.g., groundwater threats, impaired water bodies, and solid waste sites and facilities).
- **Census Tract 24.04** – Socially and economically very similar to census tract 24.03. However, this census tract also has the lowest concentration of seniors in the City of Santa Maria and the highest percentage of linguistically isolated people in the county. Heightened pollution exposures are impaired water bodies.
- **Census Tract 24.02** – Socially vulnerable, including a high concentration of linguistically-isolated people; poor health outcomes, including unhealthy rates of asthma and people reporting poor mental health; and heightened pollution exposures to most indicators in CalEnviroScreen 3.0, including cleanup sites, impaired water bodies, solid waste sites and facilities, and some of the highest exposures in the state to pesticide use, groundwater threats, and hazardous waste generators and facilities—resulting in this being the census tract with the highest overall pollution burden in the city.
- **Census Tract 20.11** – Socially vulnerable, including high percentage of older adults. The census tract has the highest percentage of White alone residents in the city; poor health outcomes, including diabetes, cancer, heart disease, and COPD; and poor physical environment factors that inhibit access to healthy food.

Southeast

- **Census Tract 21.01** – Socially and economically vulnerable; experiences multiple poor health outcomes, including unhealthy rates of COPD and asthma; and heightened exposures to high levels of pesticide use, impaired water bodies, and solid waste facilities.
- **Census Tract 21.03** – Socially vulnerable, including a high concentration of Asian alone and linguistically isolated population groups; poor health outcomes, including unhealthy rates of diabetes, obesity, COPD, and asthma; and heightened pollution exposures due to high levels of pesticide use, groundwater threats, and hazardous waste generators and facilities.

Figure 1. Disadvantaged Communities, City of Santa Maria
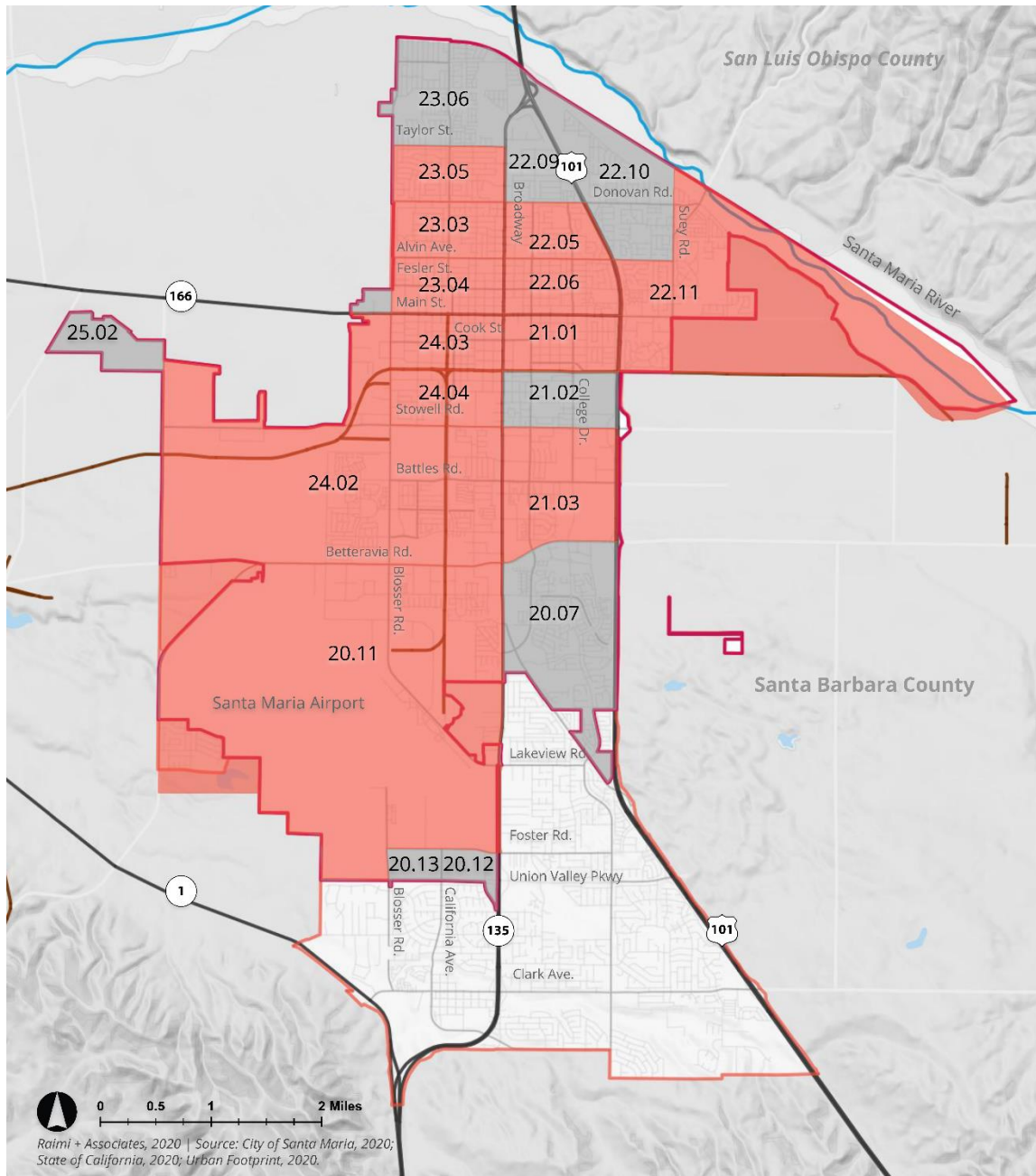
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.

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Legend

- City Limits
- Sphere of Influence
- Water
- Railroads
- Freeways/Highways
- Major Streets
- Local Streets

Results

- Disadvantaged Communities
- Other areas

*Note: No census tracts in Santa Maria meet all three SB 1000 criteria.

Trends in Santa Maria's Disadvantaged Communities

As noted above, SB 1000 requires that specific environmental justice topics in disadvantaged communities be addressed in the General Plan. Trends related to those topics are summarized below:

Safe and Sanitary Housing

- **Crowding** – Santa Maria has a higher-than-average household size, twice as many households with 1.01 to 1.5 occupants per room (14%), and almost three times as many households with 1.51 occupants or more (10%) compared to Santa Barbara County. Crowding can decrease mental health quality, increase the spread of diseases, and have a myriad of other health and well-being effects on householders of all ages, but particularly those with social vulnerabilities.
- **Cost Burden** – Housing-burdened households (i.e., households that spend 30% or more of their income on housing) are located throughout the City of Santa Maria, with a higher concentration in census tracts identified as low-income, particularly in the northwest and central areas of the city. In these census tracts, many households are also severely housing-cost burdened, paying 50% or more of their income on housing.
- **Older Housing Stock** – Almost two thirds (65%) of all housing in Santa Maria was built in 1979 or before. This housing stock is concentrated in disadvantaged communities, areas with multiple social and economic vulnerabilities. The highest concentration of older housing is in census tracts 23.04 and 22.06 near Downtown. Older housing stock is generally associated with the presence of health-harming construction materials, such as lead, that can lead to a range of acute and chronic conditions, including asthma, lead poisoning, and respiratory infections.
- **Code Violations** – City Fire, Building, and Code Enforcement Departments are tasked with conducting investigations of substandard housing conditions and report high numbers of violations of different types in the last five years. While the number of violations recorded by these City Departments is high, additional data is necessary to determine whether code violations related to safe and sanitary housing conditions are widespread or only concentrated in certain areas.
- **H-2A Housing** – As the number of H-2A Visa workers in the city has increased, requirements for employers to provide lodging to visiting workers has also increased housing demand in low-income areas of the city. Santa Maria is one of the top cities in California for H-2A workers: in Quarter 3 of Fiscal Year 2020, 5,175 workers were certified to work in the city, making up 23% of all total certified workers in California for that reporting period, second only to Salinas (29%). Despite the increasing number of H-2A workers housed in Santa Maria, not enough data is available on the conditions and related health impacts of lodging provided for these workers or on how demand for H-2A worker lodging is impacting low-income households.

For more detailed information, see the Tenure, Affordability, and Homelessness section in Appendix D: Population Demographics and Vulnerabilities Assessment and the Housing Stock section in Appendix F: Physical Environment Assessment.

Public Facilities

- **Walk Access** – Most residents in the city (57%) live within a 5-minute walk of a transit stop; another 33% live within 5-10 minutes of a transit stop. This is an important indicator of health because many lower income families are reliant on transit to access goods and services, schools, jobs, and health care. Additionally, nearly half (46%) of people in the city are within a 10-minute walk to their nearest park. In northern areas of the city, the 101 freeway creates a significant barrier for pedestrians wanting to access Jim May Park. In the south part of the city, particularly west of Broadway Avenue, park access is limited due to both distance and number of facilities.
- **Health Care Access** – Most of the city is designated as a Health Professional Shortage Area (HPSA) for primary medical care to the Medicaid eligible population and mental health care for the low-income migrant farmworker population, indicating a shortage of providers in these fields.
- **Preventive Health** – In Santa Maria, there are four census tracts (24.04, 24.03, 23.04, 23.05) where less than 20% of both older adult men and women (65+ years) are up to date on a core set of clinical preventive services. Ensuring affordable and accessible access to preventative care is critical to supporting a healthy lifestyle in the community.

For more information, see Appendix F: Physical Environment Assessment and the Land Use and Community Design ECR.

Exposure to Pollution

- **Air Quality** – Air quality is not an issue of concern in Santa Maria. Census tracts in the city have some of the lowest percentile scores in the state for air quality indicators in the CalEnviroScreen 3.0 tool. These include Ozone, Diesel Particulate Matter, and Fine Particulate Matter.
- **Pesticide Exposure** – Exposure to pesticides is a critical issue in Santa Maria. Census Tract 22.11 is among the communities with the most elevated concentration of active pesticides across the entire state.
- **Hazardous Sites** – The siting of hazardous, clean up, and solid waste facilities near residential neighborhoods, particularly low-income communities, poses a serious threat in case of a hazard release emergency. In Santa Maria, there are five hazardous waste generators and one treatment, storage, and disposal facility (TSDF) that impact disadvantaged communities, given the concentration of these facilities to homes and the large generation of waste they produce. All five hazard waste generators are in census tract 20.11, near the Santa Maria Airport. The TSDF site lies on the southern border of census tract 24.02, just north of census tract 20.11.
- **Groundwater Threats -** A concentration of oil and gas wells exists in the city, particularly south of Stowell Road. Oil companies are leading various remediation efforts of old sites. However, the City will need to consider how to address the impacts of idle and plugged oil well sites, including cleanup and the threat of potential leaks.

For more information, see the CalEnviroScreen 3.0 data in Appendix B: Overview of Methodology Used to Identify Santa Maria DACs and Appendix F: Physical Environment Assessment.

Food Access

- **Food Insecurity** – The rate of food insecurity among adults in Santa Maria (16%) is twice the rate in Santa Barbara County (8%). "Food security" is defined as having access to enough food for an active, healthy life for all people at all times. Food insecurity can lead to undernourishment and malnutrition, which coincide with fatigue, stunted child development, and other health issues.
- **Food Access** – Food access (i.e., close physical proximity to a food store) is most limited on the city's northeast and northwest areas, in addition to a large area southwest of Downtown. In some of these areas, 33% of the population lives more than 1 mile from a supermarket, supercenter, or large grocery store.

For more information, see Appendix E: Health Assessment and Appendix F: Physical Environment Assessment.

Physical Activity

- **Obesity** – In Santa Maria, 36% of adults are obese, a higher rate than the county (27%). Six low-income census tracts (23.05, 23.03, 23.04, 24.03, 24.04, 21.03) are impacted by the least healthy scores for obesity in the Healthy Places Index. The prevalence of obesity in adults can increase with sedentary lifestyles.
- **Walkability** – The Land Use and Community Design ECR found that Downtown is the most walkable part of the city. Despite this traditionally being an indicator of an environment that is conducive to increased physical activity, some of the most walkable areas have the highest obesity rates in the city. Residents in most other areas of the city have less convenient walking access to schools, parks, and/or retail. In addition, the city's trail network is limited and lacks connectivity, hindering the ability of pedestrians to walk to destinations.

For more information, see Appendix E: Health Assessment and Appendix F: Physical Environment Assessment as well as the Land Use and Community Design ECR.

Socioeconomic Conditions and Health Outcomes

Research has found that the demographic and socioeconomic characteristics of residents impacts one's potential health outcome. This section summarizes the results of the Population Demographics and Vulnerabilities Assessment and the Health Assessment (see the appendix for more detail on these topics).

- **Low Income** – Residents living in low-income census tracts have the least healthy rates of:
  - Heart disease, cancer, and lung diseases (including asthma), which can have direct links to the environmental effects of pollution.
  - Diabetes and obesity, which are also risk factors for heart disease and cancer.
  - Chronic lower respiratory diseases, despite representing a small number of county deaths.
- **Youth and children** – Youth and children aged 19 and younger make up 35% of the population in Santa Maria; 25% of this population lives in poverty. Various census tracts in with the highest concentration of youth in Santa Maria also have the highest rates of single-parent households in all of Santa Barbara County and a very high concentration of low-income households.

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- **Older adults –** The greatest concentration of older adults (65+) that live alone (26%) resides in census tract 22.11, on the northeastern boundary of the city, which also has a critical level of pollution exposure.
- **Chronic Disease –** Some specific population groups in Santa Maria are disproportionately impacted by chronic disease:
    - African Americans tend to have higher rates of heart, cancer, and lung diseases.
    - Men have higher rates of heart disease, cancer, and diabetes than women.
    - Women, Latinos, and African Americans are more impacted by Alzheimer's Disease.
- **High Death Rates –** Zip code 93454 in Santa Maria, which includes various low-income census tracts, has the highest age-adjusted death rate in the county.
- **Health Insurance –** An estimated 16% of adults aged 18-64 in Santa Maria are uninsured, compared to 12% in the county.
- **Mental Health –** There is an elevated perceived sense of poor mental health in census tracts where people also identify a lack of physical activity.

For more information, see Appendix E: Health Assessment and Appendix D: Population Demographics and Vulnerabilities Assessment.

COVID-19 and the Community Health Planning Process

At the time of writing this report, the COVID-19 Pandemic has emerged as a threat to the health of the Santa Maria community. Local governments are being asked to comply with "social distancing" measures, forcing the closure of businesses, increased frequency of sanitizing public infrastructure, and taking other similarly restrictive measures to protect the health of their residents and workforce. What we know about the impacts of COVID-19 continues to change, but a few notable trends have emerged:

- Pre-existing chronic health diseases—like diabetes, heart disease and asthma—are all leading factors in complications requiring hospitalization, or at worse, mortality.[2]
- Many "essential workers," particularly in the goods movement, agriculture, health, and food delivery sectors, are less able to "shelter in place," seek medical treatment, or take paid leave when ill. These types of issues can result in increased community transmission and decreased testing in poor and low-income communities.
- Farmworkers, many of whom already work in dangerous and unhealthy conditions, have faced additional challenges, including the threat of exposure as essential workers and in group transportation and housing settings.[3]
- Lastly, many people are unable to afford high rents that continue to rise and are now compounded by historic rates of unemployment.[4]

These are some of the health and economic concerns that have been magnified because of the pandemic - the impacts will affect society for many years to come, reinforcing the need to address health and environmental justice issues in the city.[5]

Implications for Community Engagement

- **Conduct Engagement in identified disadvantaged communities** – Per SB 1000 guidelines, the General Plan update process will conduct specific engagement activities in disadvantaged communities to confirm or eliminate disproportionate health risks identified in this report. Given that many areas of the city are identified as disadvantaged, the engagement process will include specific questions about health and environmental justice issues rather than focusing engagement on specific sub-areas of the city.
- **Farmworker outreach** – Agriculture continues to be a driving economic and demographic force in the city. As such, it is critical that the General Plan Update engagement process address the unique health and environmental justice issues that farmworkers face.
- **Inclusiveness of the city's diverse racial and ethnic populations** – Historically, non-whites in the city have experienced significant demographic shifts. The General Plan engagement process will need to prioritize inclusiveness of the city's diverse racial and ethnic populations, given a history of social and economic exclusion of these groups.

For more detail, see Appendix C: Historical Context.

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Next Steps

Community Engagement

The identification of disadvantaged communities in this report is preliminary, based on existing data sources. As noted in Appendix A, State SB 1000 guidance also requires that jurisdictions engage community members, local health departments, regional air quality districts, and other local stakeholders in ground truthing discussions about environmental justice issues, impacts, and priorities. This engagement may reveal new data and information and/or lead to the refinement of analysis included in this report. Based on this report and the outcomes of the subsequent community engagement, the City of Santa Maria will determine which census tracts are considered disadvantaged communities.

Guiding Principles and Areas of Change

The findings from this report and related community engagement will also be used during the General Plan Update process. For example, during Phase 2, findings will inform both development of the Guiding Principles and identification of areas in the city that will likely remain stable and those with significant change in the coming decades.

Comparing Alternatives

Building on Phase 2 outputs, this report and related community conversations will inform Phase 3, in which various alternatives will be considered in areas of the city where change is anticipated. Specifically, the geographic location of disadvantaged communities will be a significant factor in designing alternative land uses and community investments across the city. Likewise, the environmental justice topics and related indicators can be used to assess how each alternative performs relative to broader community goals.

Environmental Justice Goals, Policies, and Objectives

This report and related engagement will also be significant factors during Phase 4, which begins with the development of a General Plan Policy Framework. As noted above, SB 1000 requires cities to incorporate environmental justice policies into their general plans, either in a separate element or by integrating related goals, policies, and objectives throughout the other elements. The Policy Framework will determine how that is done, and most importantly, how the General Plan will advance safe and sanitary housing, equitable access to healthy food and public facilities, reduced exposure to pollution, greater physical activity, and improved health in Santa Maria.

Appendix A: Understanding of Screening Methods Recommended by the State

The Office of Planning and Research (OPR) provides guidance for implementing SB 1000. Additionally, the Office of the Attorney General (OAG) provides monitoring and compliance review of SB 1000. These state agencies recommend at least three methods for the identification of disadvantaged communities (DACs). The detailed methodology below summarizes Raimi + Associates' understanding of and knowledge of best practices related to these recommendations.

Criterion 1: CalEnviroScreen 3.0 Tool DACs – The CalEnviroScreen (CES) Tool was developed by the Office of Environmental Health Hazards Assessment (OEHHA) to identify areas of the State with high exposures to pollution and significant vulnerabilities related to demographic or socioeconomic characteristics (such as linguistic isolation, high proportions of children or seniors, and housing cost burden) of the population.[6] Data for about 20 indicators is collected for each census tract in California and combined into an index. The index is then translated into percentile scores between 1 and 100 to evaluate which census tracts have more exposures to pollution, face more environmental effects, and have more concentrations of vulnerable population groups. For the purposes of SB 1000, all census tracts with index scores that are in the percentile range of 75 to 100 are to be identified as DACs.

Criterion 2: Low-Income + Disproportionately Burdened DACs – California law defines low-income disadvantaged communities as (a) "an area that is a low-income" and (b) "disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation." Jurisdictions have a lot of flexibility in how they determine which communities can be identified as disadvantaged communities:

Considerations for identification of "an area that is low-income:"

- *Median Household Income Data Sources* - An area is defined as low-income if its median household income falls below 80% of the county or statewide area median income (AMI). The State of California recommends jurisdictions use the income limits set by the Housing and Community Development Department (HCD) to identify these areas. Jurisdictions may choose to use other data sources, such as the American Community Survey or the California Department of Finance, in addition to the HCD limits, to determine the area median income.
- *Household Size Adjustments* - No matter what data source is chosen for this analysis; the best practice is to ensure that the average household size of that jurisdiction is considered to determine which areas are low-income.
- *Geographic Unit of Analysis* - The State does not specify the geographic unit of analysis necessary to complete the first step (2a) in this screening methodology. A jurisdiction may choose to use census block groups, census tracts, zip codes, or other relevant units of analysis.

Considerations for identification of an area that is "disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation:"

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- Indicators - The State does not provide direct guidance on the full breadth of indicators or data sources related to environmental pollution and hazards a jurisdiction must consider. It does, however, require that the final environmental justice element or related policies address, at a minimum, the following outcomes: improvement of air quality and promotion of public facilities, food access, safe and sanitary homes, physical activity, and health risks. To achieve these outcomes, a jurisdiction may choose to analyze indicators that are directly related to each of those topics. For example, to identify areas where safe and sanitary home improvements may be needed, a jurisdiction could choose to look at local code enforcement compliance data or analyze the proximity of low-income households to incompatible uses, like factories, waste disposal sites, or high-volume roadways.
- Data Sources - Both OPR and OAG identify the CalEnviroScreen 3.0 Tool as a reliable source for indicators on pollution exposures or environmental effects in a census tract. This tool can be a good starting point to the analysis, but has its limitations, such as outdated data sources and limited indicators. The best practice, as recommended by the State, is to begin with CalEnviroScreen 3.0 and then identify local data sources that can provide more current or other topical data. Jurisdictions should also rely on community engagement and groundtruthing activities that bring people from disadvantaged communities to the decision-making table to identify issues and measure impacts.
- Measuring Disproportionate Effects – The State does not provide direction or requirements for measurement of disproportionate effects. Jurisdictions can choose any thresholds or standards they deem appropriate to assess this measure and further the protective intent of SB 1000. Jurisdiction should document how disproportionate burden "can lead to negative health effects, exposure, or environmental degradation," identifying how the measure was determined *and* documenting all assumptions that are made in the analysis.

Criterion 3: Other Dimensions of Disadvantage DACs – In addition to the two detailed criteria, the State recommends that jurisdictions refer to other indices and data sources which touch on additional aspects of disadvantage not already considered. Each jurisdiction should make a concerted effort to look at census tracts, block groups, and other relevant units of analysis to ensure that all DACs are recognized. Jurisdictions should also engage community members, local health departments, regional air quality districts, and other stakeholders early in the planning process to ensure that local issues and qualitative data are considered in the identification of DACs.

As a jurisdiction develops and conducts this analysis, it is important that all technical analyses and related results be summarized and properly referenced throughout the planning process. Clear and concise information that shows how communities and priority issues were identified should be available for: public review; evaluation of potential policies or programs for inclusion in the plan; and reference material for the final planning document, which should show how the needs and priorities of disadvantaged communities were integrated into the plan.

Appendix B: Overview of Methodology Used to Identify Santa Maria DACs

This section presents details on the methodology applied for screening disadvantaged communities (DACs) in the City of Santa Maria across the three criteria of identified in Appendix A:

1. Is the census tract a CalEnviroScreen 3.0 percentile scores DAC?
2. Is the census tract low-income and disproportionately burdened by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation?
3. Is the census tract disproportionately vulnerable or health risked?

Twelve (12) census tracts meet these criteria (Table 1 and Figure 2).

Table 1. Disadvantaged Communities by SB 1000 Criteria Met, City of Santa Maria

Census Tract DAC Screening Criteria *(Comparison Geography in Parentheses)*	Criteria Description and Comparison Geography		# of Census Tracts Identified	Final DAC Results
Criteria 1: Is it a "CalEnviroScreen 3.0 DAC (State)" DAC?	Census tracts with CalEnviroScreen 3.0 scores between the 75th to 100th percentile range in the State of California are automatically classified as DACs.		No (0) census tracts	**Twelve (12) census tracts in Santa Maria** **Total population: 77,108****
Criteria 2a: Is it a "Low-Income (State) and Disproportionately Burdened" DAC?	Census tracts with household incomes at or below 80% of the statewide median income (Calculated at *$62,000,* using *HUD FY 2018 California Median Income*).	and "disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation" are screened as DACs.*	Nine (9) census tracts Total population: 58,006**	
Criteria 2b: Is it a "Low-Income (County) and Disproportionately Burdened" DAC?	Census tracts with household incomes at or below 80% of the countywide income limits (Calculated at $63,680, using *HCD FY 2018 Santa Barbara County Area Median Income*).		One (1) additional census tract Total population: 6,979**	
Criteria 3: Is it a "Disproportionate Vulnerabilities or Health Outcomes (Local)" DAC?	Census tracts with a higher concentration of residents with multiple social or economic vulnerabilities or negative health outcomes and environmental effects, compared to the city and county population.		Two (2) additional census tracts Total population: 12,123**	

Notes: * See the detailed methodology in Appendices A and B for discussion of disproportionate exposures and effects.
** This may include some of the population outside of the City of Santa Maria boundaries in some census tracts.

Sources: Raimi + Associates, 2020; Office of Planning and Research, General Plan Guidelines, 2020; Office of Environmental Health Hazard Assessment, CalEnviroScreen 3.0, 2018; Income limits from California Housing and Community Development (HCD) Department, 2018; American Community Survey, 5-Year Estimates for 2014-2018.

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Figure 2. Disadvantaged Communities by Number of SB 1000 Criteria Met, City of Santa Maria
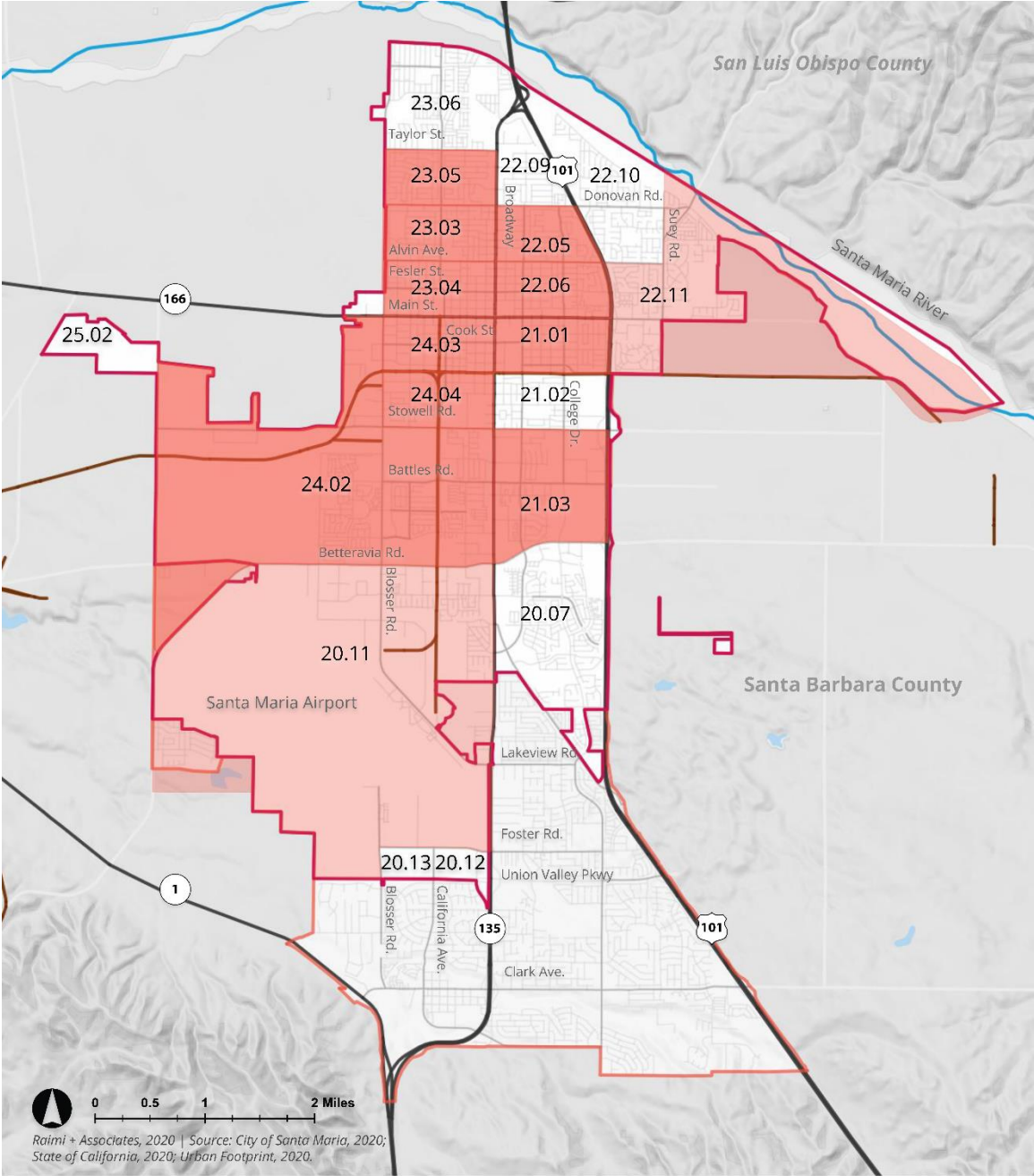
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

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- City Limits
- Sphere of Influence
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- Railroads
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- Local Streets

Disadvantaged Communities by Number of SB 1000 Criteria Met

- One
- Two
- Three *

*Note: No census tracts in Santa Maria meet all three SB 1000 criteria.

Data Considerations

Data is provided at the city level and compared to the Santa Barbara County level, where available. In some cases, data for Santa Maria is available by census tract and zip code (Figure 3 and 4), thus providing a more detailed analysis of the geographic locations of certain indicators and outcomes. Census tract 25.02 is not included in the existing conditions report, given that much of the land area falls outside of the City of Santa Maria and data overlaps with the City of Guadalupe. The area within the City is unpopulated and includes the wastewater treatment facility, a compost facility, and a food warehouse.

Data year and sources for this report are identified in the endnotes and include public agencies, non-profit entities, research institutes, local media, and other sources. Data provides a baseline of indicators to understand high level population health and built environment trends; as such, it should be understood as a point in time analysis that is subject to change. The geographic unit of analysis varies across the report, depending on the data source and available data.

Data from CalEnviroScreen 3.0 and Healthy Places Index are presented as percentile scores in four quartiles. The findings from these maps and discussions show how each census tracts compare to all other census tracts in the state using a percentile score—for CalEnviroScreen 3.0, a score closer to 100 indicates less healthy community conditions and closer to 0 indicates healthier community conditions, while for Healthy Places Index, a score closer to 100 indicates healthy community conditions and closer to 0 indicates less healthy community conditions (as noted in each map).This report reviews data and themes also covered in other Existing Conditions Reports prepared for the SMGPU. Every effort has been made to ensure consistency of the data across reports, nevertheless some discrepancies may arise because this report focuses only on the population within the incorporated City of Santa Maria boundaries and excludes the Sphere of Influence.

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Figure 3. Census Tracts, City of Santa Maria
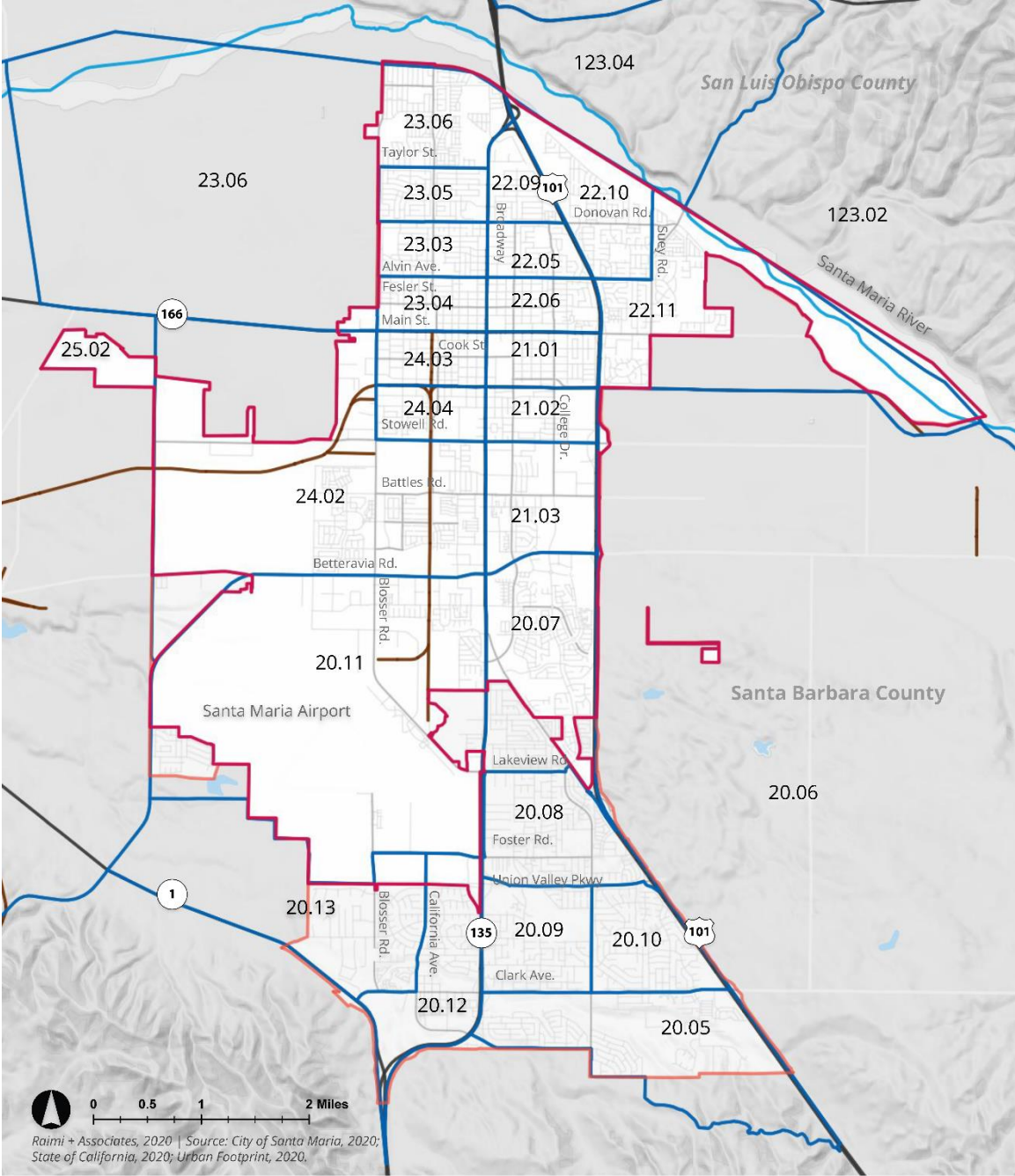
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

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	City Limits
	Sphere of Influence
	Water
	Railroads
	Freeways/Highways
	Major Streets
	Local Streets
	Census Tracts

Figure 4. Zip Codes, City of Santa Maria
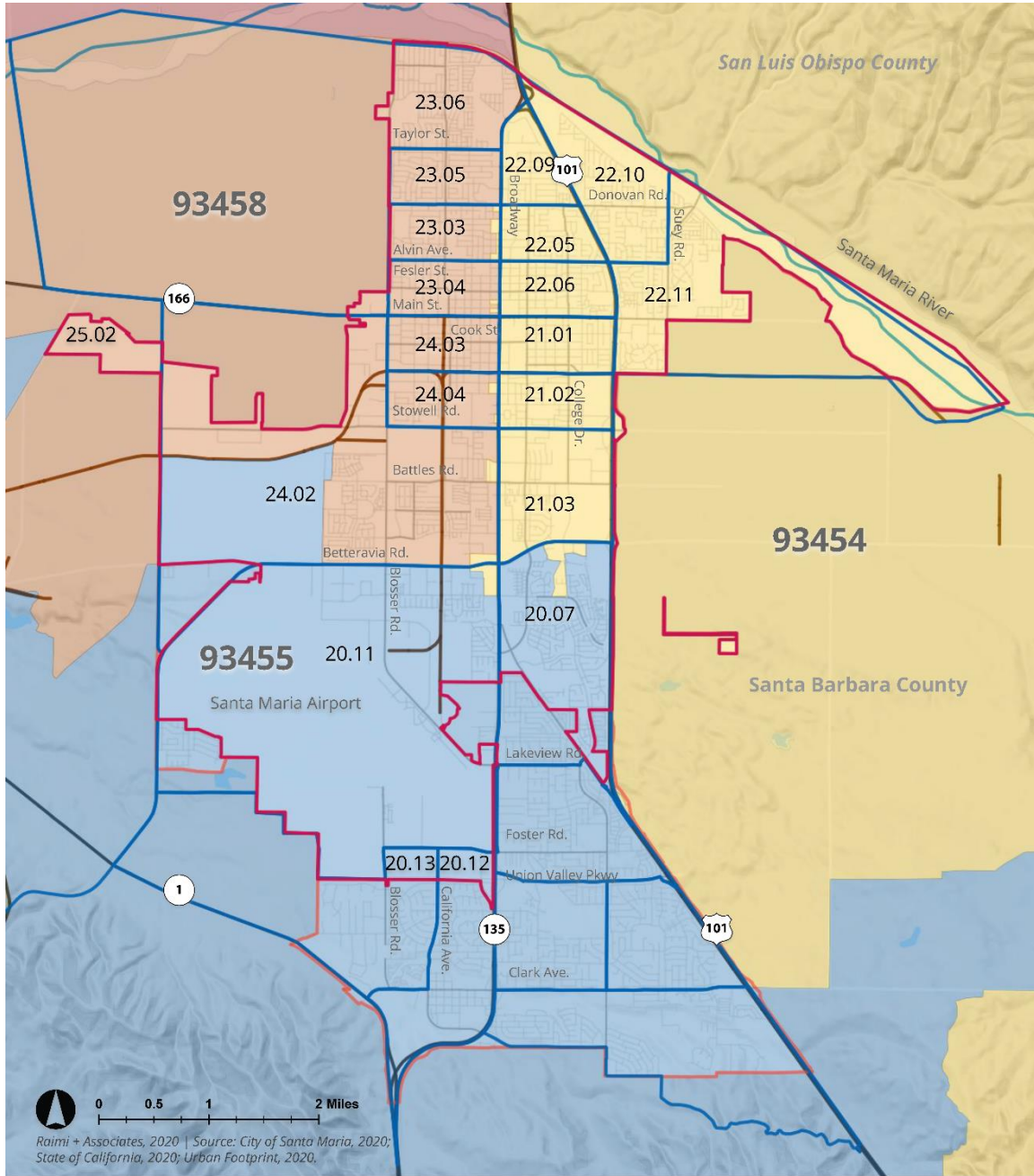
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.

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☐	City Limits
☐	Sphere of Influence
☐	Water
—	Railroads
—	Freeways/Highways
—	Major Streets
—	Local Streets
☐	Zip Codes
☐	Census Tracts

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1. CalEnviroScreen 3.0

The project team created a map of CalEnviroScreen 3.0 scores for all census tracts in the Planning Area and found no DACs. The results, showing no census tracts in the 75-100 range, are shown in Figure 5.

Figure 5. CalEnviroScreen 3.0 Composite Percentile Score, City of Santa Maria
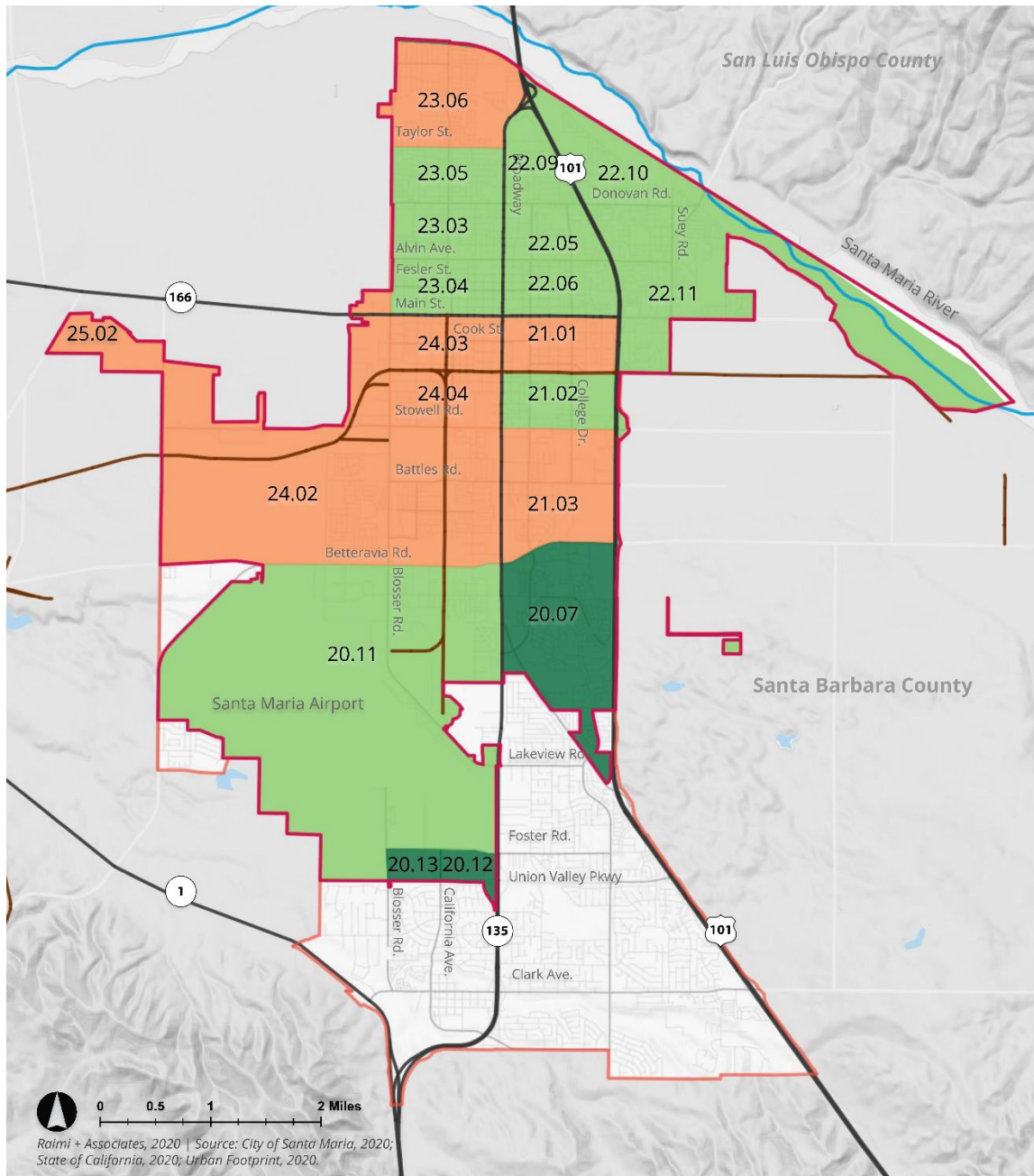
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

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CalEnviroScreen 3.0 (2018) - Composite Index Percentile

	75 - 100% (Highest Scores)
	50 - 75%
	25 - 50%
	0 - 25% (Lowest Scores)

2. Low-Income and Disproportionately Burdened

The project team took the steps below to identify low-income communities and assess pollution exposure risks, environmental degradation, and health outcomes.

Identify Low Income Areas

- **Step 1. Adjust for Household Size** - Calculate the average household size for the City of Santa Maria using ACS 2018 5-Year Estimates. Results: The average household size in Santa Maria is 3.78 persons, which was rounded up to 4 persons for the purposes of this analysis.
- **Step 2. Determine Threshold** - Calculate 80% of the State of California and Santa Barbara County Median Household Income for a family of 4 using the HCD Income Limits for 2018. Please note that the 2018 year was chosen to align with the ACS 2018 5-YR Estimates data timeframes. The results are:

	California	Santa Barbara County
Area Median Income	$77,500	$79,600
80% of AMI	$62,000	$63,680

- **Step 3. Map Census Tracts and Block Groups** – Produce maps of median household income by census tracts and block groups, highlighting which areas fall below 80% of California and/or Santa Barbara County AMI. The results are presented in Table 2 and Figures 6 and 7. Ten census tracts (21.01, 21.03, 22.05, 22.06, 23.03, 23.04, 23.05, 24.02, 24.03, 24.05) were identified as low-income and were assessed for other dimensions of disadvantage under Criterion 3.

Assess Disproportionate Effects of Environmental Pollution and Hazards

- **Step 1. Select Indicators and Data Sources** – For this step of the screening process, Raimi + Associates looked at the individual Environmental Effects and Pollution Exposures indicators of the CalEnviroScreen 3.0 Tool. The Tool has been reviewed and approved through a public engagement process and in consultation with several state agencies, thus it includes appropriate indicators and a dataset to conduct a screening for environmental justice purposes.
- **Step 2. Define Threshold for Disproportionate Effects –** For this step of the screening process, Raimi + Associates used the threshold for identification of DACs in CalEnviroScreen 3.0: percentile scores in the 75th to 100th range. The California Environmental Protection Agency identified the range of the top 20th to 25th percentile as consistent with thresholds used for other state programs and as representative of "the portion of the state's population, families and households, that represent traditional markers of being disadvantaged."[7]
- **Step 3. Identify Low-Income Areas with Disproportionate Pollution Exposures or Environmental Effects** – Raimi + Associates exported a table of the selected census tracts in the planning area, highlighting those where the census tract was identified as a low-income area, and identified CalEnviroScreen 3.0 indicators where the census tract scored in the 75th to 100th percentile of tracts in the state (Table 3). All ten census low-income census tracts (21.01, 21.03, 22.05, 22.06, 23.03, 23.04, 23.05, 24.02, 24.03, 24.05) have high pollution burdens and are DACs. Maps for high-pollution indicators are located throughout Appendix F: Physical Environment Assessment.

Table 2. Low-Income Area Analysis, by Census Tract and Block Group, City of Santa Maria

Census Tract	Block Group	Quadrant (From intersection of Main and Broadway)	Median Household Income (Census Tract)	Below 80% State AMI	Below 80% County AMI	Median Household Income (Block Group)	Below 80% State AMI	Below 80% County AMI	Total Population
20.07	1	Southeast	$ 72,692	No	No	$ 54,545	Yes	Yes	869
	2					$ 87,255	No	No	692
	3					$ 100,238	No	No	1,025
	4					$ 98,355	No	No	3,457
	5					$ 22,468	Yes	Yes	534
	6					$ 63,832	No	No	1,512
	7					$ 87,250	No	No	2,045
20.11	1	Southwest	$ 74,468	No	No	$ 98,906	No	No	2,160
	2					$ 51,111	Yes	Yes	540
	3					$ 71,231	No	No	3,762
20.12	1	Southwest	$ 90,773	No	No	$ 117,773	No	No	1,061
20.13	2	Southwest	$ 126,250	No	No	$ 136,705	No	No	1,421
21.01	1	Southeast	$ 49,500	Yes	Yes	$ 45,536	Yes	Yes	2,256
	2					$ 50,781	Yes	Yes	2,237
21.02	1	Southeast	$ 71,134	No	No	$ 76,406	No	No	1,186
	2					$ 68,750	No	No	1,057
21.03	1	Southeast	$ 49,375	Yes	Yes	$ 52,850	Yes	Yes	1,187
	2					$ 30,766	Yes	Yes	2,140
	3					$ 73,802	No	No	1,184
22.05	1	Northeast	$ 53,149	Yes	Yes	$ 66,900	No	No	1,477
	2					$ 77,452	No	No	1,335
	3					$ 42,273	Yes	Yes	2,665
22.06	1	Northeast	$ 37,857	Yes	Yes	$ 69,836	No	No	1,660
	2					$ 35,607	Yes	Yes	2,197
	3					$ 31,210	Yes	Yes	1,386
22.09	1	Northeast	$ 70,458	No	No	$ 69,107	No	No	1,929
	2					$ 75,357	No	No	1,677
22.10	1	Northeast	$ 91,382	No	No	$ 99,076	No	No	2,814
	2					$ 75,078	No	No	1,600
	3					$ 89,722	No	No	2,250
22.11	1	Northeast	$ 72,895	No	No	$ 54,630	Yes	Yes	856
	2					$ 98,875	No	No	1,094
	3					$ 78,432	No	No	2,656
	4					$ 49,382	Yes	Yes	1,055

Tract	BG	Region	Median Income			Income			Pop
23.03	1	Northwest	$ 55,608	Yes	Yes	$ 85,500	No	No	1,381
	2					$ 57,396	Yes	Yes	1,559
	3					$ 56,607	Yes	Yes	1,678
	4					$ 49,643	Yes	Yes	1,592
	5					$ 66,016	No	No	242
23.04	1	Northwest	$ 46,215	Yes	Yes	$ 46,944	Yes	Yes	1,255
	2					$ 44,300	Yes	Yes	1,479
	3					$ 63,243	No	Yes	1,553
	4					$ 35,956	Yes	Yes	1,951
23.05	1	Northwest	$ 62,455	No	Yes	$ 35,855	Yes	Yes	1,424
	2					$ 70,647	No	No	1,237
	3					$ 88,125	No	No	2,167
	4					$ 61,295	Yes	Yes	2,151
23.06	1	Northwest	$ 65,000	No	No	$ 86,518	No	No	1,535
	2					$ 101,424	No	No	2,209
	3					$ 34,044	Yes	Yes	1,096
	4					$ 98,750	No	No	4,674
24.02	1	Southwest	$ 59,269	Yes	Yes	$ 60,052	Yes	Yes	1,124
	2					$ 59,784	Yes	Yes	7,302
	3					$ 39,283	Yes	Yes	1,469
	4					$ 72,946	No	No	2,893
24.03	1	Southwest	$ 50,488	Yes	Yes	$ 40,816	Yes	Yes	2,134
	2					$ 56,333	Yes	Yes	1,929
	3					$ 53,640	Yes	Yes	2,729
24.04	1	Southwest	$ 50,389	Yes	Yes	$ 42,845	Yes	Yes	2,739
	2					$ 44,700	Yes	Yes	1,878
	3					$ 78,214	No	No	1,509
	4					$ 53,778	Yes	Yes	2,886

Notes: Census tracts highlighted in yellow are low-income. Census tracts highlighted in green are not low-income census tracts but contain at least one census block group that is low-income. Cells highlighted in pink show low-income determination. Census tract 25.02 is not included in the low-income analysis because much of the land area falls outside of the City of Santa Maria, where population demographics data overlaps with the City of Guadalupe. The 80% of Area Median Income (AMI) threshold for the County has been established at $63,680, based on the Santa Maria average household size; The 80% of AMI threshold for the State has been established at $62,000, based on the Santa Maria average household size. The Santa Maria average household size has been rounded up to 4, based on the 3.78 persons per household average estimated in the ACS 2018 5-Year Estimates.

Figure 6. Low-Income Census Tracts with High Pollution Burden, City of Santa Maria
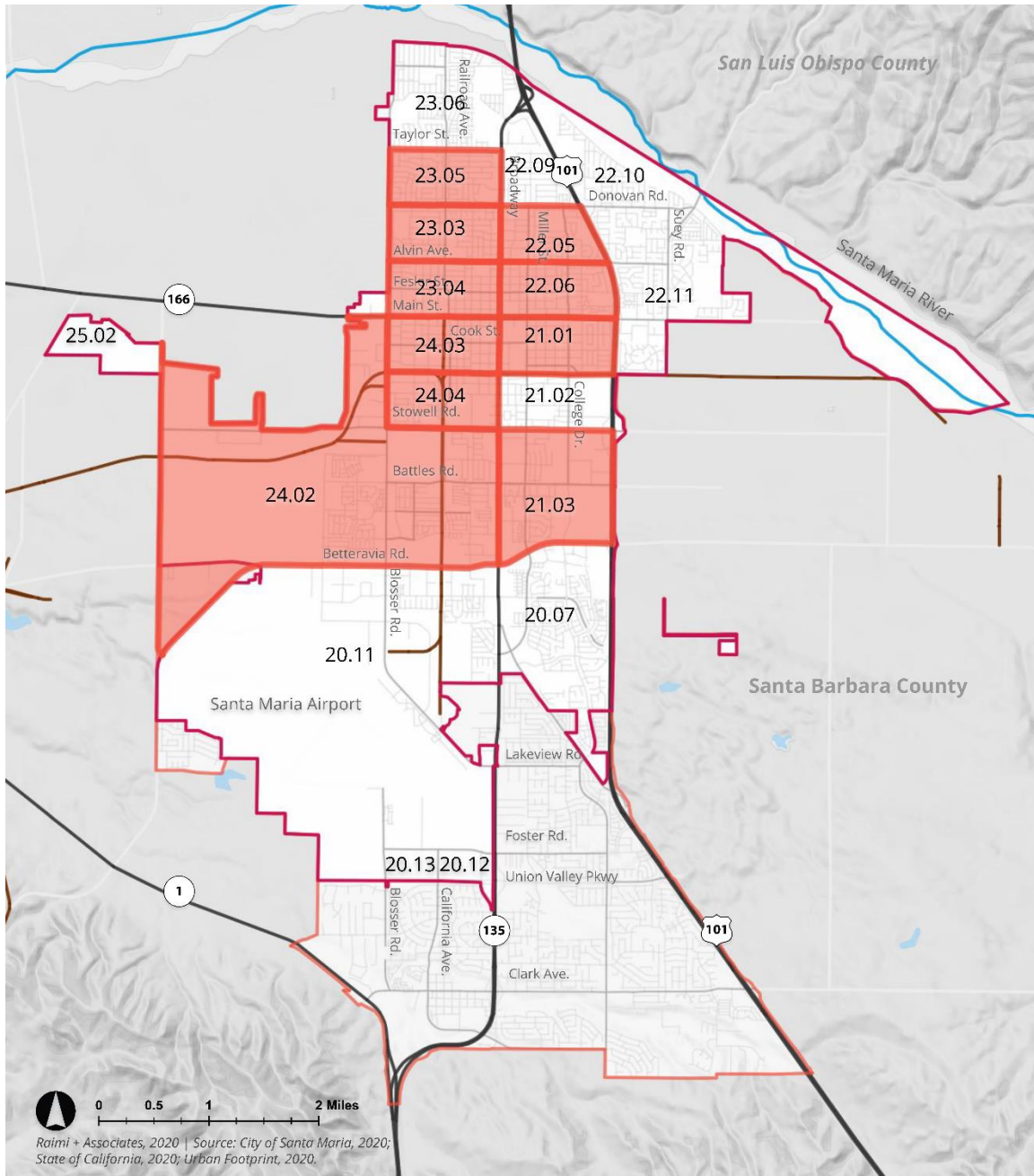
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

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	Local Streets
	Low-income and High Pollution Burdened Census Tracts

Figure 7. Low-Income Block Groups, City of Santa Maria
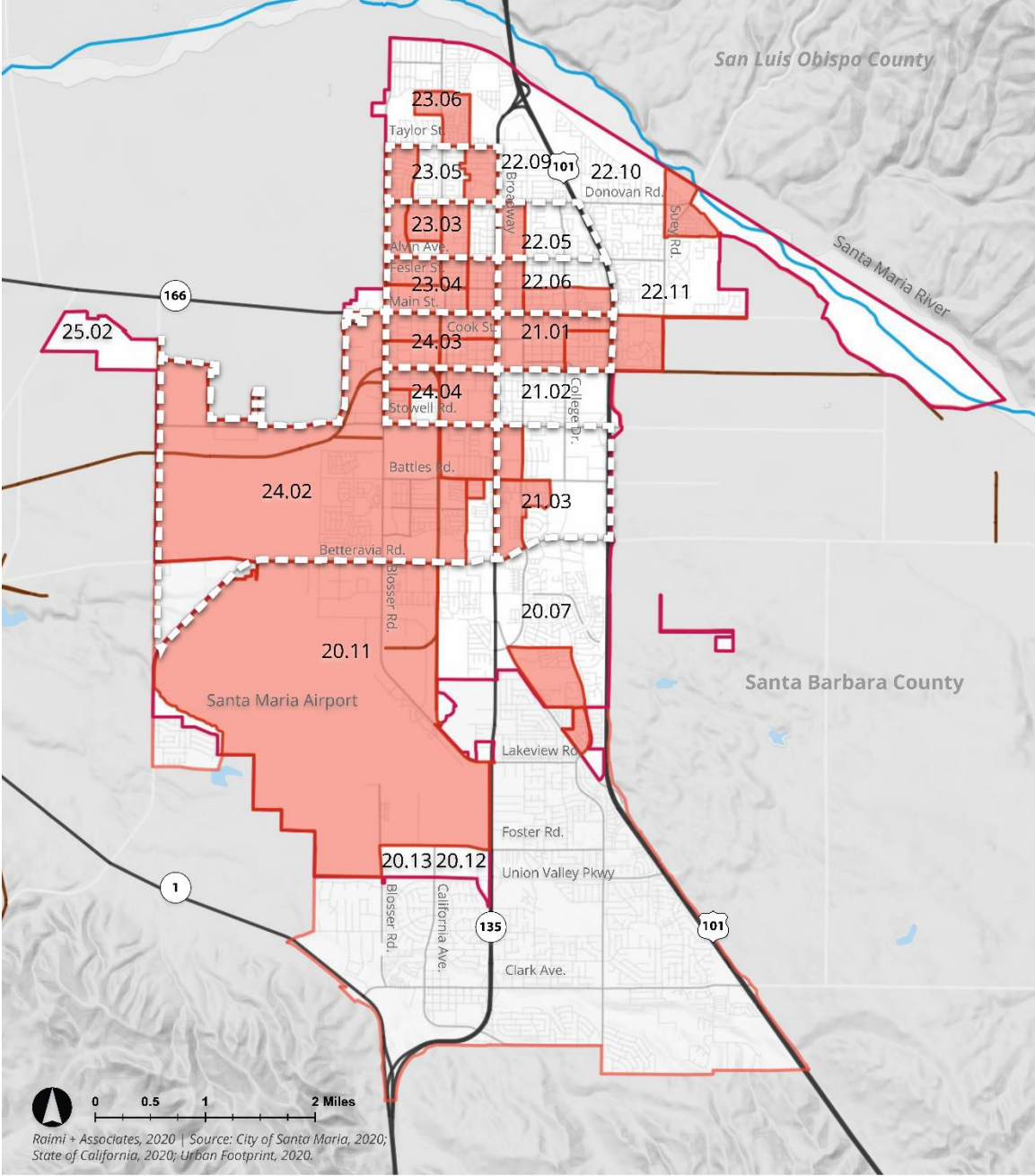

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

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- Low-Income Block Groups
- Low-Income and High Pollution Burdened Census Tracts

Table 3. CalEnviroScreen 3.0 Composite and Indicator Percentile Scores, City of Santa Maria

Census Tracts by Low-Income Status*	CES 3.0 Score (Composite)	Pollution Exposures Indicators							Environmental Effects Indicators					Pollution Burden Composite	# of Exposures and Effects
		Ozone	Particulate Matter 2.5 (PM 2.5)	Diesel Particulate Matter	Drinking Water Contaminants	Pesticide Use	Toxic Releases from Facilities	Traffic Density	Cleanup Sites	Groundwater Threats	Hazardous Waste Generators and Facilities	Impaired Water Bodies	Solid Waste Sites and Facilities		
23.04	35	17	2	32	30	0	20	23	46	76	0	76	41	15	2
22.11	47	17	2	31	38	100	19	28	0	47	43	96	91	47	3
20.11	42	17	2	27	64	99	12	13	74	99	98	0	92	63	4
20.13	6	17	2	13	60	99	10	3	65	82	0	0	68	28	2
21.01	59	17	2	32	30	94	19	39	9	61	0	81	83	39	3
23.06	53	17	2	40	43	100	23	23	66	86	43	97	80	68	4
20.12	19	17	2	14	28	95	10	8	42	79	0	0	23	11	2
22.10	42	17	2	30	38	39	21	57	35	39	61	94	74	44	1
22.05	36	17	2	32	30	0	21	41	0	15	10	94	0	5	1
22.06	39	17	2	32	30	0	20	35	0	66	0	81	65	13	1
22.09	44	17	2	31	30	11	22	48	52	14	61	93	20	23	1
24.03	56	17	2	32	30	63	20	25	63	75	0	76	83	39	3
23.03	41	17	2	32	30	71	21	32	18	41	10	76	0	18	1
20.07	14	17	2	37	36	93	14	33	0	99	89	0	0	31	3
24.04	57	17	2	42	30	56	20	33	52	53	0	76	41	29	1
23.05	40	17	2	32	30	80	22	25	24	50	43	72	0	25	1
21.02	45	17	2	44	30	93	18	41	5	38	0	81	65	34	2
24.02	65	17	2	38	57	99	17	18	76	99	97	76	89	79	7
21.03	59	17	2	51	30	95	17	35	18	82	89	72	0	47	3
# of Top 25% Tracts	-	-	-	-	1	12	-	-	2	10	4	14	7	1	-

Notes: Census tracts highlighted in yellow are low-income areas. Percentile scores highlighted in pink are represent scores in the top quartile of poor conditions across all census tracts in California.

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3. Other Dimensions of Disadvantage

The project team took the steps below to identify disadvantaged communities with disproportionate vulnerabilities, negative health outcomes, or poor physical environmental conditions. To confirm or further assess dimensions of disadvantage in low-income areas with high pollution burdens, the project team overlaid the boundaries of the ten low-income census tracts (21.01, 21.03, 22.05, 22.06, 23.03, 23.04, 23.05, 24.02, 24.03, 24.05) onto maps of indicators considered under Criterion 3.

Research the Historical Context

Research migration and growth trends in the city to understand current social and economic dynamics related to health and environmental justice issues, as well as SB 1000 mandates on public engagement in the planning process. Findings are presented in Appendix C: Historical Context.

Identify Socially or Economically Vulnerable Populations

Establish a baseline of information on race and ethnicity, income, education, and other indicators that can be used to explore spatial, racial, and economic disparities across the population. Findings are presented in Appendix D: Population Demographics and Vulnerabilities Assessment.

Assess Population Health Outcomes and Behaviors

Overview data on the health outcomes and well-being of the population using indicators in and outside of CalEnviroScreen 3.0 to better understand the prevalence of disease in the community. Findings are presented in Appendix E: Health Assessment.

Assess Physical Environment Conditions

Analyze the relationship between existing conditions of the physical environment—including pollution exposures and environmental effects from CalEnviroScreen 3.0—and the historical context, vulnerability, and health findings. Findings are presented in Appendix F: Physical Environment Assessment.

Results

Given the results of the demographic, health, and physical environment assessments, results from the second criteria methodology are confirmed and ten low-income census tracts face disproportionate health risks. Further, there are two census tracts that are not low-income, but face disproportionate vulnerabilities, negative health outcomes, or poor physical environment conditions. These two census tracts are described below and presented in Figure 8:

- Tract 22.11, given unhealthy rates of pesticide use, cancer, heart disease, COPD; barriers in the built environment that can inhibit walkability and access to health food; identification as a health professional and mental health professional shortage areas; and high percentage of people over the age of 65.
- Tract 20.11, given unhealthy pollution indicators, diabetes, cancer, heart disease, and COPD; factors in the built environment that can inhibit access to healthy food; identification as a health professional and mental health professional shortage areas; and high percentage of people over the age of 65.

Figure 8. Census Tracts with Other Measures of Disadvantage, City of Santa Maria
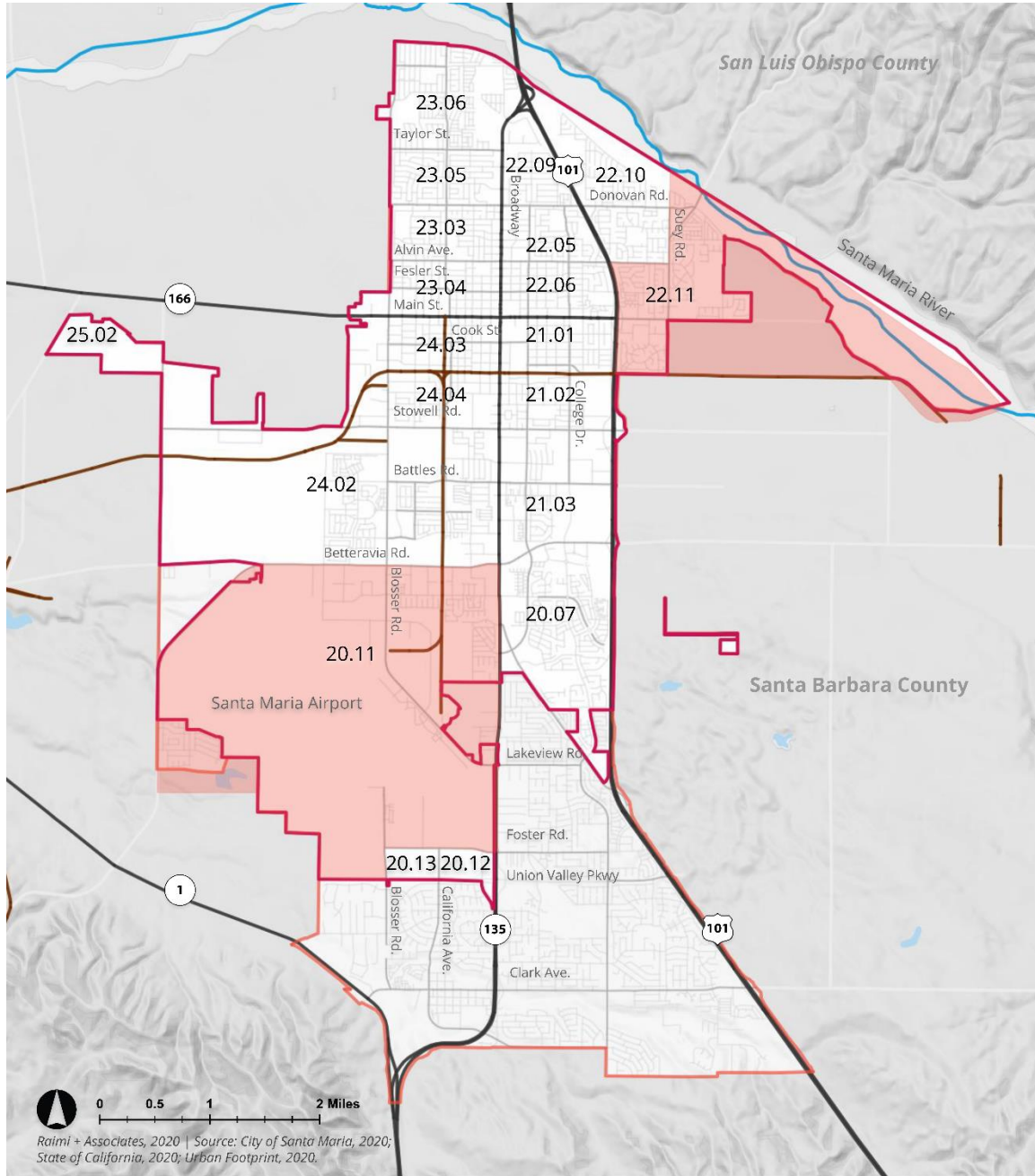
Appendix C: Historical Context

The Historical Context provides a high-level summary of relevant migration and growth trends in the city. It is intended as a broad overview to understand current context in addressing health and environmental justice issues, as well as SB 1000 mandates on public engagement in the planning process for jurisdictions updating their general plans.

Key Findings

- **Agriculture continues to be a driving economic and demographic force in Santa Maria.** As such, it is critical that the engagement process is attuned to the unique health and environmental justice issues low-income residents face, especially given that in Santa Maria, many of these residents are farmworkers.
- **Historically, non-whites in Santa Maria have experienced significant demographic shifts.** The General Plan engagement process will need to prioritize inclusiveness of the city's diverse racial and ethnic populations, given a history of social and economic exclusion of these groups.

Founding of Santa Maria

In the late 16th and early 17th centuries, the land known today as the Santa Maria Valley was inhabited by the Chumash, an indigenous society that spanned the central coast California, relying heavily on fishing and hunter-gathering to grow into a population of about 25,000 at its peak.[8] The Chumash had no written language. Their culture, traditions, and social and economic practices were transmitted through oral histories and were lost through the processes of colonization in the Spanish-American and Anglo-American periods of the 18th century to today.[9,10] Over the course of the 19th and early 20th centuries, the Santa Maria Valley became more populous, as Mexican and Anglo-American settlers, pioneers, farmers, and oil and gold seekers, amongst others, migrated to the area during the United States' westward expansion.[11] In the early 20th century, Santa Maria was incorporated and transformed into a center for agriculture, jobs, and housing for people across the region.

Growth of Santa Maria

Since its founding, Santa Maria has grown and diversified its economy and population in other industries, taking strategic advantage of its proximity to Vandenberg Air Force Base, located 20 miles south of the city.[12] Economic drivers—agriculture, defense, and other industries—along with diverse migrants shaped the growth and transformation in Santa Maria and the region. However, many of these migrants have faced barriers to accessing resources and opportunities in the city.

Early 20th Century Asian Migration and Integration

In the 19th and early 20th century, many Asian migrants settled in the Santa Maria Valley, taking on jobs in the railroads, farms, gold mining, and other employment that shaped the city's physical development.

Filipinos in Santa Maria

From the 1920s to the 1970s, many Filipinos worked in the Santa Maria Valley fields, served in World War II, owned farms, and formed strong community ties in the city.[13] Despite their numerous

contributions to the growth of California's agricultural cities and economy, many faced significant racial discrimination and economic exclusion that kept them from owning land, marrying non-Filipinos, and participating in local government and citizenship in meaningful ways.[14] The earliest waves of migration from the Philippines, were limited mostly to men who could provide labor to different industries, such as agriculture.[15] Following the war, more women began to join the men in the United States, setting the stage for Filipino community-building across the Central Coast. In Santa Maria, one such family is the Curaza family, who is honored with a tile in the Heritage Walk of Santa Maria's Town Center West. In the post-war decades, Filipino immigrants were more highly educated, resulting in a shift from farm-working to nursing, engineering, and other fields, leading many out of the Santa Maria Valley into urban places.[16]

Japanese in Santa Maria

In the early twentieth century, the Japanese community in Santa Maria worked in the fields, and over time, built a rich community with schools, community centers, religious buildings, farms, businesses and more.[17] During World War II, the Japanese were displaced from their homes and dispossessed of their properties due to internment practices. Many property and business owners left their lands in the care of friends from Filipino, White, and other backgrounds. Others sold their lands to the government to avoid confiscation. [18, 19] While some community members voluntarily moved to other cities and states, others faced significant discrimination upon return to their homes.[20]

Mid-20th Century African American Migration and Integration

African Americans have lived in Santa Maria since at least the 1930s, though not many records of their history in the city are available.[21] Many African Americans migrated from the South to California and joined White, European, Asian, Mexican, and other migrants and immigrants working in the agricultural fields.[22] Records and oral histories of African Americans stationed at Camp Cooke, now part of the Vandenberg Air Force Base, indicate a larger number of African Americans began to settle in the Santa Maria Valley around the time of World War II.[23] For most African Americans across the region, subtle and overt forms of racism manifested in social or economic exclusion. For instance, segregated housing and facilities at the Santa Maria-Lompoc Air Base, was a lived reality for many African Americans across the country.[24]

Late 20th and Early 21st Century Latino Migration and Integration

Prior to the 1980s, many Mexican field workers migrated seasonally to the Santa Maria Valley through the Bracero Program, temporarily living in places like Santa Maria.[25] The first major documented period of rooted growth of the Hispanic or Latino population in Santa Maria occurred between 1980 and 1990—when the city's overall population grew by 54%, from 39,685 to 61,284 people and Hispanic or Latino people accounted for 70% of that growth.[26] While United States Census data is limited, it is commonly known that Santa Maria presently has a large community of Mixtec people and has been a destination of Mixtec migration since at least the 1980s.[27] The Mixtec ("Mixteco" in Spanish) are indigenous native Mexican peoples—most speak indigenous languages, making them even more linguistically isolated than other people of Mexican descent in the United States—and they have migrated from the Mexican state of Oaxaca, where many live in poverty in a region disconnected from the primary economic and political structures of the state.[28]

Appendix D: Population Demographics and Vulnerabilities Assessment

The Population Demographics and Vulnerabilities Assessment establishes baseline data on race and ethnicity, income, education, and other indicators that can be used to explore spatial, racial, and economic disparities across the city. Understanding demographic and socioeconomic trends can help the city develop targeted policies to mitigate related vulnerabilities.

Key Findings

Findings from the Population Demographics and Vulnerabilities Assessment can be used to design targeted outreach and engagement approaches in the General Plan. Additionally, these findings can be used to develop and refine health equity, environmental justice, economic development, housing, and other policies in the general plan. Key findings include:

- **Santa Maria's youth have many social and economic vulnerabilities.** Youth and children aged 19 and younger make up 35% of the city's population in Santa Maria. Most of this population is in a mixed immigration status household and lives in poverty. Two census tracts (24.03 and 23.04) have the highest concentrations of youth and rates of single-parent households in Santa Barbara County. As they age into adulthood, they may follow in the steps of past generations, leaving Santa Maria if there are not enough jobs, housing, and other resources and opportunities. Access to education, housing, and economic opportunity are critical social determinants of health that not only shape future wealth, but also health risks and outcomes.
- **Engagement with the Black or African American community it critical.** One in three of all Santa Barbara County residents who identify as Black or African American lives in Santa Maria. However, there is not enough reliable data to assess their demographic conditions in the city. More direct outreach is needed to ensure their voice is part of the General Plan Update.
- **The city is segregated along the lines of various demographic factors.** There is a concentration of conditions and/or indicators of concern. A few notable trends: elderly population in the northeast; foreign-born and linguistic isolation in the northwest; White alone in the southeast. Patterns of segregation in areas with inequitable housing, low-income populations, and low levels of educational attainment.
- **The northwest area of the city has the most vulnerable census tracts across most indicators in this assessment.** The concentration of groups with multiple social and economic vulnerabilities in this area indicate a need for enhanced engagement and targeted policy and planning solutions that address both health and environmental justice issues.

Social Characteristics

The following section presents a profile of social characteristics in Santa Maria and focuses on identifying social vulnerabilities, or whether any population groups face disproportionate impacts compared to the broader population rate of each indicator.[29] Social vulnerability is a health equity and environmental justice term used to identify population groups that may be more susceptible to negative outcomes from health and environmental stresses and changes.[30] By identifying the spatial trends of these vulnerabilities, local jurisdictions can develop General Plan policies to mitigate the long-term impacts of inequities and segregation. [31]

Life Stages and Physical Conditions

Seniors, Youth, and Children

Research has shown that seniors, youth, and children have increased social vulnerability due to the effects of unhealthy environments and other hazards.[32] Further, seniors are more likely to have disabilities or other physical and mental health impairments related to old age, and in addition, many live alone.[33, 34]

Santa Maria's population is generally younger than the county's, resulting in a low concentration of elderly people—in most census tracts residents 65 years and older make up less than 15% of the population, sometimes as low as 3% (census tract 24.04). There is a slightly higher concentration of older adults in the northeast region of the city (census tract 22.11), where one in four residents are over the age of 65. In one quarter of these households (25%), older adults live alone.[35] Almost all census tracts in Santa Maria have a high percentage of youth (where 28% or more residents are under 18 years old). Two census tracts (24.03 and 23.04), located in the northwest area of the city, have the highest concentration of youth (42% and 41%) in all of Santa Barbara County.

Youth and children generally rely on individuals and institutions (e.g., schools, childcare facilities) for care, food, and socioemotional support, especially in times of emergencies. Santa Maria has a much younger population profile than the rest of the county (Figure 9). While 10% of the population in Santa Maria are older adults 65 years and older, youth and children 19 years and younger make up over a third of the population (35%).

Additionally, many census tracts in the city have a higher percentage of households where grandparents alone are responsible for grandchildren, compared to Santa Barbra County (.5 percent). Census tract 23.03 has the highest rate (5%) in the county, ten times higher than the county rate. Further, Santa Maria has some of the county's highest percentage of single-parent households, for both male and female single parents, especially in census tracts 24.03 and 24.04. Social safety nets and networks are important systems of support in child-rearing. In some cases, single parents have less access to these social resources, making them more likely to face increased mental and physical stress that can have a negative impact on child development.[36]

Figure 9. Age Histograms, City of Santa Maria and Santa Barbara County

Age	City of Santa Maria	Santa Barbara County
Under 5 years	10%	6%
5 to 9 years	9%	6%
10 to 14 years	8%	6%
15 to 19 years	8%	8%
20 to 24 years	9%	11%
25 to 29 years	7%	7%
30 to 34 years	8%	6%
35 to 39 years	7%	6%
40 to 44 years	6%	6%
45 to 49 years	6%	6%
50 to 54 years	5%	6%
55 to 59 years	5%	6%
60 to 64 years	4%	5%
65 to 69 years	3%	5%
70 to 74 years	2%	3%
75 to 79 years	2%	3%
80 to 84 years	1%	2%
85 years and over	2%	2%

■ City of Santa Maria   ■ Santa Barbara County
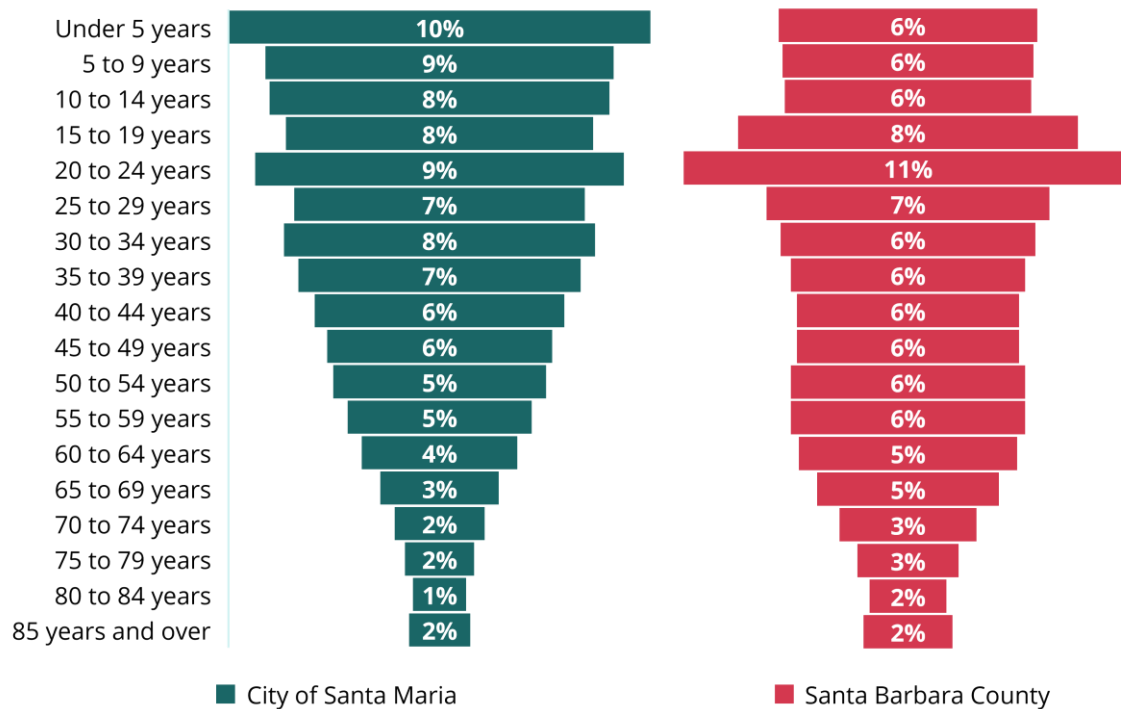
Source: ACS 2014-2018 5-Year Estimates, Table S0101 for City of Santa Maria and Santa Barbara County.

Persons with Disabilities

Persons with disabilities, especially those with limited access to care and support, can face additional barriers to managing their conditions. Some persons with disabilities have physical, cognitive, or other differences from the general population that limit their ability to prepare for, respond to, or recover from health and environmental stressors. Santa Maria has a lower percentage of the overall population with a disability (9%) compared to the county (10%), but a higher percentage of seniors 65 and older with a disability (40%) compared to the county (32%).[37] Three census tracts in the city have a high concentration of persons with disabilities, where at least 13% of residents are disabled: 20.07, 22.06, 22.11 (at 14% this tract is among the most concentrated of all Santa Barbara County tracts).

While decreased physical and cognitive abilities are a normal part of aging, older adults in Santa Maria have lower educational attainment rates and face other social and economic vulnerabilities compared to their counterparts in the county. These vulnerabilities may create additional barriers to wellness and healthcare access, contributing to higher rates of disability in older age.

People of Color

Today, Santa Maria is a majority (83%) person of color city with most people identifying as Hispanic or Latino (76%), Asian (5%), Black or African American (1%) or another race or ethnicity (1%). Figure 10 shows how the demographics of Santa Maria compare to Santa Barbara County as a whole. Santa Maria has the highest concentration of people of color in the entire county. Further, while the Black or African

American population only makes up 1% of the entire city population, one in three of all Santa Barbara County residents who identify as Black or African American live in Santa Maria.

Among people of color in Santa Maria, a few notable trends:

- The Hispanic or Latino population is mostly Mexican (96%), followed by Central American (2%) and South American or Other (2%).
- Most (73%) of the Asian alone population are Filipino (compared to 31% for the county), 9% are Korean (compared to 8% for the county), 4% are Chinese, excluding Taiwanese (compared to 27% for the county), and the remaining 15% are from various groups (including Vietnamese, Thai, Japanese, Indonesian, Hmong, Cambodian, and Asian Indian).

Figure 10. Race or Ethnicity of the Population, City of Santa Maria and Santa Barbara County
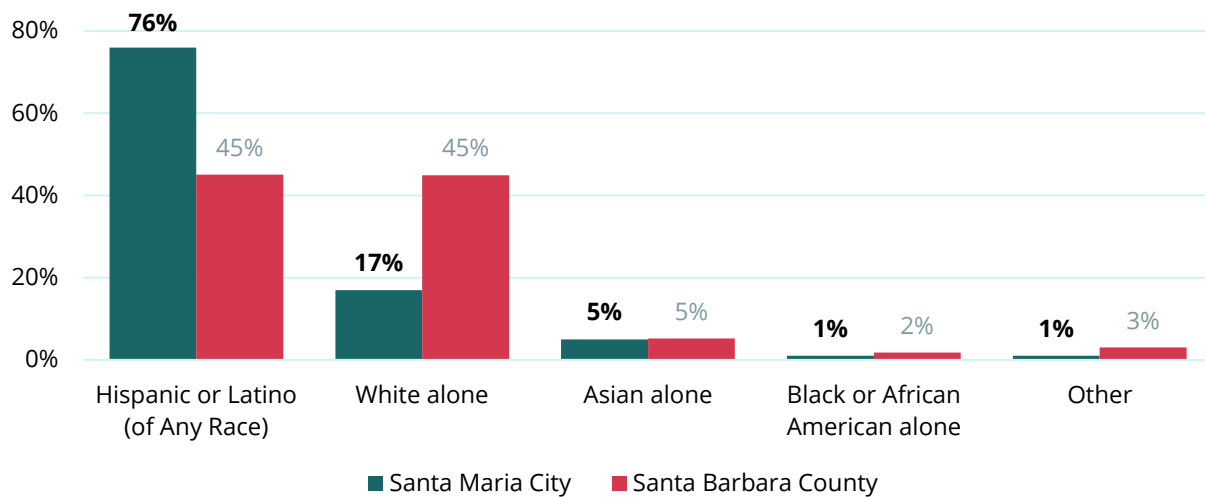
Source: ACS 2014-2018 5-Year Estimates, Table B03002 for City of Santa Maria and Santa Barbara County.

When looking at the demographics of the city by race or ethnicity and age together, there is a marked difference in the racial composition of the younger generations of Santa Marians, compared to older generations (Figure 11). This is commonly referred to as the racial generation gap—where younger cohorts are more diverse than older cohorts. This phenomenon can make people of color and youth more socially vulnerable if they do not feel represented in local government decisions.[38]

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Figure 11. Population by Age and Race or Ethnicity, City of Santa Maria*
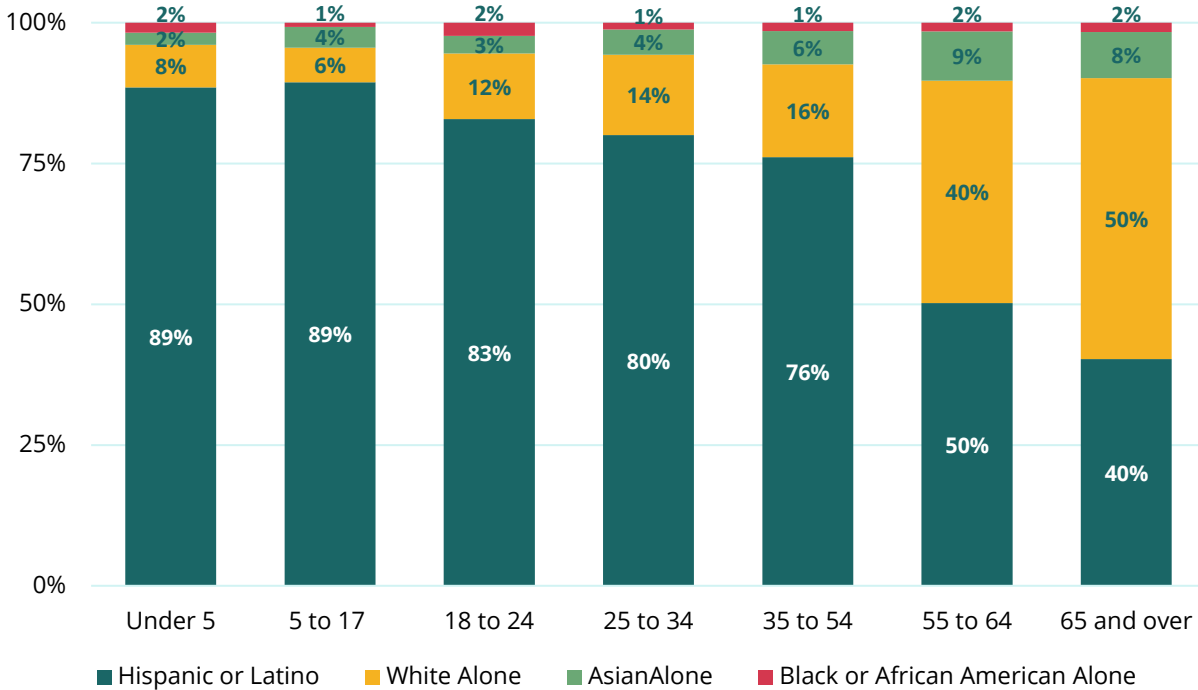
Source: ACS 2014-2018 5-Year Estimates, Tables B01001I, B01001H, B01001D, B01001 B for City of Santa Maria.
* Note that, for purposes of this comparison, racial or ethnic groups that make up the smallest shares of the population were excluded from the total, including: Native American or Alaska Native; Native Hawaiian or Other Pacific Islanders; Other Race; and Two or More Races.

Today, people of color live throughout the city, but some notable areas of concentration include:

- Hispanic or Latino people are most concentrated in the northwest census tracts of the city as noted in Figure 12, especially east of Blosser Road, west of Broadway Street, and north of Stowell Road (23.03, 23.04, 23.05, 24.03, 24.04).
- Asian people are most concentrated in census tracts south of Stowell Road, east of Broadway Street, west of 101, and north of Santa Maria Way (20.07 and 21.03); and in census tracts within or right outside of the city's northern boundaries (22.10 and 23.06).
- Black or African American people are more concentrated in the northeast census tracts of the city, east of 101 and north and south of Main Street (22.10 and 22.11).
- White alone people are most concentrated south of Betteravia Road, as noted in Figure 13, in the southernmost census tracts of the city (20.07 and 20.11).

Figure 12. Hispanic or Latino Population, City of Santa Maria
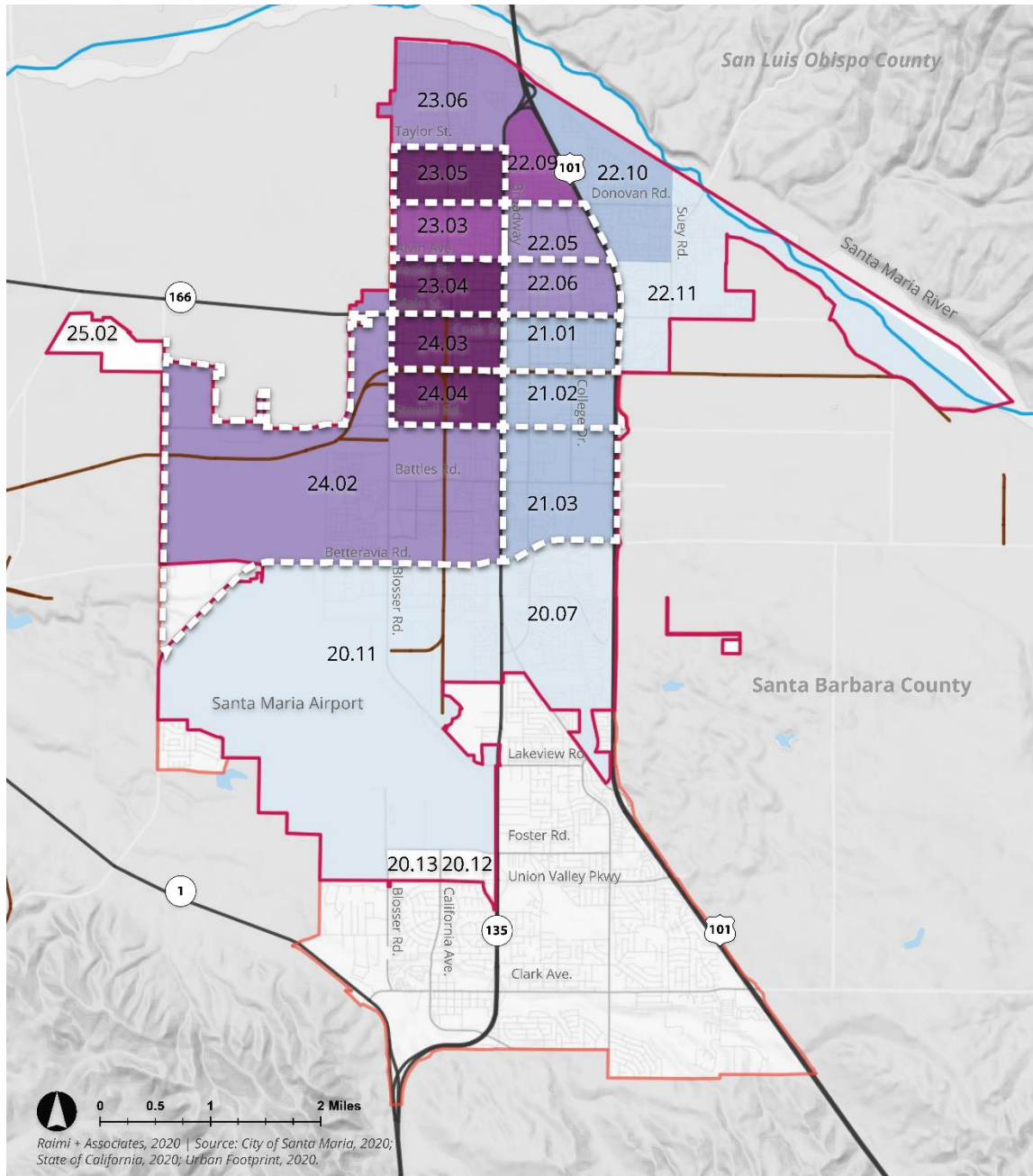
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

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Legend

City Limits	
Sphere of Influence	
Water	
Railroads	
Freeways/Highways	
Major Streets	
Local Streets	
Low-Income and High Pollution Burdened Census Tracts	

Percent Hispanic or Latino

	50% - 60%
	60% - 70%
	70% - 80%
	80% - 90%
	90% - 100%

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Figure 13. White Alone Population, City of Santa Maria

San Luis Obispo County

23.06
Taylor St.
23.05 22.09 101 22.10
Donovan Rd.
Broadway
23.03
Alvin Ave. 22.05
Fesler St.
166 23.04 22.06
Main St.
25.02 24.03 Cook St. 21.01
24.04 21.02
Stowell Rd.
Battles Rd.
24.02 21.03
Betteravia Rd.
20.07
20.11
Santa Maria Airport
Santa Barbara County
Lakeview Rd.
Foster Rd.
20.13 20.12 Union Valley Pkwy
1 Blosser Rd. California Ave. 135 101
Clark Ave.

Suey Rd.
Santa Maria River
College Dr.
Blosser Rd.

0 0.5 1 2 Miles

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.

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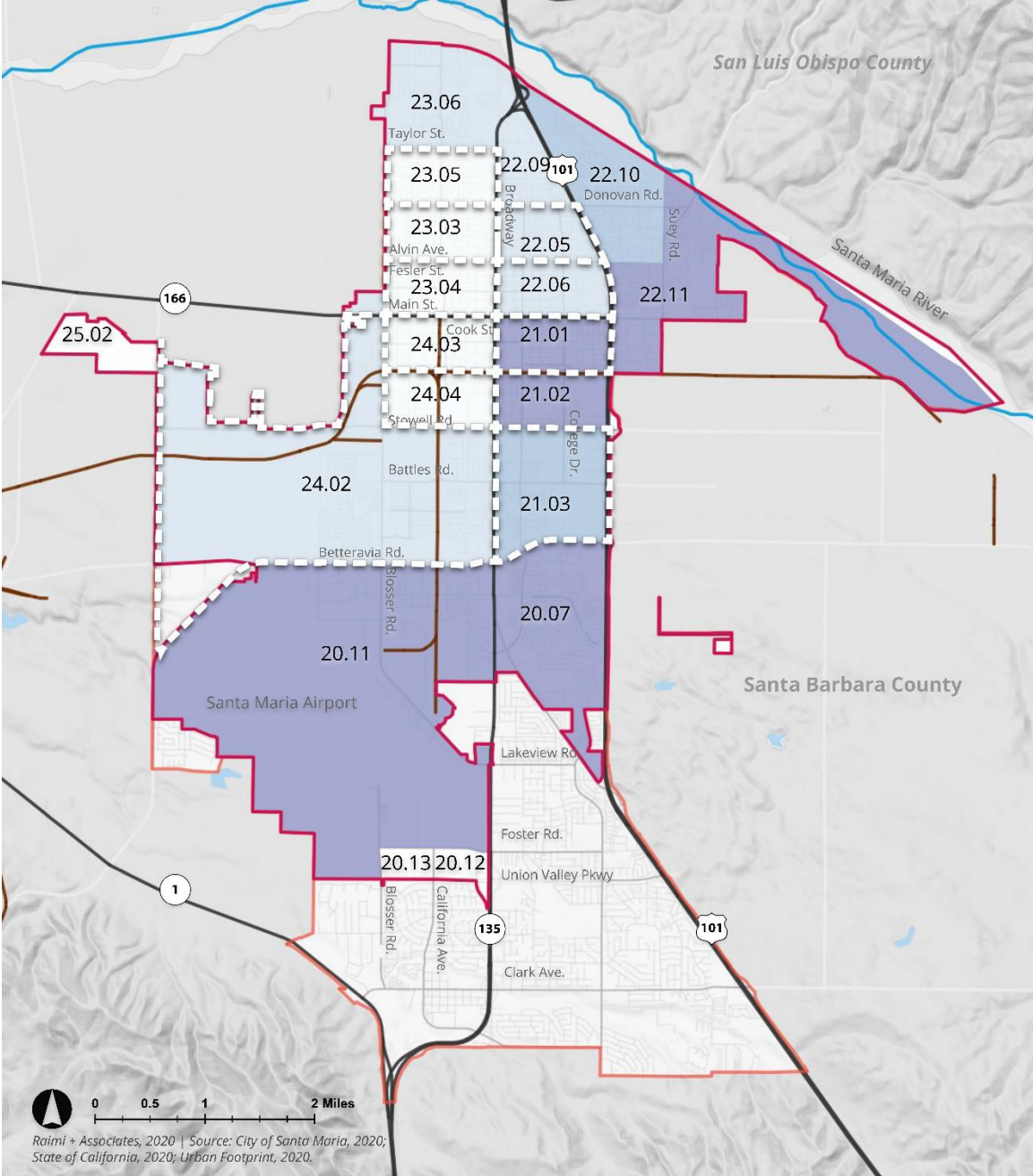**Legend**

City Limits
Sphere of Influence
Water
Railroads
Freeways/Highways
Major Streets
Local Streets
Low-Income and High
Pollution Burdened Census Tracts

Percent White Alone

< 10%
10% - 20%
20% - 30%
30% - 35%

Persons who are Foreign-Born

Immigrants to the United States face different health and social vulnerabilities at different stages of their migration. In the earlier stages of migration, immigrants face significant mental and physical health challenges, especially if they are undocumented immigrants.[39] As they adjust to life in the receiving country, many immigrants will find employment and housing, form new social ties, and build social capacity to navigate their surroundings. In these early stages, many immigrants tend to have more positive health outcomes and lower death rates than their native-born counterparts, likely due to health advantages gained in their home countries.[40] The social vulnerability of foreign-born people can therefore vary by how long they have been in the United States and their level of acclimation a new environment.

About one third of all people in Santa Maria are foreign-born (Figure 14). The immigrant population of Santa Maria has a lower rate of naturalization than in the county. Only 25% of the immigrant population in Santa Maria, compared to 34% in the county, have become United States citizens.[41] Foreign-born Santa Marians live throughout the city and are most concentrated in the northwest census tracts (between Betteravia Road, Broadway Avenue, Taylor Street, and Blosser Road), where at least half of all residents in each census tract (23.03, 23.04, 23.05, 24.03, and 24.04) were born outside of the United States. The foreign-born population may be naturalized U.S. citizens, lawful permanent residents, temporary visitors, or undocumented immigrants. Census tract 22.11, in the northeast area of the city, has the lowest percentage of foreign-born residents (12%).

Figure 14. Native and Foreign-Born, City of Santa Maria and Santa Barbara County
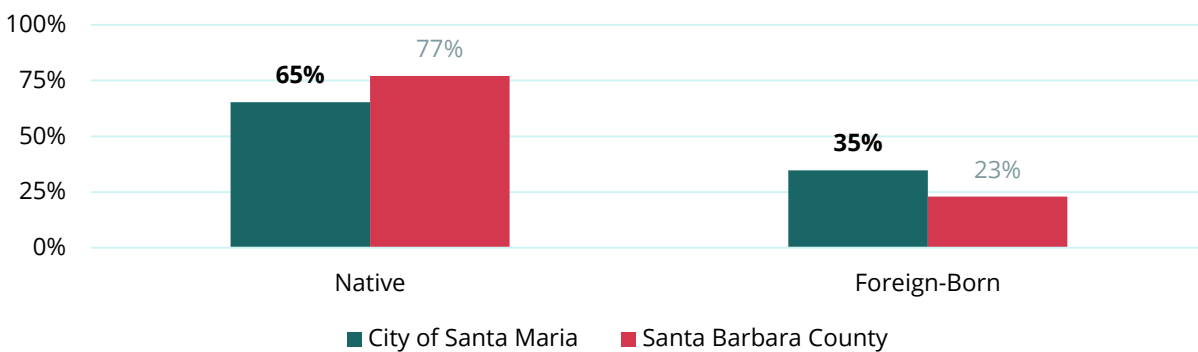
Source: ACS 2014-2018 5-Year Estimates, Table DP02 for City of Santa Maria and Santa Barbara County.

Linguistically Isolated Persons

An individual's ability to communicate in the dominant language of the United States can limit access to transportation, medical and social services, voting, children's schooling, and more.[42] In 1990, the US Census added the concept of "linguistic isolation" in recognition that entire households without the ability to communicate in English, including day-to-day activities and times of emergencies, need additional assistance in receiving services, direction, or other support.[43] In Santa Maria, 64% of residents speak a language other than English, compared to 40% in Santa Barbara County.[44]
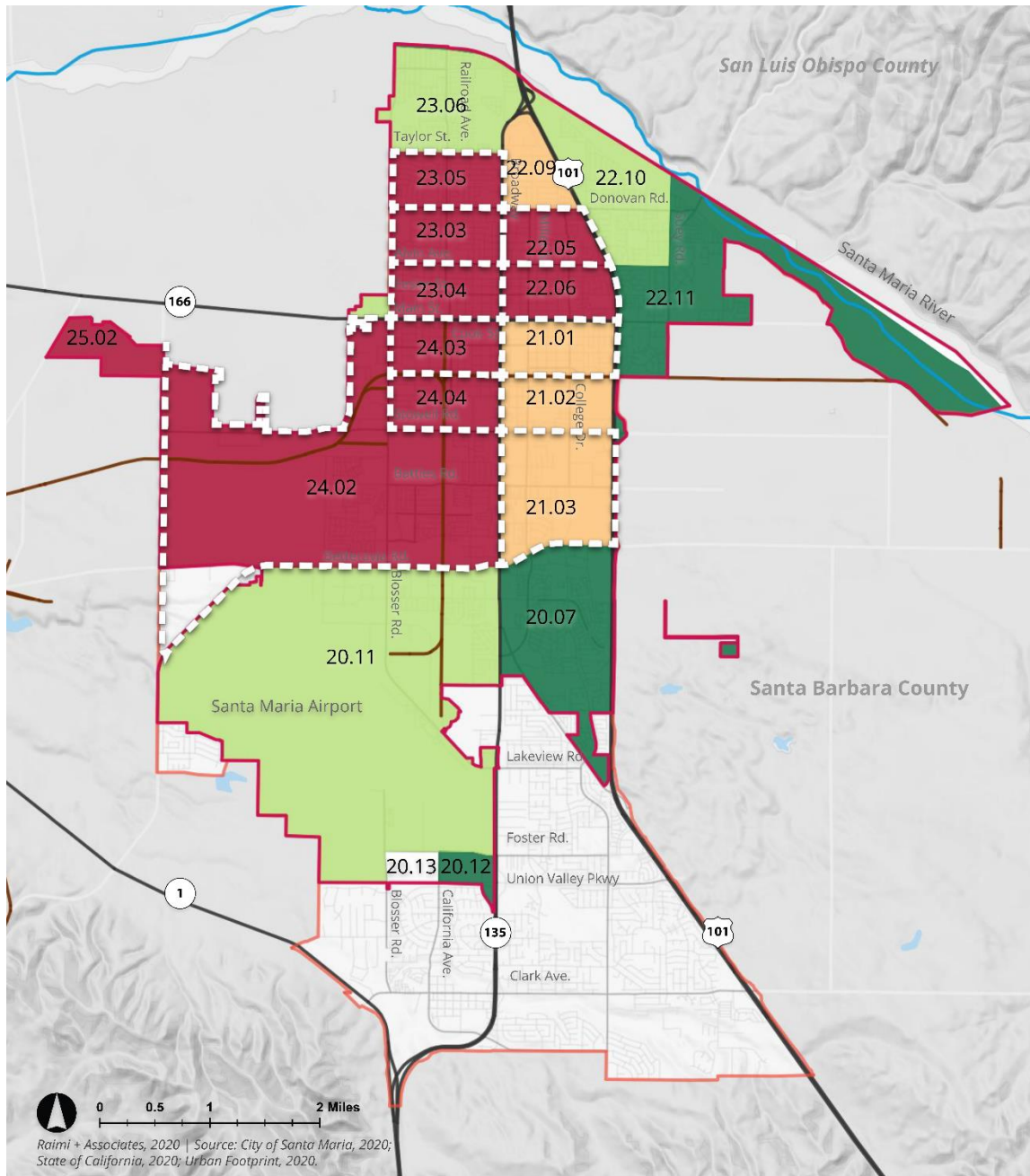
Santa Maria is home to 41% of the County of Santa Barbara's Spanish speakers and nearly half of the Spanish speakers who speak English less than "very well." Santa Maria is also home to most of the linguistically isolated county residents for other languages: 26% of all who speak Asian and Pacific Islander languages and 64% of all who speak "Other languages" live in the city (Table 4).

As shown in Figure 15, the census tracts with the highest rates of linguistically isolated people in Santa Maria represent the highest rates of linguistic isolation in Santa Barbara County: 21.02, 21.03, 22.05, 22.06, 22.09, 23.03, 23.04, 23.05, 24.02, 24.04 (the highest rate in the county). Except for a couple of census tracts, over 50% of all people in tracts north of Betteravia Road speak Spanish at home. Though there is not much data on the Mixteco population, many of these indigenous Mexican migrants speak only their native languages, which have no written record, or very limited Spanish.[45]

Table 4. Linguistic Isolation by Language, City of Santa Maria and Santa Barbara County

	City of Santa Maria		Santa Barbara County	
	Estimate	Percent	Estimate	Percent
Population 5 years and over	**94,658**		**415,382**	
English only	33,758	60%	250,346	36%
Language Other than English	60,900	40%	165,036	64%
Spanish*	**56,409**	**93%**	**137,388**	**83%**
Speak English less than "very well"	29,845	53%	62,647	46%
Other Indo-European Language*	**267**	**<1%**	**10,220**	**6%**
Speak English less than "very well"	73	27%	1697	17%
Asian and Pacific Islander languages*	**3,438**	**6%**	**15,031**	**9%**
Speak English less than "very well"	1,765	51%	6,703	45%
Other languages*	**786**	**1%**	**2,397**	**1%**
Speak English less than "very well"	662	84%	1,035	43%
* Notes: The percentages reflect "Language Other than English" as a denominator. Sources: American Community Survey, 5-Year Estimates for 2014-2018, Table DP02.				

Figure 15. Linguistically Isolated Households, City of Santa Maria

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

Legend

- City Limits
- Sphere of Influence
- Water
- Railroads
- Freeways/Highways
- Major Streets
- Local Streets
- Low-Income and High Pollution Burdened Census Tracts

CalEnviroScreen 3.0 (2018) - Linguistic Isolation Percentile

- 75 - 100% (Highest Scores)
- 50 - 75%
- 25 - 50%
- 0 - 25% (Lowest Scores)

Persons with Limited Educational Attainment

Educational attainment can shape how individuals and households navigate health, emergency, government, and other information. Across all age groups, Santa Marians have lower educational attainment compared to the county. In Santa Maria, the population has a lower degree of educational attainment than the county: 60% of residents 25 years and older have at least a high school degree, compared to 81% in the county. This educational achievement gap holds true across all age groups (Figure 16). When considering the gap by race or ethnicity, the differences are even more staggering: Latinos have a significantly lower rate educational attainment rate than all other racial or ethnic groups in the city (Figure 17). High levels of social vulnerability related to educational attainment may have implications for how people participate and engage with the planning process.

Figure 16. Percent of the Population by Age with a High School Diploma or Higher, City of Santa Maria and Santa Barbara County
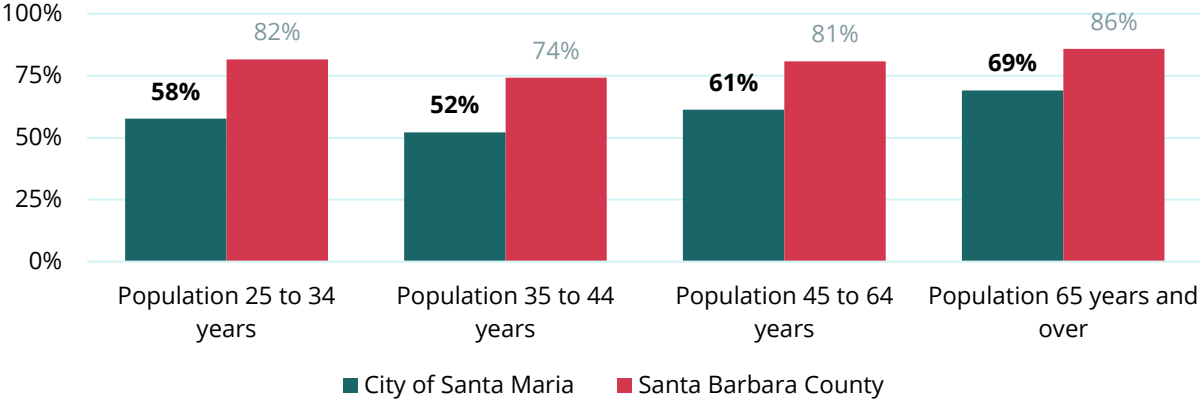
Source: ACS 2014-2018 5-Year Estimates, Table S1501 for City of Santa Maria and Santa Barbara County.

Figure 17. Educational Attainment by Race or Ethnicity, City of Santa Maria
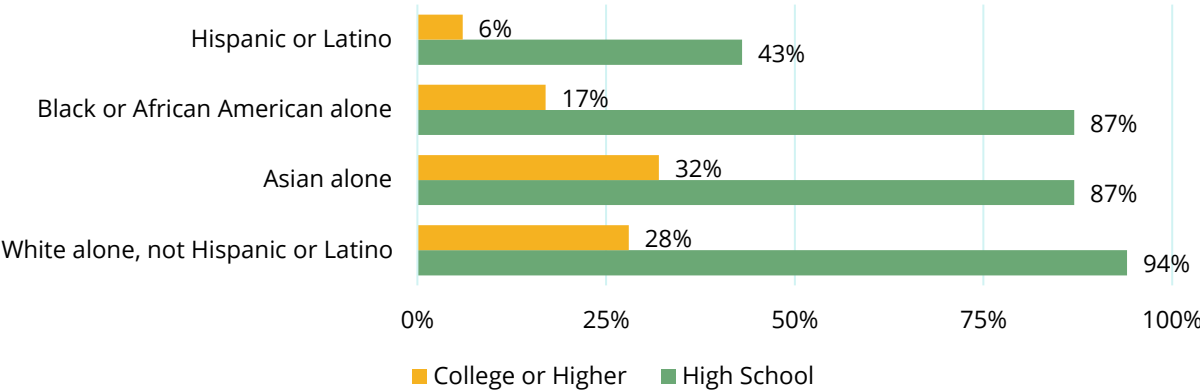
Source: ACS 2014-2018 5-Year Estimates, Table S1501 for City of Santa Maria and Santa Barbara County.

Economic Characteristics

The following presents a profile of economic characteristics in Santa Maria, focused on identifying economic vulnerabilities, or whether any population groups face disproportionate impacts compared to the broader population rate of each indicator. [46] Economic vulnerability is a term used to discuss individual and environmental factors that impact a population's ability to respond to and recover from economic stressors in their lives.[47]

Across all indicators in this subsection, research has shown that economic vulnerabilities, especially when experienced cumulatively, can increase mental distress, decrease wellness and physical health, and lead to delayed doctor visits because of high medical costs, among other negative impacts.[48]

Employment

Santa Maria has a similar unemployment rate to the county overall (6%), but a very different worker profile when comparing industries of employment. [49] The worker profile includes factors such as occupation, work schedule, wages, demographics, and other factors that are shaped by industry. Three times as many residents of Santa Maria (28%) than the county (9%) work in agriculture, forestry, fishing and hunting, and mining; these industry sectors are often associated with lower wages, strenuous physical work, and more exposure to outdoor working conditions and health hazards.[50]

Additionally, Santa Maria falls behind the county employment share for industries that are associated with higher wages and more controlled working environments: Educational services and health care and social assistance (8 percentage points behind); Professional, scientific, and management, and administrative and waste management services (5 percentage points behind); and Arts, entertainment, and recreation, and accommodation and food services (4 percentage points behind).[51]

Agricultural Workforce

The National Agricultural Workers Survey and the California Agricultural Workers Health Survey have shown that, in recent decades, most farm workers are young, foreign-born (mostly Mexican), low-income men with limited educational attainment.[52,53] Further, research on working and living conditions demonstrates disproportionate adverse health impacts, such as exposure to pesticides, poor air quality during wildfires, and limited access to COVID-19 Pandemic information arising from workers' social and economic vulnerabilities.[54]

The agricultural industry is the city's main economic driver, historically shaping migration and development patterns. A share of Santa Maria's agricultural workforce comes from visiting workers through the Federal Government's H-2A Visa Program. According to the Santa Maria Times, "the program was established in the 1980s to supplement a shortage of domestic agricultural workers and allow foreign nationals to temporarily enter the country for seasonal farm work... [workers] come to the country to complete some of the most back-breaking labor in the state—hand harvesting the fields. Once in California, the men will spend anywhere from two to 10 months picking crops." [55] Santa Maria is one of the top cities in California for H-2A workers: in Quarter 3 of Fiscal Year 2020, 5,175 workers were certified to work in the city, making up 23% of all total certified workers in California for that reporting period, second only to Salinas (29%).[56, 57]

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Employers are responsible for the housing, transportation, and meals provided to H-2A workers. Multiple layers of vulnerability impact the social and economic status of these temporary workers, many of whom are disconnected from the broader social fabric and community networks.[58] Additional information on farmworker housing is provided in the housing section of this report. The California Housing and Community Development Department is responsible for inspecting the quality of housing provided to workers, but no such agency is responsible for monitoring transportation or meals.

Income

Income impacts economic vulnerability more than any other factor. In Santa Maria, the median household income for the Hispanic or Latino population, which makes up a large share of farmworkers, is low compared to other racial or ethnic groups (Figure 18). Compared to the county, median household income is similar for White alone and Asian alone residents, but higher for Black of African American residents. These disparities may need to be explored more through the planning process, but may be explained by a combination of factors, including the age profile, worker profile, and other characteristics of Santa Maria.

Low-income households, defined as those earning 80% or less of the Santa Barbara County or Statewide area median income, live throughout Santa Maria, but are most concentrated in the northwest and downtown areas of the city (Figure 19).[59] These ten census tracts (21.01, 21.03, 22.05, 22.06, 23.03, 23.04, 23.05, 24.02, 24.03, 24.05) have also been identified as having high pollution exposures and high concentrations of people with multiple social or economic vulnerabilities.

Figure 18. Median Household Income by Race or Ethnicity in 2018 Inflation-Adjusted Dollars, City of Santa Maria and Santa Barbara County
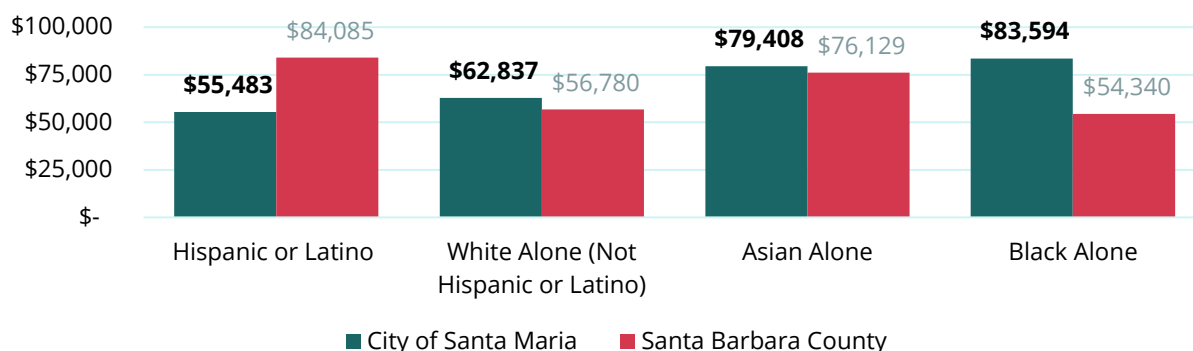
Source: ACS 2014-2018 5-Year Estimates, Tables B19013H, B19013I, B19013D, B19013B for City of Santa Maria and Santa Barbara County.

Figure 19. Low-Income Households, City of Santa Maria
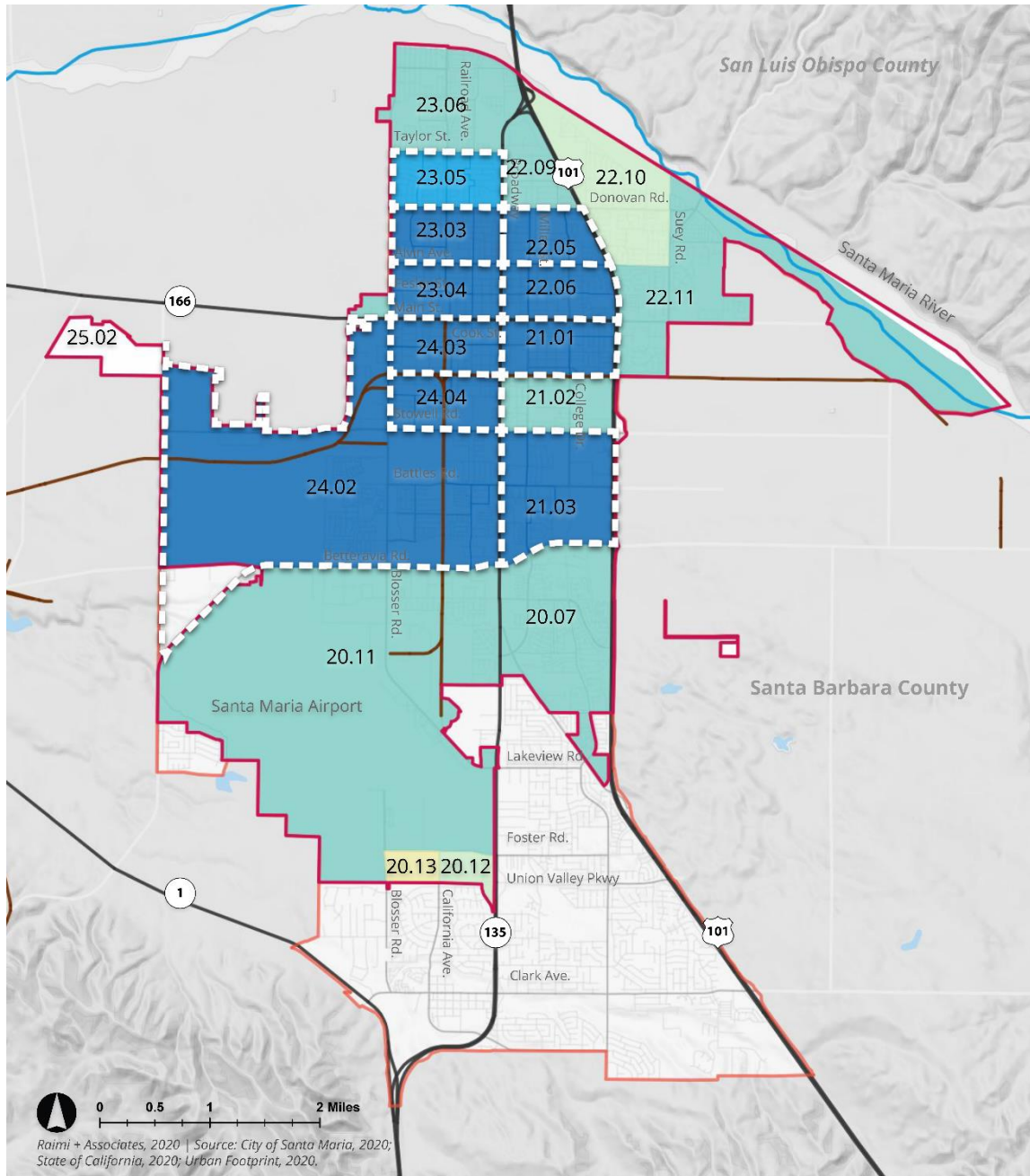
Legend

- City Limits
- Sphere of Influence
- Water
- Railroads
- Freeways/Highways
- Major Streets
- Local Streets
- Low-Income and High Pollution Burdened Census Tracts

Median Household Income

- $37,857 - $62,000
- $62,000 - $63,680
- $63,680 - $75,000
- $75,000 - $100,000
- $100,000 - $125,000

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

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Poverty

Poverty is a factor that is closely related to income. Households with lower incomes are more likely to live in poverty. There is a large body of evidence linking poverty with negative health outcomes in communities, suggesting that efforts to address income inequality and other social and economic vulnerabilities can improve health.[60] Santa Maria has a slightly higher poverty rate for all people (17%) compared to the county (15%) and a significantly higher poverty rate for youth and children under 18 (25%) compared to the county (18%). Poverty rates by race or ethnicity in Santa Maria are very similar to those in Santa Barbara County for the White alone and Hispanic or Latino populations, but very different for the Asian alone and Black or African American alone populations (Figure 20).

Figure 20. Poverty by Race or Ethnicity, City of Santa Maria and Santa Barbara County
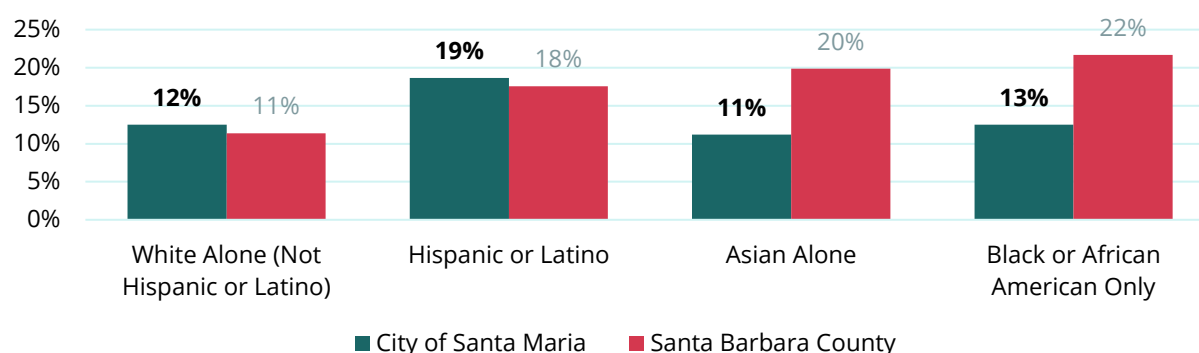
Source: ACS 2014-2018 5-Year Estimates, Tables B17001H, B17001I, B17001D, B17001B for City of Santa Maria and Santa Barbara County.

People across all age groups live in poverty in Santa Maria (Figure 21): the Asian alone elderly population makes up 8% of the total population in Santa Maria and 16% of the elderly who are living in poverty. Similarly, Hispanic or Latino residents make up a smaller share of the total population and a larger share of the population in poverty for the two oldest age groups.

Figure 21. Poverty by Age Group and Race or Ethnicity, City of Santa Maria
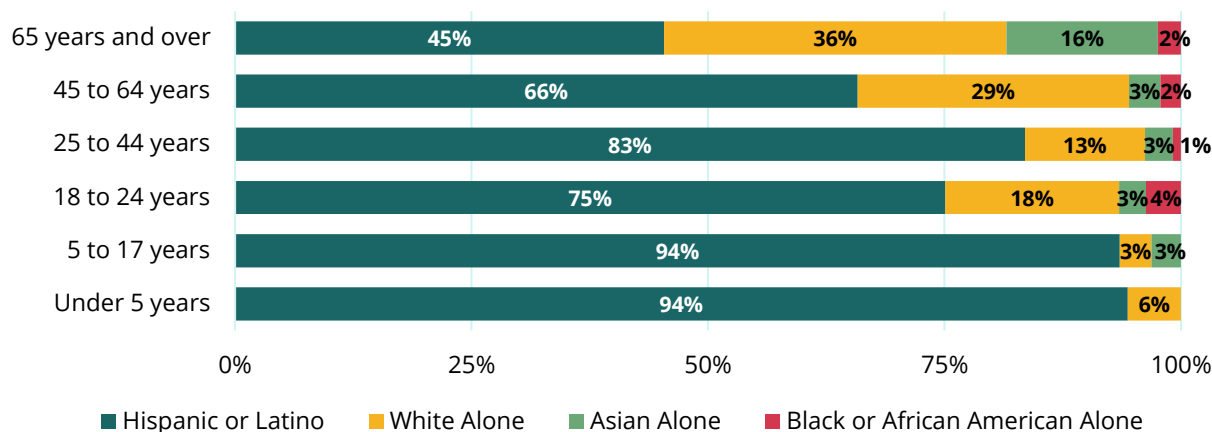
Age Group	Hispanic or Latino	White Alone	Asian Alone	Black or African American Alone
65 years and over	45%	36%	16%	2%
45 to 64 years	66%	29%	3%	2%
25 to 44 years	83%	13%	3%	1%
18 to 24 years	75%	18%	3%	4%
5 to 17 years	94%		3%	3%
Under 5 years	94%	6%		

■ Hispanic or Latino ■ White Alone ■ Asian Alone ■ Black or African American Alone

Source: ACS 2014-2018 5-Year Estimates, Tables B17001H, B17001I, B17001D, B17001B for City of Santa Maria and Santa Barbara County.

Tenure, Affordability, and Homelessness

Research has shown various factors related to housing affect health and other outcomes.[61, 62] Renters, homeowners, people living in group housing, people experiencing homelessness, and people with other housing arrangements may face unique challenges as a group, while being negatively impacted by housing instability, poor housing location, habitability conditions, housing costs, and other factors.[63]

Tenure

Housing tenure can refer to two concepts: (1) whether a housing unit is owner- or renter-occupied and (2) how long an individual or household has lived in their housing unit. Both homeownership and neighborhood-level factors have been shown to promote positive mental and physical health outcomes.[64, 65] Research indicates that homeownership is a positive health resource and that neighborhood amenities can enhance health for both owner- and renter-occupied households. For renter-occupied households, and particularly for low-income renter-occupied households, improvements in the second definition of tenure, such as displacement prevention or rent stabilization, can ensure they benefit from neighborhood amenities over the long-term.[66]

In Santa Maria, household tenure is almost evenly split by owners (49%) and renters (51%), similar to the county split (52% owner-occupied and 48% renter-occupied).[67] According to the data presented in the Socio-Economic Existing Conditions Report, White alone householders have the highest rates of tenure in both owner (38%) and renter (21%) occupancy, compared to non-White householders with owner (21%) and renter (16%) occupancy. The lowest rates of owner occupancy are in the northwest area of the city, where more single-parent households and more children and youth live: census tracts 23.04 (22%), 24.03 (9%), and 24.04 (19%). All census tracts that are low-income have less than the citywide percentage (49%) of owner occupancy, except for census tracts 23.03 (57%) and 23.05 (50%), which have a high rate of owner occupancy newer housing stock (built since the 1960s). All other low-income and low owner occupancy census tracts have the highest concentrations of housing stock built prior to the 1950s.[68]

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Housing-Burdened Households

Housing cost burden refers to how much of a household's income is spent on housing costs. Households that spend 30% or more of their income on rent or mortgage-related costs are considered housing cost-burdened and those that spend 50% or more are considered severely housing cost-burdened. For renters, housing cost is gross rent (contract rent plus utilities), and for owners, housing cost includes mortgage payment, utilities, association fees, insurance, and real estate taxes. Housing-burdened households are located throughout the City of Santa Maria (Figures 22 and 23). However, there is a higher concentration in census tracts identified as low-income, particularly in the northwest and central areas of the city. As shown in Figure 22, census tract 23.05 has the highest concentration (over 30%) of housing cost-burdened households. As shown in Figure 23, census tract 23.03 has the highest concentration of severely cost-burdened households (over 30%).

Figure 22. Housing-Burdened Households, City of Santa Maria
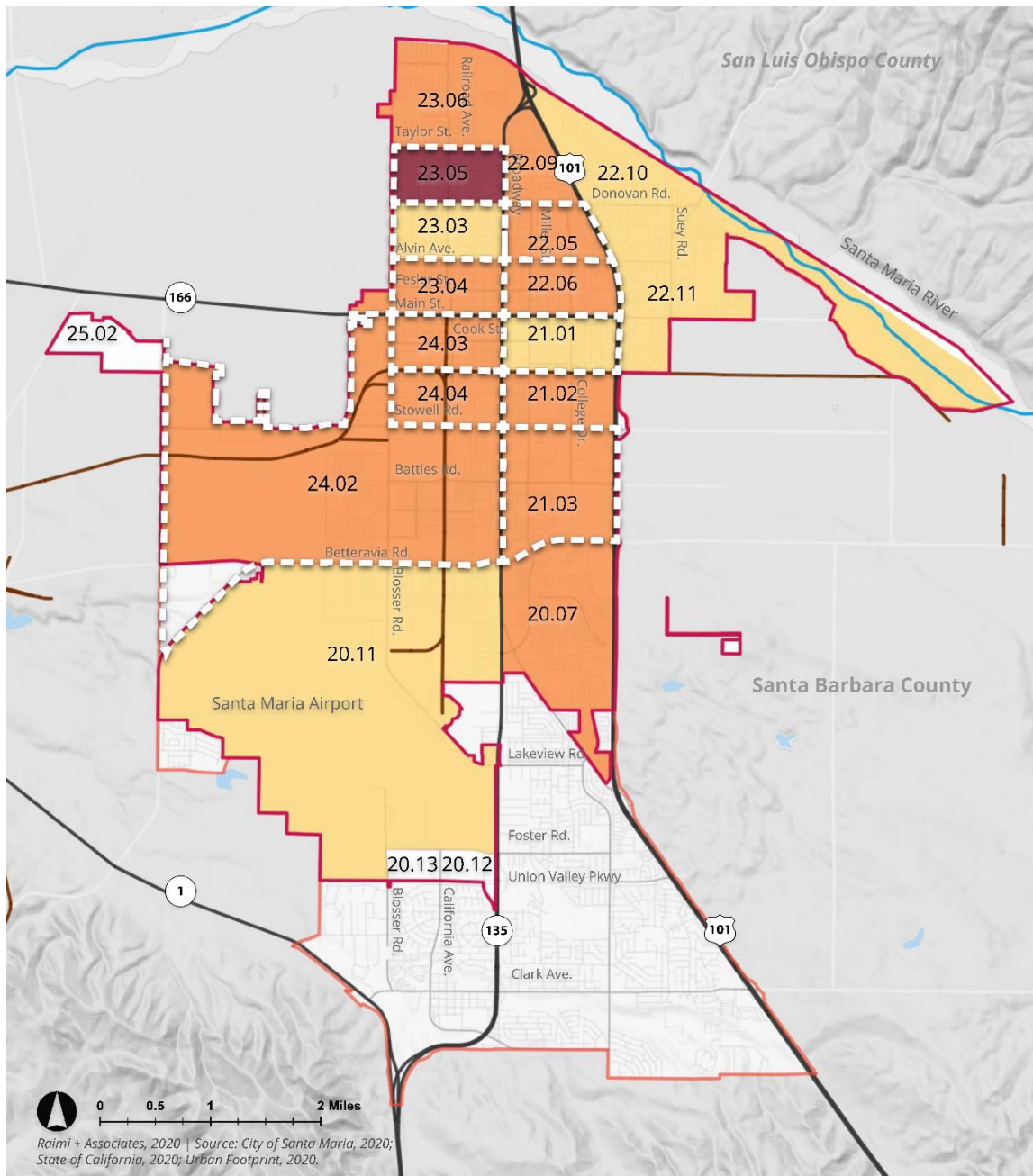
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.

Legend

☐ City Limits
☐ Sphere of Influence
▬ Water
▬ Railroads
▬ Freeways/Highways
▬ Major Streets
▬ Local Streets
⬚ Low-Income and High
   Pollution Burdened Census Tracts

Percent Housing Cost Burdened

☐ 14.4 - 20%
☐ 20% - 30%
☐ > 30%

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General Plan

Figure 23. Severely Housing-Burdened Households, City of Santa Maria

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

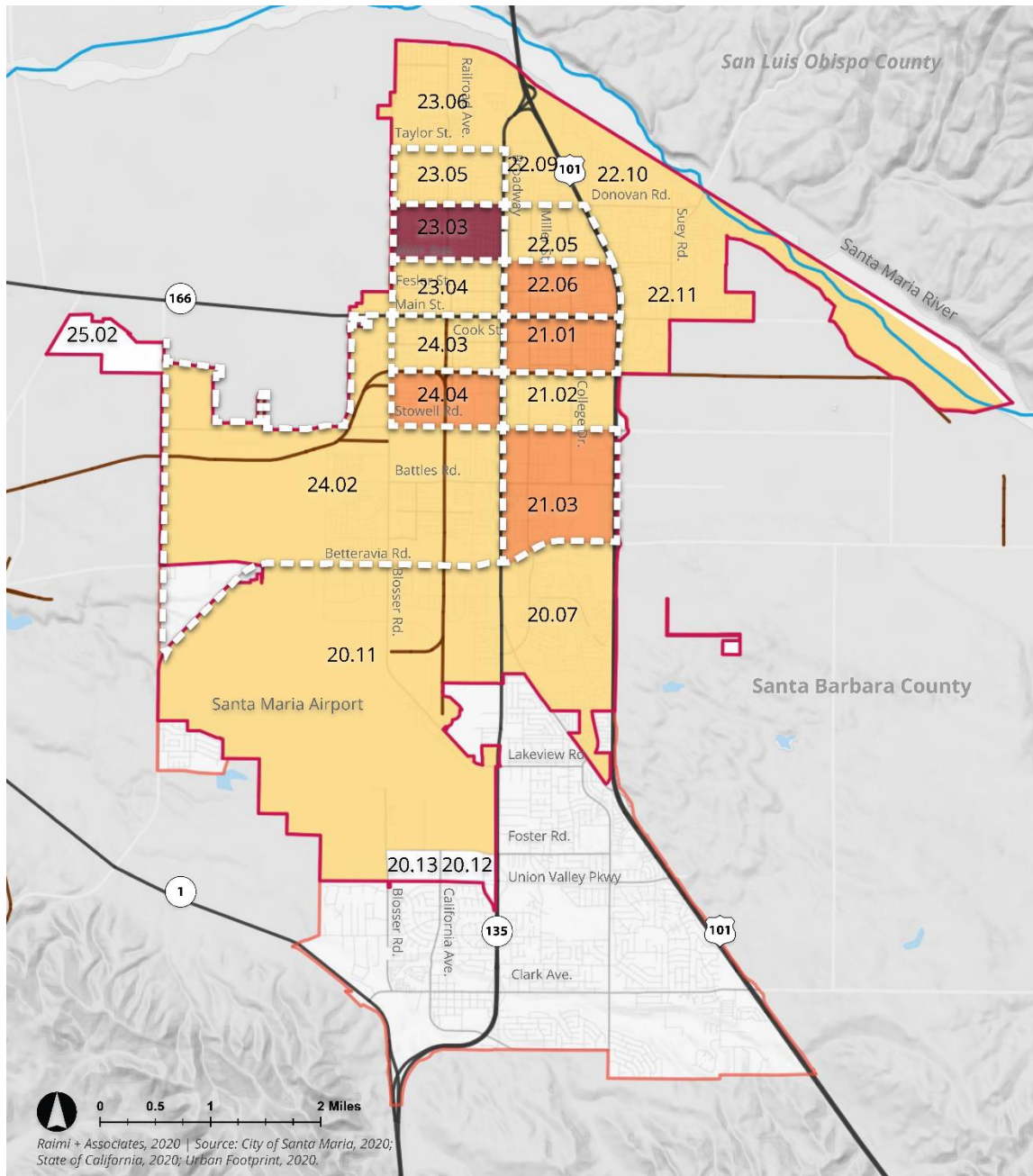Santa Maria
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Legend

- ☐ City Limits
- ☐ Sphere of Influence
- ☐ Water
- ▬ Railroads
- ▬ Freeways/Highways
- ▬ Major Streets
- ▬ Local Streets
- ▦ Low-Income and High Pollution Burdened Census Tracts

Percent Severely Housing Cost-Burdened

- ☐ 13.2 - 20%
- ☐ 20 - 30%
- ☐ > 30%

People Experiencing Homelessness

In recent years, the number of people experiencing homelessness has continued to increase in cities across California, often resulting in local emergency declarations aimed at protecting the health and well-being of people experiencing homelessness. In Santa Barbara County, the number of individuals counted in the last five years has fluctuated around 1,800.[69] Of people surveyed that experienced homelessness in 2019, most had acute and chronic health conditions or experienced poor mental health and nearly a quarter (23%) were chronically homeless. Additionally, 18% were either unaccompanied minors or young adults 18-24 without children.[70]

In Santa Maria, the number of people counted as experiencing homeless decreased from 464 in 2019 to 382 in 2020.[71] Though these figures might change from year-to-year, they may have also changed more in recent months of 2020 due to the COVID-19 Pandemic, which has overwhelmed many shelters, facilities, and services throughout the county as people experience greater economic instability.[72]

While the City of Santa Maria already works closely and successfully with nonprofit and county partners to build permanent supportive housing, create overnight emergency shelter commensurate with the homeless population, identify housing units for people with project-based vouchers, and implement other strategies, the impacts of the COVID-19 Pandemic may require further study of this crisis at a local level through the General Plan Update.[73]

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Appendix E: Health Assessment

The Health Assessment is an overview of the health outcomes and well-being of the population using indicators to better understand the prevalence of disease in the community. Having a sense of data related to life expectancy, leading causes of death, and incidence of chronic disease can highlight areas where the city is doing well and where there is room for improvements in the physical environment.

Key Findings

Health outcomes and behaviors are influenced by personal choices of an individual and by a myriad of factors outside of the individual's control, including economic stability, environmental pollution and safety, and the built environment of neighborhoods and workplaces. Data and background information for pollution exposures in Santa Maria discussed in this section comes from the Healthy Places Index and the County of Santa Barbara Health Department, unless otherwise noted. Specific health and well-being trends that may be addressed in Santa Maria through the planning process include:

- Specific population groups that are disproportionately impacted by chronic disease:
  - African Americans tend to have higher rates of heart disease, cancer, and lung diseases.
  - Males have higher rates of heart disease, cancer, and diabetes than women.
  - Women, Latinos, and African Americans are most impacted by Alzheimer's disease.
- Residents living in low-income census tracts in the city have the least healthy rates of:
  - Heart disease, cancer, and lung diseases (including asthma), which can have direct links to the environmental effects of pollution.
  - Diabetes and obesity, which are also risk factors for heart disease and cancer.
  - Chronic lower respiratory diseases, despite only representing a small number of county deaths.
- People living in zip code 93454 in Santa Maria, which includes various low-income census tracts, are impacted by the highest age adjusted death rate across the county (1,674 deaths per 100,000)
- A perceived sense of poor mental health in census tracts where people also identify a lack of physical activity.

Chronic Diseases

There are four chronic diseases (cardiovascular disease [heart disease and strokes], cancer, lung disease, and type 2 diabetes) that cause over 50% of all deaths in Santa Barbara County and nationwide. Healthy behaviors that promote a nutritious diet, support physical activity, and eliminate tobacco use are important to promoting positive health outcomes. The built environment plays a critical role – it can expose people to toxins or pollutants and influence lifestyles that contribute to chronic disease. Evidence suggests that unmet mental health needs also contribute to chronic disease and death.[74] This section reviews three of the leading causes of death across the county (cancer, heart disease, and Alzheimer's) and includes a summary of related risk factors.

Leading Causes of Death

The leading causes of death refer to mortality based on the frequency of their occurrence. In 2017, there were a total of 3,006 deaths of Santa Barbara county residents. All types of cancer (634 deaths) and heart disease (753 deaths) were the underlying cause of almost half (46%) of all deaths.[75] Additionally, the top two leading causes of death—cancer and heart disease—share some risk factors, including poor diet and lack of physical activity.

Alzheimer's is the third leading cause of death in the county. Research suggests a relationship between the development of cognitive decline and risk factors linked to the leading causes of death in the county—specifically, cardiovascular diseases, diabetes, and obesity.[76]

Cancer

Cancer is the second leading cause of death in the United States with close to 600,000 annual deaths. In 2010, nearly 32% of all cancer deaths in Santa Barbara County took place in North County, compared to 21% in Mid County, and 47% in South County.[77] Santa Maria is located in North County and includes seven high poverty census tracts. According to the Healthy Places Index, census tracts 20.11, 21.02, 22.11 have the highest percentage of adults diagnosed with cancer (except skin cancer) in the city (Figure 24). As noted in Figure 24, high poverty census tracts are high need areas in which 20% or more of individuals are living below 100% of the Federal Poverty Thresholds. Nearly half of all cancer deaths (49%) took place in high poverty areas across the county, representing a disproportionate burden.[78] Of all cancer deaths in high poverty areas, 37% took place in high poverty areas in Santa Maria.

Many types of cancer can be treated when identified early. In some cases, social and built environment factors can positively shape health outcomes. For instance, changes to lifestyle and risk behaviors, including promoting physical activity and healthy eating, can complement planning interventions, including land use and transportation decisions. Finally, policy changes can address and mitigate negative health and environmental impacts, including the burden of toxins and pollution exposure.

Figure 24. Cancer, City of Santa Maria
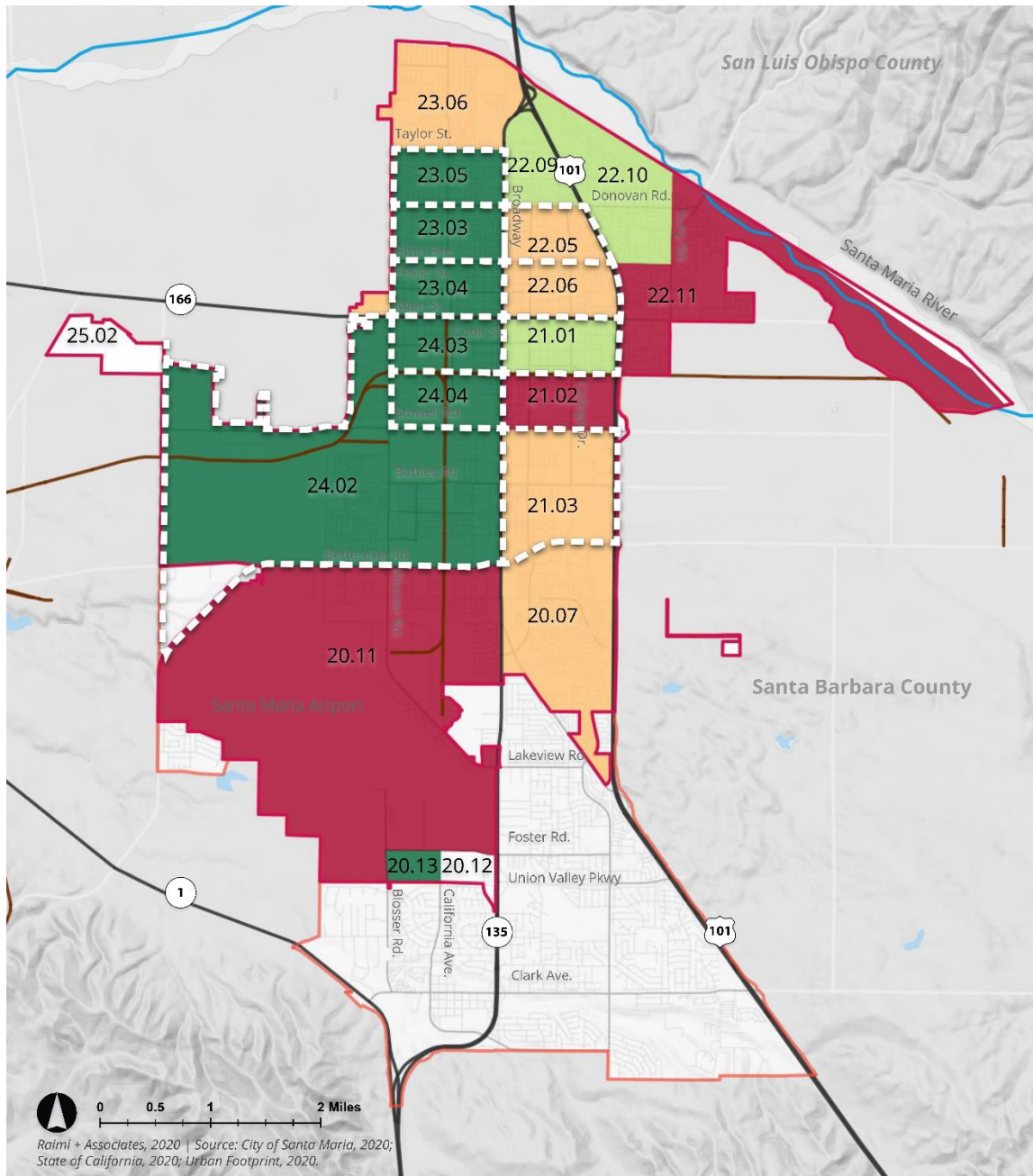
San Luis Obispo County

23.06
Taylor St.

23.05 22.09 [101] 22.10
                      Donovan Rd.

23.03   22.05
Broadway

23.04   22.06   22.11

[166]

25.02   24.03   21.01

         24.04   21.02

              21.03

24.02

              20.07

Santa Barbara County

20.11

Santa Maria Airport

Lakeview Rd.

Foster Rd.

20.13 20.12   Union Valley Pkwy

[1]

Blosser Rd. California Ave. [135]

Clark Ave.

[101]

Santa Maria River

0   0.5   1   2 Miles

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.

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Legend

- ▭ City Limits
- ▭ Sphere of Influence
- ▭ Water
- ▬ Railroads
- ▬ Freeways/Highways
- ▬ Major Streets
- ▬ Local Streets
- ⬚ Low-Income and High Pollution Burdened Census Tracts

Healthy Places Index (2018) - Cancer Percentile Score

- 🟥 0 - 25% (Lowest Scores)
- 🟧 25 - 50%
- 🟩 50 - 75%
- 🟩 75 - 100% (Highest Scores)

Heart Diseases

Heart disease is a general term used to refer to a range of diseases that affect the heart. Some types of heart disease include diseases of the blood vessels (such as coronary artery disease); heart rhythm problems (arrhythmias); and heart conditions that people are born with (congenital heart defects). As stated earlier, heart disease is the second leading cause of death in Santa Barbara County – resulting in one of four deaths.[79] Heart diseases accounted for 714 of all deaths in Santa Barbara County – nearly 30% of these deaths were in North County. While half of all deaths took place in zip codes with high poverty across Santa Barbara County, approximately 36% of these deaths were in Santa Maria.[80]

As noted in Figure 25, unhealthy rates of heart disease are prevalent in areas east of Broadway Avenue and in proximity to the Santa Maria Airport. These areas coincide with those that have higher percentages of older adults and higher percentages of non-Hispanic or Latino residents. According to the Healthy Places Index, census tracts 20.11, 21.02, 22.11 have the least healthy scores of both coronary heart disease and cancer in the city. Genetics and biology may help explain the incidence of both these diseases, but shared risk factors, including unhealthy diet, tobacco smoking, obesity, diabetes, and hypertension, also play a role in understanding this relationship. A healthy and active lifestyle, including regular physical activity that is performed on most days of the week, can decrease the risk of developing or dying from heart disease.[81]

Figure 25. Heart Disease, City of Santa Maria

Legend

- City Limits
- Sphere of Influence
- Water
- Railroads
- Freeways/Highways
- Major Streets
- Local Streets
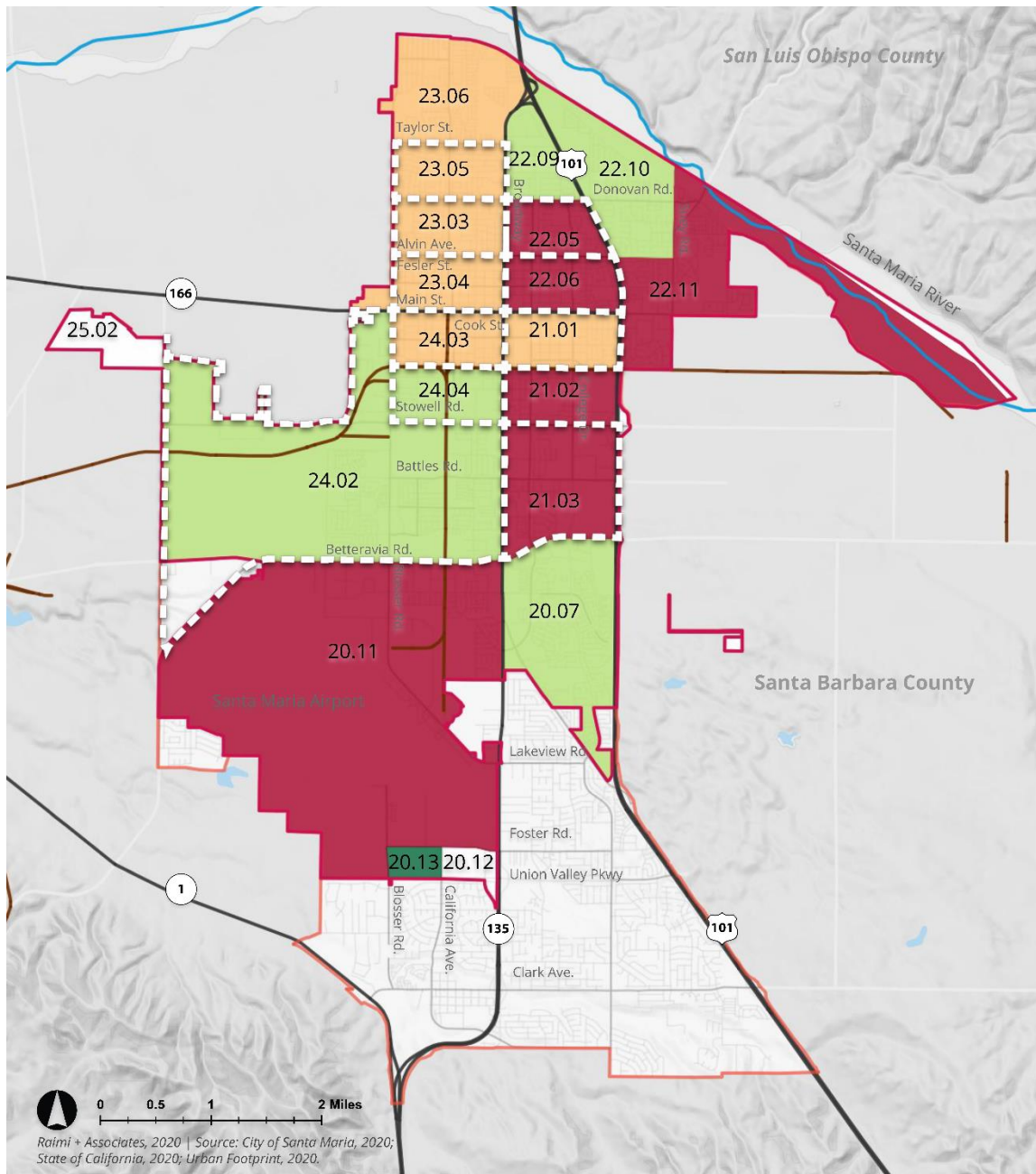- Low-Income and High Pollution Burdened Census Tracts

Healthy Places Index (2018) - Coronary Heart Disease Percentile Score

- 0 - 25% (Lowest Scores)
- 25 - 50%
- 50 - 75%
- 75 - 100% (Highest Scores)

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Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

Alzheimer's

Alzheimer's is the most common form of dementia. A person's genetics can predispose some individuals to the disease, but increasing age is the most powerful risk factor. The disease is most common among adults age 65 and older, but the risk doubles every five years beyond age 65. About one-third of adults 85 and older have Alzheimer's disease.[82] In Santa Barbara County, Alzheimer's disease is the third leading cause of death. Additionally, Alzheimer's disease was the third-leading cause of death for women (152 deaths), but only the sixth-leading cause of death for men (63 deaths).[83] Additionally, in Santa Barbara County, Latinos are about 1.5 times and African-Americans about two times as likely to have Alzheimer's and other dementias as older whites.[84]

While the factors contributing to the risk of onset differ from person to person, keeping the brain healthy can help avoid the disease. Routine exercise, nutritious diet, and sufficient sleep are important healthy habits. Additionally, there is evidence suggesting that cognitive stimulation and social engagement are also associated with brain and physical health. Studies have shown that the built environment plays a major role in promoting the health and well-being of those living with dementia.[85]

Risk Factors

Identifying which risk factors are associated with certain causes of death can help prevent disease and keep people healthier. For instance, obesity and diabetes are both risk factors for heart disease. Smoking and exposure to certain toxins can also be risk factors for lung cancer. Additionally, many chronic health conditions, including obesity, diabetes, and asthma, all disproportionately impact racial and ethnic populations. Better access to nutritious food, greener environments, and more opportunities for physical activity could reduce residents' vulnerability to these types of diseases. Poverty, low levels of education, and lack of access to health care may also contribute to premature death.

How we plan and prioritize growth for the future can determine how healthy residents are in the long run. Strategies that focus on health behaviors, health care, socioeconomic status, and the environment are key to improving health outcomes. Along with supporting the development of healthy and equitable communities, Santa Maria must address direct measures of population health that impact quality of life. This section provides a general overview of the current health conditions related to weight status, levels of physical activity, diabetes, asthma, mental health and substance abuse, and heath care access in Santa Maria.

Obesity

Obesity is the most prevalent, chronic, and relapsing health disorder of the 21st century. It is a leading cause of deaths and disability across the nation and results in increased healthcare utilization and healthcare costs. California has experienced a dramatic increase in obesity during the last few decades. In 1985, less than 10% of California's population was obese; by 2010, over 20% of Californians were considered obese. According to the Healthy Places Index, census tracts 23.05, 23.03, 23.04, 24.03, 24.04, and 21.03 have the least healthy scores of obesity in the city (Figure 26).

In Santa Maria, 36% of adults are obese, a higher rate than the county (27%). Young children in the city (ages 2-11) also have a higher percentage of being overweight (23%) than the county (19%) or the state (15%). The prevalence of obesity in adults can also increase with sedentary lifestyles. In Santa Maria, more than half of adults (61%) walk less than 150 minutes a week.

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Figure 26. Obesity, City of Santa Maria
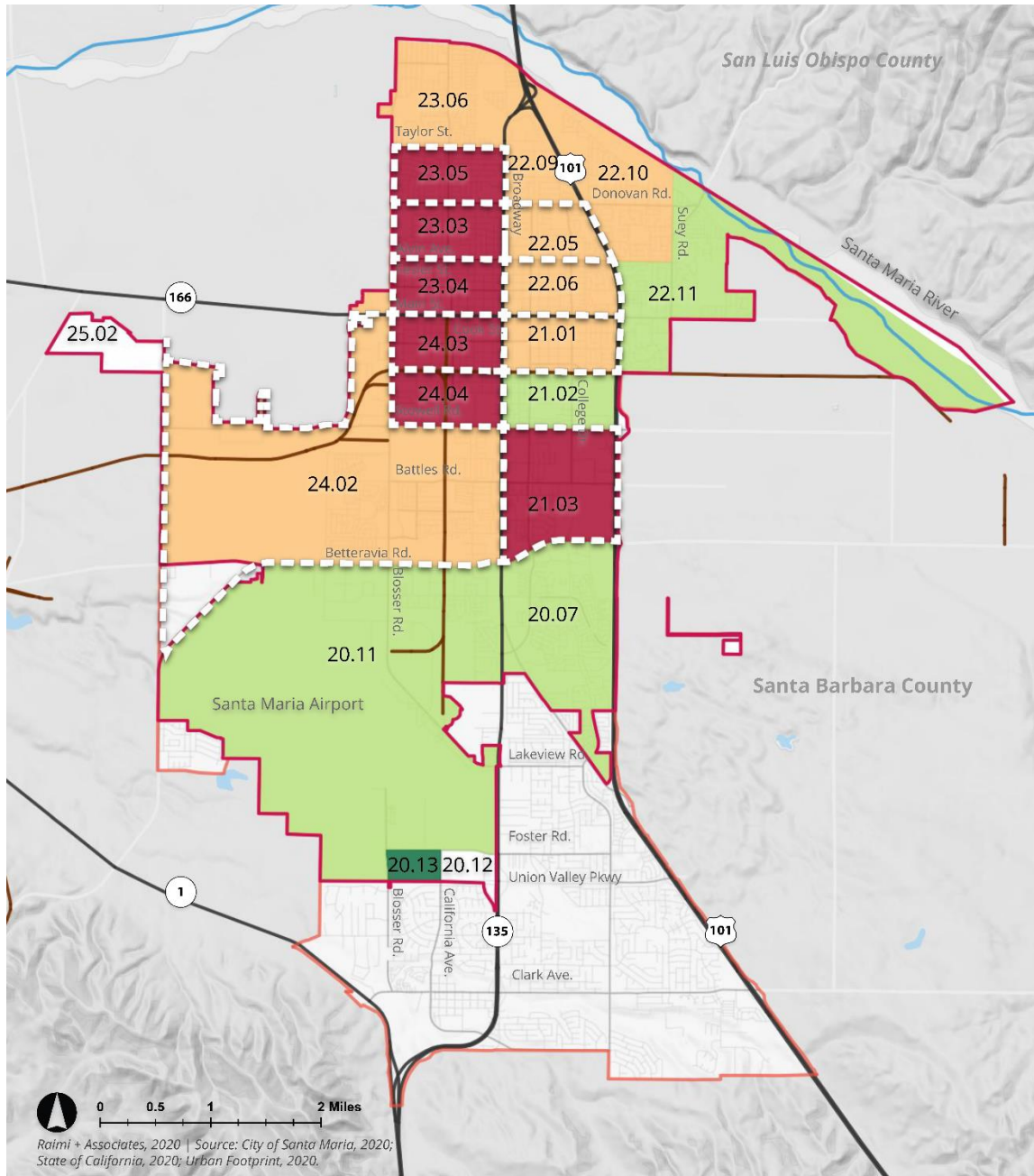
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

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Legend

- ▭ City Limits
- ▭ Sphere of Influence
- ▭ Water
- ▬ Railroads
- ▬ Freeways/Highways
- ▬ Major Streets
- ▬ Local Streets
- ▭ Low-Income and High Pollution Burdened Census Tracts

Healthy Places Index (2018) - Obesity Percentile Score

- �" 0 - 25% (Lowest Scores)
- ▪ 25 - 50%
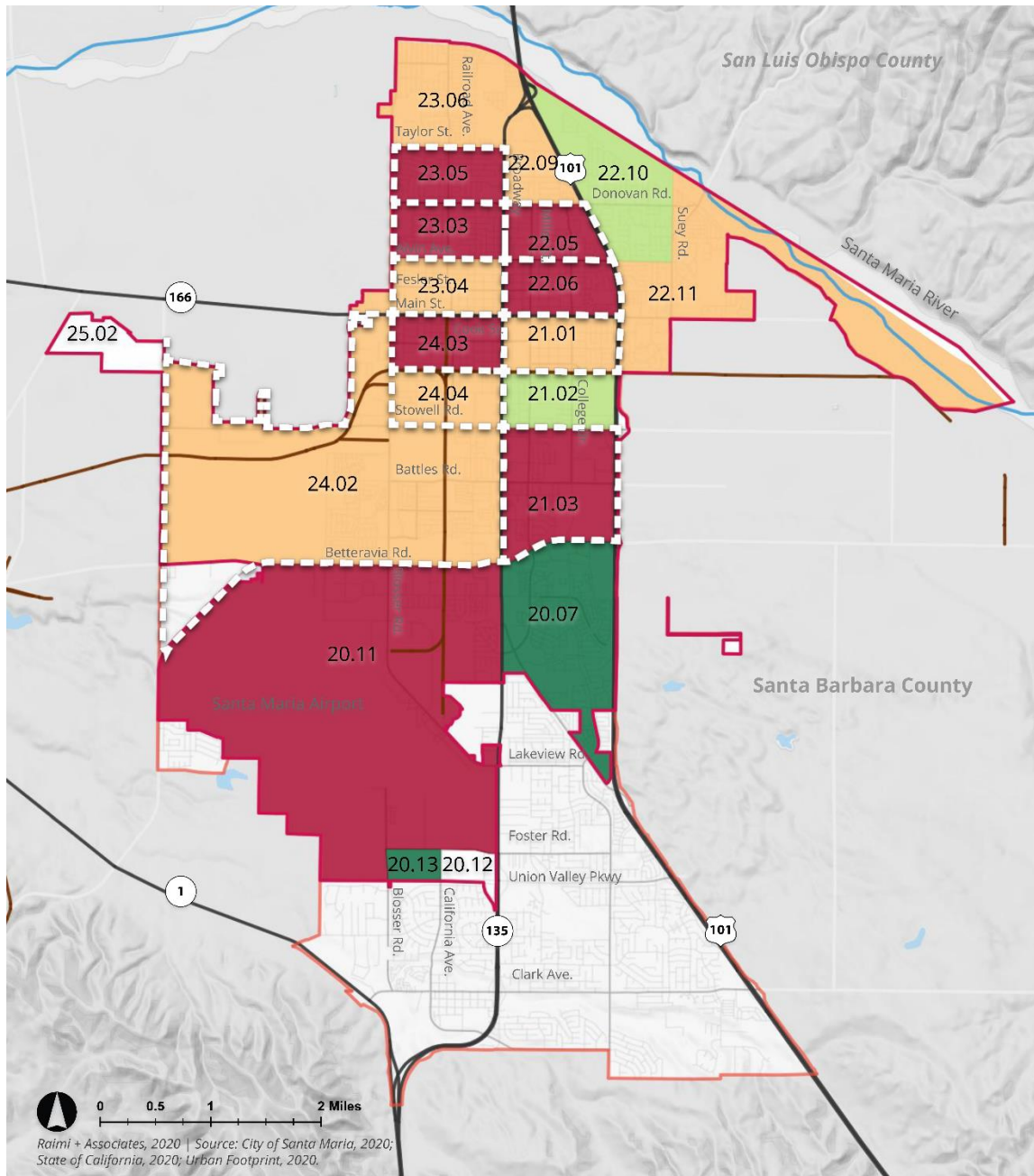- ▪ 50 - 75%
- ▪ 75 - 100% (Highest Scores)

Diabetes

Diabetes is the seventh leading cause of death in the United States.[86] Since the 1970's, the risk of developing diabetes has increased by over 50% for American adults. There are two types of diabetes: Type I is less prevalent and most often occurs during childhood or adolescence, Type II is the most common and preventable, affecting 90–95% of those with diabetes. In 2017, diabetes was an important cause of death (73 deaths) for both men and women in the county, as well as for all race/ethnic groups. However, the diabetes-specific death rates were higher for Hispanics, and higher for men than for women.[87]

In 2016, about 8.9% of Santa Maria adults 18 years of age or older had diagnosed diabetes, slightly higher than Santa Barbara County rate of 6.8%.[88] Based on responses to a local community health survey led by Dignity Health, 18% of participants within the Santa Maria service area reported diagnosed diabetes.[89] Obesity and lack of physical activity are major risk factors for Type II diabetes. As such, addressing the causes of diabetes through a variety of physical and social interventions to improve nutrition and fitness will be necessary to reverse this health trend.

There is a close relationship between both diabetes and obesity. As noted in Figure 26 and 27, three low-income census tracts are impacted by the lowest Healthy Places Index scores for both obesity and diabetes: 21.03, 24.03, 23.03, and 23.05.[90] Both are risk factors for the top two leading causes of death in the county – heart disease and cancer. The incidence of these diseases can shorten life expectancy, compromise quality of life, and result in significant financial burden. Early prevention and detection are critical to reversing these trends. The built environment can play a particularly important role in ensuring access to healthy nutrition, places for physical activity and recreation, and quality health services.

Figure 27. Diabetes, City of Santa Maria

San Luis Obispo County

23.06
Taylor St.

23.05   22.09 101 22.10
Donovan Rd.

23.03   22.05

23.04   22.06   22.11

166

25.02   23.04   21.01
Main St.

24.03   21.02
College

24.04
Stowell Rd.

24.02   Battles Rd.

21.03

Betteravia Rd.

20.11   20.07

Santa Maria Airport   Santa Barbara County

Lakeview Rd.

Foster Rd.

20.13 20.12   Union Valley Pkwy

1   Blosser Rd. California Ave. 135

Santa Maria River

Suey Rd.

101

Clark Ave.

0   0.5   1   2 Miles

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.

Santa Maria
General Plan
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Legend

☐ City Limits
☐ Sphere of Influence
▬ Water
▬ Railroads
▬ Freeways/Highways
▬ Major Streets
▬ Local Streets
▦ Low-Income and High
Pollution Burdened Census Tracts

Healthy Places Index (2018) - Diabetes Percentile Score

■ 0 - 25% (Lowest Scores)
■ 25 - 50%
■ 50 - 75%
■ 75 - 100% (Highest Scores)

Chronic Obstructive Pulmonary Disease

Chronic obstructive pulmonary disease (COPD) is the fourth leading cause of death in the United States. It is a broad term used to describe chronic inflammatory diseases, including emphysema, chronic bronchitis, and refractory asthma. This disease is progressive, characterized by increasing difficulty to breathe, and the potential for irreversible damage to the lungs. Smoking is the leading cause of COPD. Patients with COPD are at increased risk for the development of lung cancer and death from heart disease.[91]

As noted in Figure 28, COPD is prevalent in areas with the least healthy rates of both coronary heart disease and cancer, in addition to a few census tracts west of Broadway Avenue.[92] While health behaviors may explain the incidence of COPD, environmental factors (e.g., proximity to major highway corridors, exposure to elevated diesel particulate matter, and incidence of lung cancer and asthma), may also play a role in understanding this relationship.[93] [94]

Chronic lower respiratory diseases accounted for only five percent of all deaths in Santa Barbara County in 2010. However, 39% of these deaths were in North County (54) and most of these deaths (25) took place in Santa Maria's high poverty areas.[95] Based on data from the Healthy Places Index, seven low-income census tracts have the least healthy rates of COPD: 22.05, 22.06, 21.01, 23.04, 24.03, 24.04, 21.03.

Figure 28. Chronic Obstructive Pulmonary Disease, City of Santa Maria
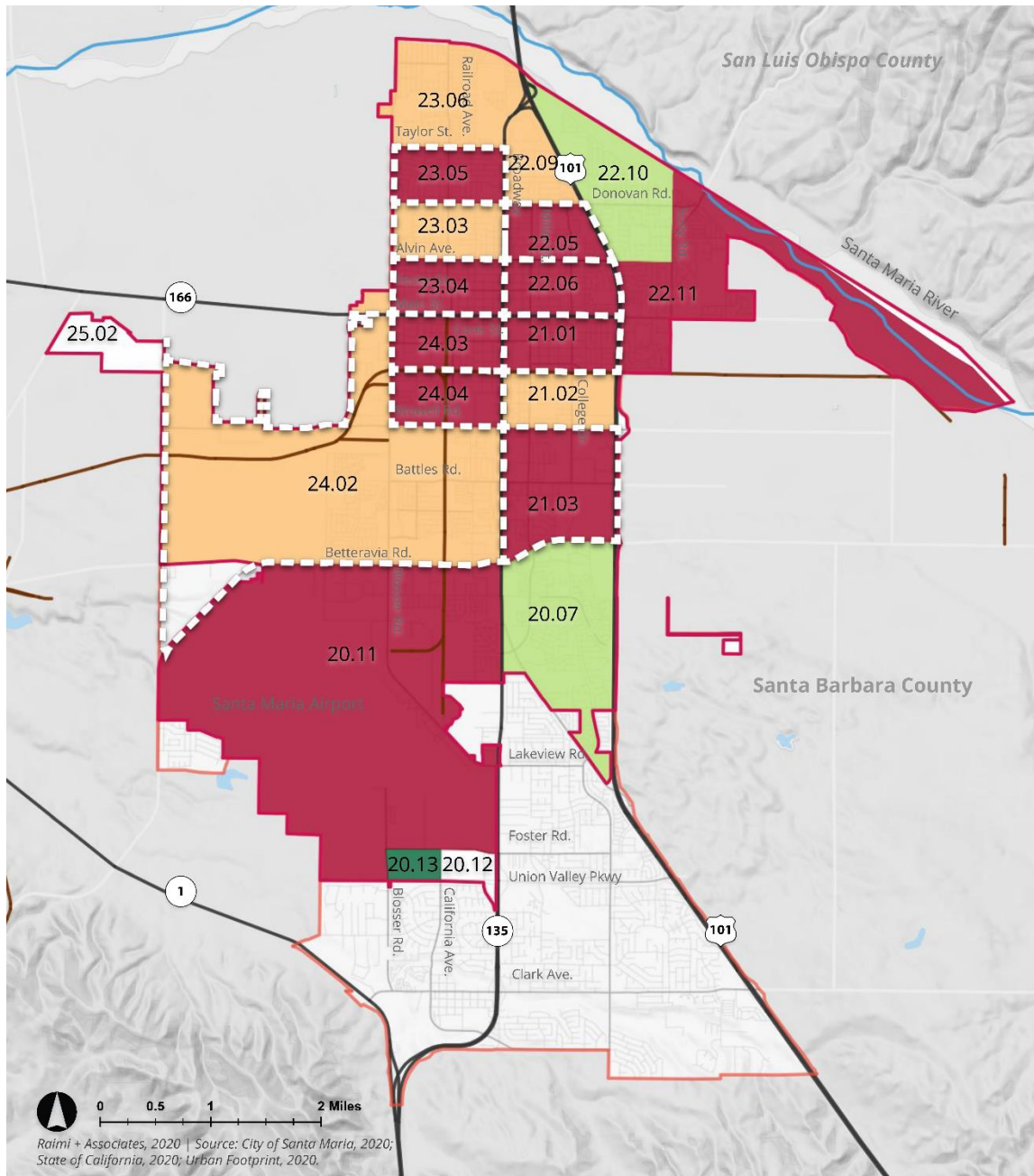
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

Santa Maria
General Plan
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Legend

☐ City Limits
☐ Sphere of Influence
☐ Water
━ Railroads
━ Freeways/Highways
━ Major Streets
━ Local Streets
⬚ Low-Income and High Pollution Burdened Census Tracts

Healthy Places Index (2018) - COPD Percentile Score

■ 0 - 25% (Lowest Scores)
■ 25 - 50%
■ 50 - 75%
■ 75 - 100% (Highest Scores)

Asthma

Asthma is a chronic lung disease that includes inflammation and intermittent narrowing of the airways. In the United States, more than 26 million people have asthma. Asthma can cause repeated episodes of wheezing, chest tightness, shortness of breath, and coughing. Asthma attacks are triggered by several factors, including smog, dust, pollen, and smoke. A person with asthma can generally live as long as someone without asthma, but three factors can lead to a shorter lifespan with asthma: smoking, the presence of environmental irritants, and lifestyle choices. Although asthma cannot be cured, it can be managed with appropriate treatment and medication.

In 2016, 12% of adults in Santa Maria had been told by a health care provider that they currently had asthma, compared to 13% in Santa Barbara County.[96] Rates of diagnosed asthma are lower among children 17 years or younger (11%) in Santa Maria, compared to the county (12%).[97] According to the Healthy Places Index, census tract 21.03 has some of least healthy rates of both asthma and COPD.

Health Outcomes + Well-being

A sense of community well-being is defined by physical health and general state of social, mental, and emotional health. The interaction of these elements shapes health-related quality of life, including life satisfaction and outlook.[98] The well-being of a population incorporates physical, emotional, and social health, reflecting individual perceptions of physical health and a community's sense of opportunity and happiness.

Life Expectancy

Data on life expectancy by race/ethnicity is not available at the city level, but other available data reveal significant disparities in the city. In Santa Barbara County, life expectancy for the following population groups is: Asians (87.1), Latinos (84.1), Whites (81.4), Blacks (78.5), and Native Americans (78.2).[99] The highest age adjusted death rate is in North County, which includes Santa Maria – 913 deaths per 100,000 – compared to the county rate of 590.1 deaths and the State rate of 618.4 deaths per 100,000.[100] The area of the city covered by zip code 93454 (generally including areas east of Broadway Avenue and north of Betteravia Road)[101] has the highest age adjusted death rate in county at 1,674 deaths per 100,000.

There is no single cause for the disparity in age adjusted death rates. Rather, it suggests that Santa Maria residents, particularly those living in zip code 93454, face a variety of physical, social, and economic conditions that negatively impact health status and life expectancy. Disparities in life expectancy underscore why improving community health is a critical long-term goal.

Mental Health

Mental health is becoming an increasingly critical health concern across the United States and has a profound impact on an individual's physical and social well-being, impacting quality of life, educational attainment, self-care, and level of activity.[102] Mental illness encompass various behavioral health problems, including schizophrenia, bipolar disorder, depression, and addiction to alcohol, illegal drugs (e.g., methamphetamine, heroin, hallucinogens, hazardous chemicals, etc.) or prescription drugs. Mental illness can affect persons of any age, race, ethnicity, or income, but it is generally treatable.

Based on data from the Santa Barbara County Community Health Needs Assessment, there has been a significant increase in the County of people told by a doctor they had a depressive disorder between 2016 and 2019, particularly for those 18-44 years old and those with a household income below $35,000.[103] As shown in Figure 29, adults living in low-income census tracts in Santa Maria (22.05,22.06, 23.05, 23.03, 23.04,24.03, 24.04, 24.02) felt their mental health was not good during two or more weeks of the year.[104]

Interestingly, there is a concentration of people that do not participate in physical activity or exercise (e.g., running, golf, gardening, walking) in many of the same areas where people identify that mental health is not good (Figure 29).The built environment, which is a focus of the General Plan, presents many opportunities to support healthy lifestyles and mental health, including access to parks and walkable environments that promote healthy behaviors, physical exercise, and emotional well-being.

Figure 29. Mental Health Status Not Good, City of Santa Maria
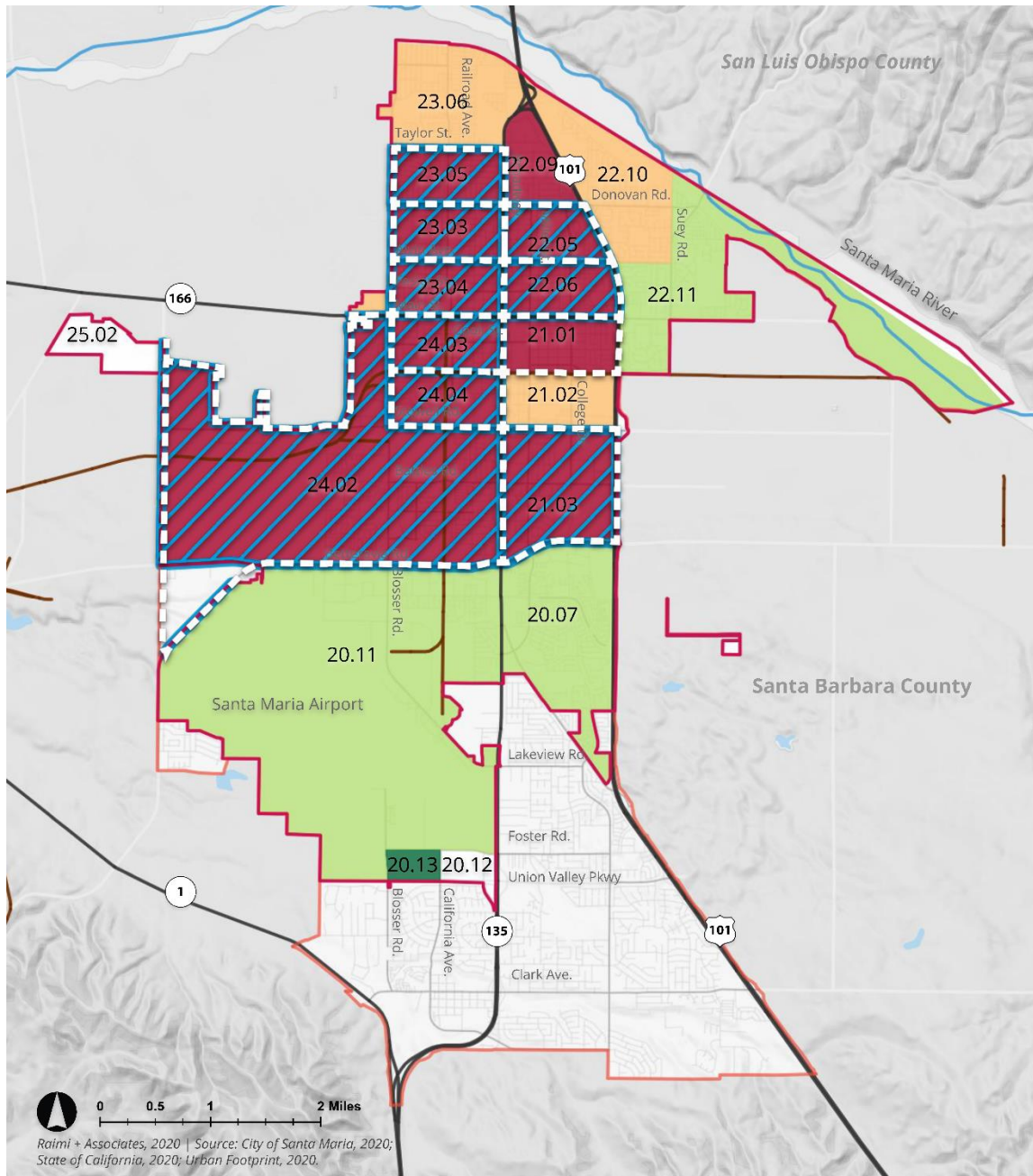
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

Legend

- ⬜ City Limits
- ⬜ Sphere of Influence
- 🟦 Water
- ▬ Railroads
- ▬ Freeways/Highways
- ▬ Major Streets
- — Local Streets
- ⬚ Low-Income and High Pollution Burdened Census Tracts

Healthy Places Index (2018) - Mental Health Not Good Percentile Score

- 🟥 0 - 25% (Lowest Scores)
- 🟧 25 - 50%
- 🟩 50 - 75%
- 🟩 75 - 100% (Highest Scores)
- ▨ < 25% for No Leisure Time Physical Activity

Appendix F: Physical Environment Assessment

The Physical Environment Assessment analyzes the relationship between health and the built environment. This section also examines pollution indicators in the environment to better understand negative health outcomes in disadvantaged communities. A detailed explanation of how disadvantaged communities were identified can be found in Appendix A.

Key Findings

Understanding characteristics of the built environment – the location of homes, transit, parks, health care facilities and the way that we interact with these various places in the public realm – is vital to strengthening quality of life. Additionally, the siting of polluting land uses can threaten the health and well-being of the community. Setting the appropriate design parameters for change and redevelopment is critical to realizing the community's vision for the future.

- Areas in proximity to Downtown are the most walkable in the city. Promoting a mix of commercial and residential uses, active use of transit, and sense of safety can enhance walkability.

- The rate of food insecurity among adults in Santa Maria (16%) is twice the rate in Santa Barbara County (8%), despite the existence of various emergency food programs and facilities.

- Most of the city is designated as a Health Professional Shortage Area for primary care to the Medicaid eligible population and mental health for the low-income migrant farmworker population, indicating a shortage of providers in these fields, despite the existence of several health facilities across the city.

- Exposure to pesticides is a critical issue in Santa Maria. Census tract 22.11 is among the communities with the most elevated concentration of active pesticides across the entire state.

- Drinking water is not an issue in the city. However, the presence of nitrate pollution in the city's water bodies poses a threat to groundwater and to people that may encounter the pollutant by touching, eating, or breathing in the substance.

- The siting of hazardous, clean up, and solid waste facilities near residential neighborhoods, particularly low-income communities, poses a serious threat in case of a hazard release emergency.

- A concentration of oil and gas wells exists in the City, particularly south of Stowell Road. While oil companies are leading various remediation efforts of old sites, the City will need to consider how to address the impacts of oil well abandonment and the threat of potential leaks.

Walkability and Mobility

Research shows that driving for long periods of time contributes to increased rates of obesity.[105] Vehicular traffic is also the greatest contributor to greenhouse gases and poor air quality, which can negatively impact health outcomes in the city. Walking, in contrast, has many positive health outcomes, including lower rates of obesity.

A person's preferred and actual mode of transportation depends on several factors, including travel distance, cost, accessibility, and more. The built environment, including the accessibility of parks, commercial uses, and transit on foot, can make walking more attractive as an option.

This section covers various topics related to walkability and mobility that impact overall health outcomes in Santa Maria. These indicators provide insight on the links between health and land use planning.

Intersection Density

Intersection density (measured as the number of intersections per square mile) is an indicator of the overall walkability of a community as shorter blocks are correlated to increased rates of walking. Thus, locations with a higher intersection density have smaller blocks and higher rates of walking, while areas with lower intersection densities correspond to increased VMT and less walking. For reference, the LEED certification for neighborhood development identifies 140 intersections per mile as the minimum to promote internal project connectivity.[106] Figure 30 shows three examples of street-level maps to better understand how intersection density shapes the built environment.

Figure 30. Intersection Density Examples

Street Maps at the Same Scale

Venice, Italy
1,500 intersections/square mile

Los Angeles, CA
150 intersections/square mile

Irvine, CA
15 intersections/square mile

Source: Allan B. Jacobs, *Great Streets*, MIT Press, Cambridge, MA, 1993, pp. 221, 225, 249. Reprinted in Reid Ewing, *Pedestrian and Transit-Friendly Design: A Primer for Smart Growth*, Smart Growth Network, August 1999, p. 4. <http://www.epa.gov/dced/pdf/ptfd_primer.pdf>

Santa Maria's historical development reflects the highest level of intersection density in Downtown, a type of block pattern that promotes walkability (Figure 31). For residents that live in Downtown, the perception of unsafe roads and the inability to access some goods and services in Downtown, may inhibit walking.[107]

Other areas of the city, with a concentration of large lot single-family homes, the airport, and industrial uses, tend to have the lowest intersection density scores. Figure 31 is useful to identify locations where new pedestrian connections or new blocks can be created to enhance walkability and improve access to key destinations in Santa Maria.

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Figure 31. Intersection Density, City of Santa Maria
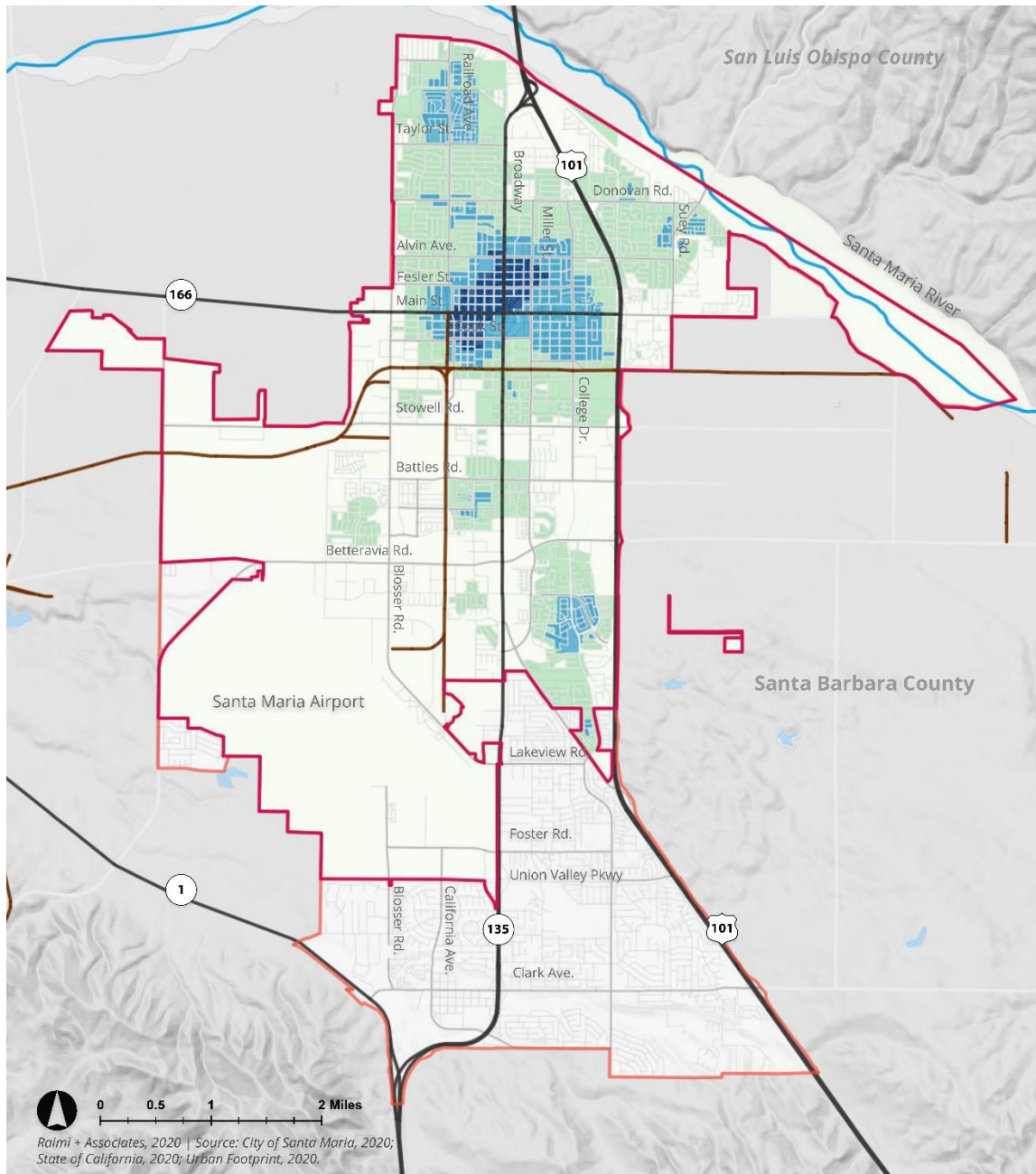
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

Legend

City Limits
Sphere of Influence
Water
Railroads
Freeways/Highways
Major Streets
Local Streets

Intersections per Square Mile

0 - 89
90 - 139
140 - 199
> 200

Walkability + Active Transit

Research has found that residents within walking distance to goods and services tend to walk more and drive less, so walking access to commercial uses is an important indicator of a health-promoting environment. As noted in the Land Use Existing Conditions Report, only about a quarter (23%) of people in the city are within a five-minute walk from commercial uses in the city. Additionally, transit service is generally located along major arterial and collector roadways. This pattern provides great access to residents and employees, particularly in areas close to Downtown. Figure 32 shows the walking distance to each transit stop in the city. Most residents in the city (57%) live within a 5-minute walk of a transit stop; another 33% live within 5-10 minutes of a transit stop.

This is an important indicator of health because many lower income families are reliant on transit to access goods and services, schools, jobs, and health care. For instance, in census tract 24.03 nearly 20% of all households do not have a car. This type of environment can place burdens on residents that do not have access to a vehicle and inhibit access to other community assets. While transit coverage is generally good for residents living along major arterials and collector roadways, Figure 32 does not address three critical aspects of transit ridership: the quality of the pedestrian environment between the destination and the transit stop; the headways (or frequency) of transit service; and whether transit options allow riders to easily reach their destinations. All these topics warrant further study as the planning process evolves.

It is also important to note that commute times are similar for residents living in the city – 21.3 minutes compared to 19.8 minutes in the county. Carpooling is on the rise and more prevalent in the city (24%) compared to the county (14%). However, only 4% of workers (16 years and older) commute to work by transit, walking, or cycling, compared to 11% in the county.[108] These trends signal an important opportunity for the City to promote the benefits of walking and bicycling to school or work, for daily errands, and for recreation, including increased physical activity and stress reduction, and better respiratory fitness.

Walk access to parks is another indicator of a healthy community. Figure 33 shows walk access (measured in minutes) to parks in the city. Nearly half (46%) of people in the city are within a 10-minute walk to their nearest park. In northern areas of the city, the 101 freeway creates a significant barrier for pedestrians wanting to access Jim May Park. In the south part of the city, particularly west of Broadway Avenue, park access is limited due to both distance and number of facilities. It is important to note that the quality and safety of the pedestrian environment also impacts the likelihood of a person's willingness to walk to a park. For young children and through adolescence, spending time in local parks can improve feelings of connection to the community, perceptions of safety, and social cohesion.

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Figure 32. Walk Access to Transit, City of Santa Maria
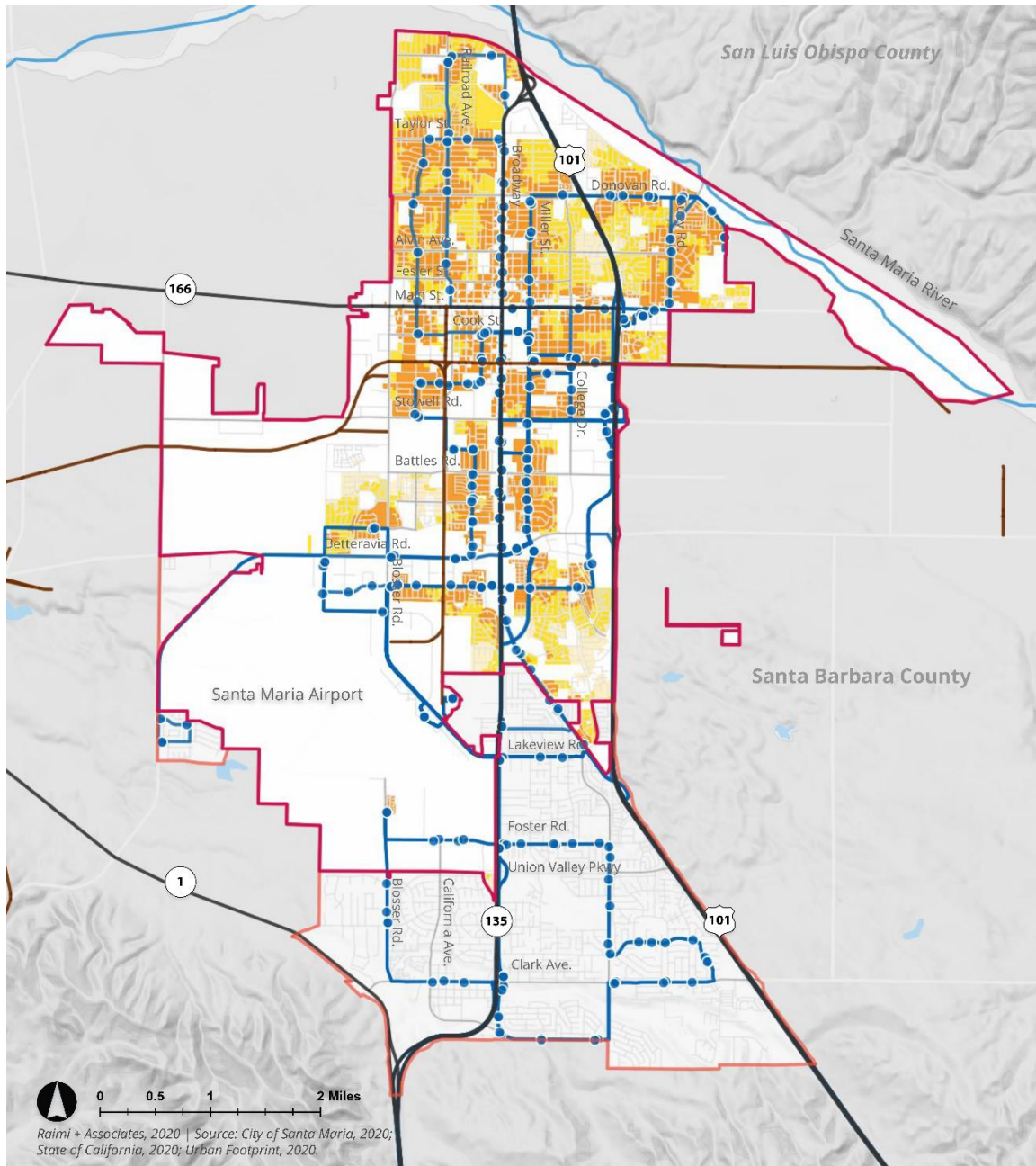
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.

Santa Maria
General Plan
imagine

Legend

- City Limits
- Sphere of Influence
- Bus Routes
- Water
- Railroads
- Freeways/Highways
- Major Streets
- Local Streets

Walking Access to Transit

- Residential Area within 5min
- Residential Area within 10min
- Residential Area within 15min

Figure 33. Walk Access to Parks, City of Santa Maria

San Luis Obispo County

Santa Maria River

Taylor St.

Railroad Ave.

Broadway

Miller St.

Donovan Rd.

Suey Rd.

Alvin Ave.

Fesler St.

Main St.

Cook St.

College Dr.

Stowell Rd.

Battles Rd.

Betteravia Rd.

Blosser Rd.

Santa Maria Airport

Santa Barbara County

Lakeview Rd.

Foster Rd.

Union Valley Pkwy

Blosser Rd.

California Ave.

Clark Ave.

0   0.5   1   2 Miles

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.
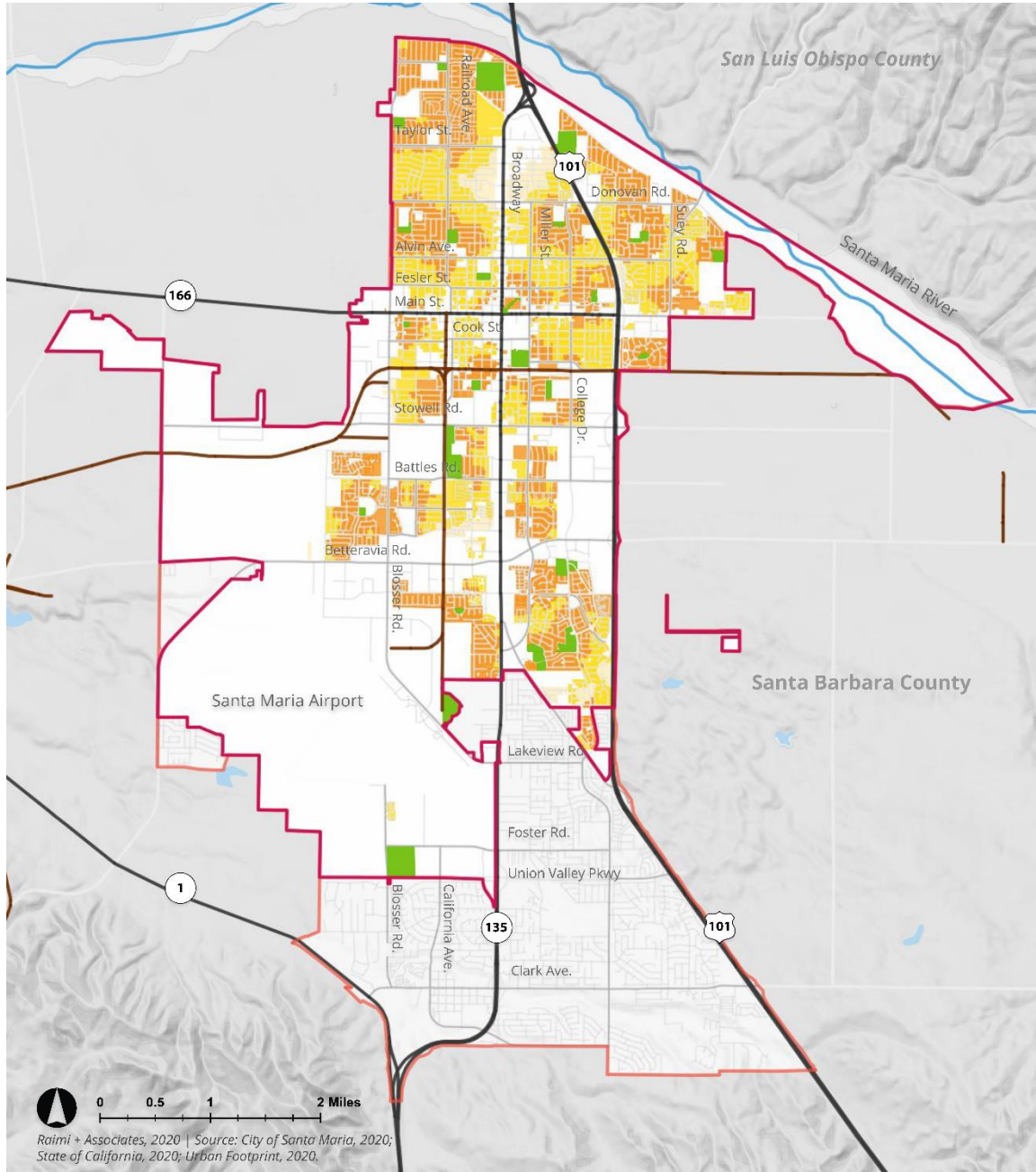
Santa Maria
General Plan

imagine

Legend

- City Limits
- Sphere of Influence
- Parks
- Water
- Railroads
- Freeways/Highways
- Major Streets
- Local Streets

Walking Access to Parks

- Residential Area within 5min
- Residential Area within 10min
- Residential Area within 15min
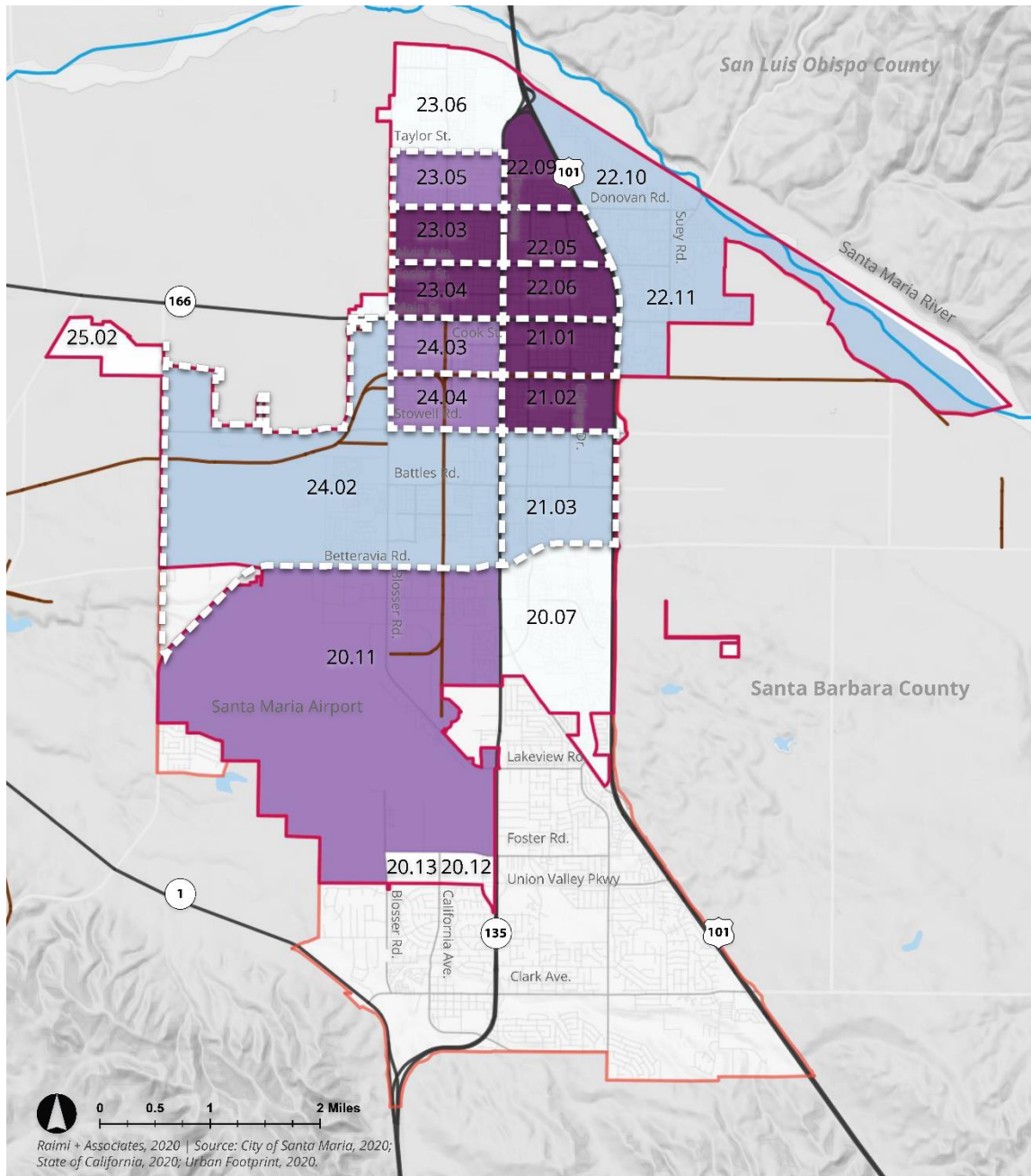
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Housing Stock

The recommended HCD approach to approximating substandard housing conditions in need of rehabilitation or replacement is to use census data, such as construction year, and supplement with local estimates. According to the California Department of Housing and Community Development (HCD), housing stock characteristics analyses "must include an estimate of the number substandard units in need of rehabilitation and/or replacement…" to "assist local governments in developing appropriate housing policies and prioritizing housing resources."[109]

Substandard Conditions

Older housing stock, such as that built before 1978, is associated with increased likelihood of the presence of lead and other health-harming that can lead to a range of acute and chronic conditions, including asthma, lead poisoning, respiratory infections, and others.[110] Further, the old age of housing may make repairs, maintenance, and accessibility modifications inaccessible, leading to further disrepair and worsening of housing conditions.[111] Almost two thirds (65%) of all housing in Santa Maria was built in 1979 or before and this housing stock is concentrated in areas with multiple social and economic vulnerabilities (Figure 34), with the highest concentration in census tracts 23.04 and 22.06.[112]

Figure 34. Age of Housing Stock (Built Before 1980), City of Santa Maria

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

Santa Maria General Plan
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Legend

	City Limits
	Sphere of Influence
	Water
	Railroads
	Freeways/Highways
	Major Streets
	Local Streets
	Low-Income and High Pollution Burdened Census Tracts

Structures Built before 1980

	0 - 25%
	25% - 50%
	50% - 75%
	75% - 100%

Crowding is also considered by HCD as part of the required analyses for estimating substandard housing conditions. Crowding can decrease mental health quality, increase the spread of diseases, and have a myriad of other health and well-being effects on householders of all ages, but particularly those with social vulnerabilities.[113] It can be defined in many ways, such as household size and number of occupants per room.[114] Santa Maria has a higher average household size compared to the county (Figure 35). The city has twice as many households with 1.01 to 1.5 occupants per room (14%) and almost three times as many households with 1.51 occupants or more (10%) compared to Santa Barbara County (Figure 36).

Figure 35. Average Household Size by Tenure, City of Santa Maria and Santa Barbara County
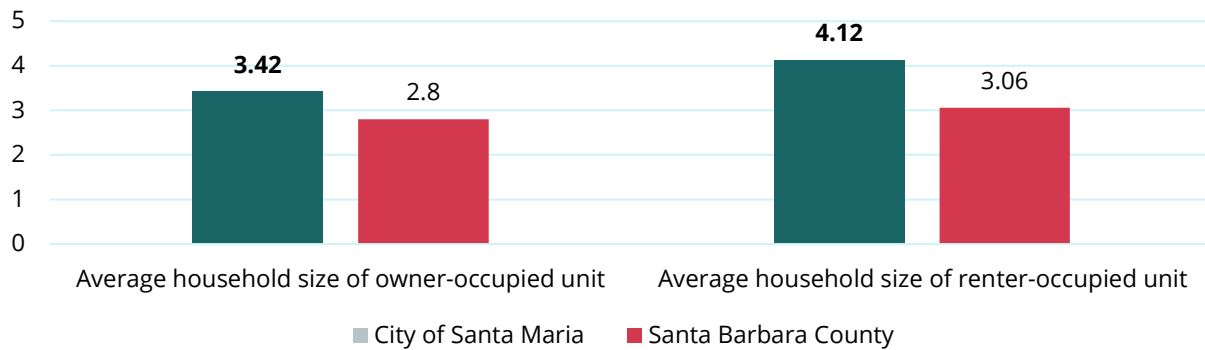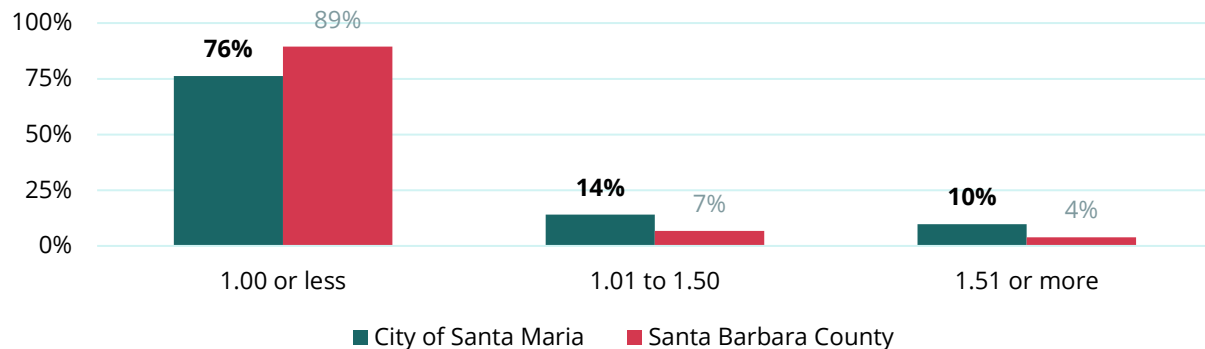

Figure 36. Number of Occupants per Room, City of Santa Maria and Santa Barbara County

Source: ACS 2014-2018 5-Year Estimates, Table DP04 for City of Santa Maria and Santa Barbara County.

Code Violations

The enforcement of local building codes and effective inspection of properties is an important step in supporting safe, hazard-free housing. Based on inspections from City Fire, Building, and Code Enforcement in Santa Maria in 2017, "more than 4,000 code violations, substandard and nuisance conditions ranging from unpermitted construction, structural hazards, water intrusion, plumbing leaks, electrical hazards, inoperable windows, cockroach and bedbug infestations, accumulated trash, and dilapidated laundry rooms and common areas..." in just nine residential properties, comprising over 500

housing units, owned by one landlord.[115] While this egregious case led to a lawsuit, resolved in 2019, trends in violations point to opportunities that can strengthen existing efforts and ensure all residents live in housing that promotes health and well-being (Table 5).

H-2A Housing

As the number of H-2A Visa workers in the city has increased, requirements for employers to provide lodging to visiting workers have placed increased housing demand on low-income areas of the city.[116] The distribution of H-2A housing within the City of Santa Maria closely mirrors the location of low-income tracts, with more dense clustering along North Broadway, near areas with a high concentration of low-income and low owner-occupancy households (census tracts 23.04, 24.03, and 24.04).[117]

Table 5. Code Violations 2015-2020, City of Santa Maria

Code	Description	2015	2016	2017	2018	2019	2020*
1	Abandoned/Inoperative/Unregistered Vehicles	272	288	220	130	165	120
2	Backflow - Repair	0	0	0	0	0	0
3	Backflow - Test	0	0	0	14	21	0
4	Boarding House/Overcrowding	62	74	40	49	39	15
5	Building/Remodeling Without Permits	95	147	156	164	243	107
6	Business in Residential District	21	23	29	5	7	13
7	Camping/Storage on Right of Way	69	99	108	41	66	75
8	Conversion/Covered Parking	102	109	91	72	45	33
9	Conversion/Dwelling Units	12	8	12	10	9	4
10	COVID-19	0	0	0	0	0	234
11	Employee Housing	0	0	0	0	7	75
12	Explosives & Fireworks	0	0	0	0	0	35
13	Fire Code	0	0	1	27	190	33
14	H&S Code/Substandard Conditions	97	75	110	86	88	101
15	Home Occupations	44	27	31	26	28	23
16	Keeping of Roosters	36	37	28	28	49	31
17	Living in Recreational Vehicles	9	10	15	15	26	19
18	Miscellaneous	382	473	320	202	148	95
19	No Business License	80	323	135	100	104	71
20	Noise Regulations	112	112	102	115	116	77
21	Outside Storage/Display of Merchandise	6	16	19	6	24	12
22	Parking on Front Yard Setback	531	501	393	100	104	101
23	Parking on Public Right-of-Way	0	0	0	0	1	49
24	Property Nuisances	147	216	156	159	347	147
25	Sales Without Permits (Garage, Yard, Moving)	24	49	21	10	5	11
26	Shopping Carts	0	0	8	1	2	5
27	Signs, Banners, Pennants	117	141	92	117	166	54
28	SWMP - Waste Water	52	27	43	62	57	49
29	Trash, Rubbish, Junk, or Weeds	838	861	807	344	478	386
30	Use Permits - C.U.P, Temp. & PD	31	38	24	50	53	23
31	Vector Issue	10	4	5	0	0	0
32	Vehicles Parked on Street	28	48	25	23	48	57
33	Weed Abatement Program	0	0	0	0	8	227
	Total	**3177**	**3706**	**2991**	**1956**	**2644**	**2282**

Note: All data is provided for the entire calendar year, except for 2020, which is provided through September 24, 2020.

Source: City of Santa Maria, Code Compliance Activity Reports from January 01, 2015 through September 24, 2020.

Access to Health Care

Access to health care is a challenge for some residents in Santa Maria, including 16% of adults (18-64) in Santa Maria that are uninsured, compared to 12% in the county.[118] In Santa Maria, 18% of all adults (18+) experienced a delay in obtaining prescriptions/medical services, compared to 20% of adults in the county. Among children (0-17), 10% experience delays in prescriptions/medical services, compared to 8.7% of children in Santa Maria.[119] Based on data from the Santa Barbara County Department of Public Health, the highest percentage of uninsured people is in high poverty areas in the city.[120]

Most of the city is designated as a Health Professional Shortage Area (HPSA) for primary medical care to the Medicaid eligible population and mental health care for the low-income migrant farmworker population, indicating a shortage of providers in these fields. For primary medical care, federal regulations define a shortage area when the population to provider ratio is at least 3,500 to 1 (3,000 to 1 if there are unusually high needs in the community). To achieve the population to practitioner target ratio, the Santa Maria HPSA would need to add 5.79 primary care and 2.91 mental health full-time equivalent practitioners. Provider ratios are not available for Santa Maria, but for comparison, in Santa Barbara County, the population to provider ratio (1310:1) is slightly higher than the state (1260:1).[121]

While most of the city is designated as a Health Professional Shortage Area for primary care to the Medicaid eligible population and mental health for the low-income migrant farmworker population,[122] there are various facilities that provide health services in Santa Maria. The Marian Regional Medical Center is a not-for-profit hospital that provides a range of medical services to residents within the Santa Maria Valley, including Santa Maria, Guadalupe, Nipomo, and Orcutt. The County also offers important medical and mental health services in the city. The Santa Barbara County Public Health Agency operates the Santa Maria Health Care Center, which provides a variety of services, including medical care, women's health services, preventative care, immunizations, clinical laboratory, and other services. Additionally, there are various free and low-cost clinics that provide specialized services, including women's services, immunizations, and addiction care: Santa Maria Women's Health Center, Salvation Army of Santa Maria, Good Samaritan Recovery Point, and various Community Health Centers' clinics.

Preventive Care – Older Adults

Many chronic diseases and health conditions related to aging and the senior population, can be managed, or avoided, through preventive care. This behavior is linked to location and diversity of healthcare facilities in a community and the time and cost of travel to access these facilities and services. Further, if older adults maintain preventive care screenings and immunization, they are less likely to need emergency room care, freeing up services for other health needs.

Preventive care for older adults identifies the percentage of adults over age 65 who keep up with a core set of clinical preventive services. In Santa Maria, there are four census tracts (24.04, 24.03, 23.04, 23.05) where less than 20% of both older adult men and women (65+ years) are up to date on these services (e.g., flu shots, pneumococcal shots, colorectal screenings, and, for women, a mammogram). Older adults are often overlooked as a vulnerable population. The greatest concentration of older adults (65+) that live alone (26%) resides in census tract 22.11, on the northeastern boundary of the city. It is critical to ensure that these older adults have access to affordable and accessible preventative care.

Public Safety

A variety of factors can impact community safety, including underemployment, the presence of gangs, racism, and lack of youth and family activities. Urban design has also been linked to crime and safety issues for vulnerable populations, including people with disabilities, older adults, children, pedestrians, and cyclists. Violent crime, such as homicides, directly affect the health outcomes of communities. Direct exposure to physical violence is also associated with a range of negative mental health consequences, such as depression, anxiety, suicide, and post-traumatic stress disorder

The perception of crime can also impact individual health, businesses, and social cohesion. Real and perceived crime can have health, social, and behavioral implications. It is also common for city-level crime rates to fluctuate – these may be impacted by the local economy, policing, and social discord.

Community safety has improved in recent years for Santa Maria residents. The number of property and violent crimes in the city has generally decreased over the last ten years, as shown in Figure 37.[123] Overall, crime rates across the city are low (4.8 per 1,000 people), similar to the county rate (3.95 per 1,000 people).[124]

Figure 37. Criminal Offenses (2009-2019), City of Santa Maria

Property Crime
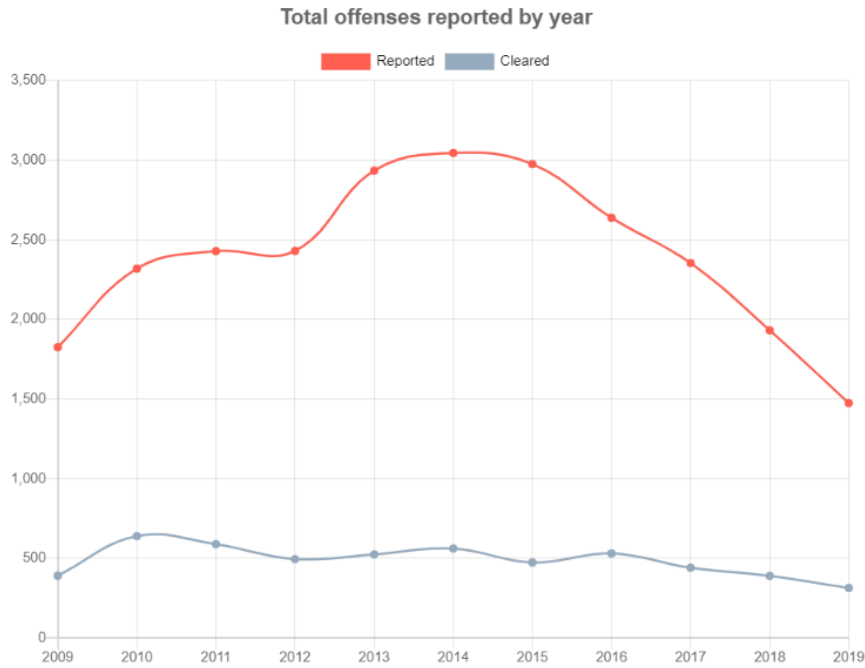
Violent Crime
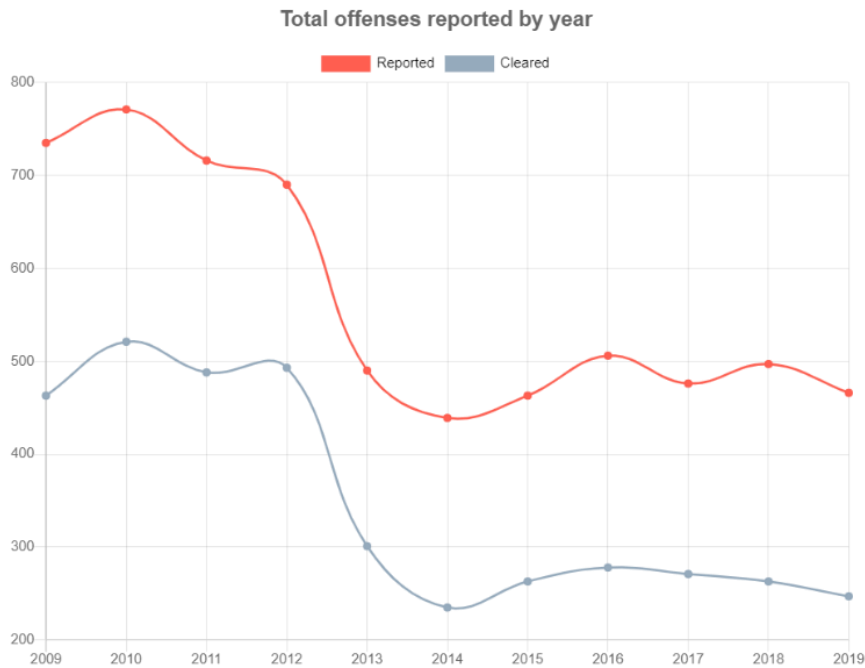
Source: FBI Crime Data Explorer (2009-2019)

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Food Access

Healthy communities provide access to affordable and healthy food at grocery stores, produce markets, community gardens, and farmers' markets. "Food access" is defined as physical access to a food store (e.g., supermarket, large grocery store, etc.).

While there are various food stores in Santa Maria, food access disparities exist in the city. As shown in Figure 38, food access is most limited on the city's northeast and northwest boundaries, in addition to a large area southwest of Downtown. Based on data from the USDA Food Research Atlas, the map shows census tracts where at least 500 people or 33% of the population lives more than 1 mile from a supermarket, supercenter, or large grocery store.

Residents of communities with access to a full-service grocery store generally tend to eat more fruits and vegetables, have lower body weights, and lower rates of chronic diseases. Local food production can also reduce the distance food is shipped, lowering the environmental footprint of food production and distribution.

Food Security

"Food security" is defined as having access to enough food for an active, healthy life for all people at all times. Food insecurity can lead to undernourishment and malnutrition, which coincide with fatigue, stunted child development, and other health issues. In Santa Barbara County, roughly eight percent of adult's experience food insecurity at some point during the year, a rate which doubles for adults in Santa Maria (16%). In Santa Maria, 14% of households receive food stamps/SNAP benefits. Most of these households (81%) do not include anyone over the age of 60.

Several programs are available in Santa Maria to improve food security. Households that lack "food security" are eligible for supplemental assistance from government programs, such as the Federal Supplemental Nutrition Assistance Program (SNAP) and Women Infants and Children (WIC) program; the State CalFresh program, based on food stamps assistance; and local emergency programs, including the Foodbank of Santa Barbara County, Santa Maria-Bonita School District Healthy School Pantry, Santa Maria Foursquare Church, Central Coast Rescue Mission.[125] There is also a Meals on Wheels program that serves the elderly, low-income, and homebound persons across the Santa Maria Valley. For youth (18 and under), the Foodbank of Santa Barbara County and various school districts across the region have partnered with United Way and No Kid Hungry to offer free "grab-and-go" meals.

Figure 38. Low Food Access, City of Santa Maria
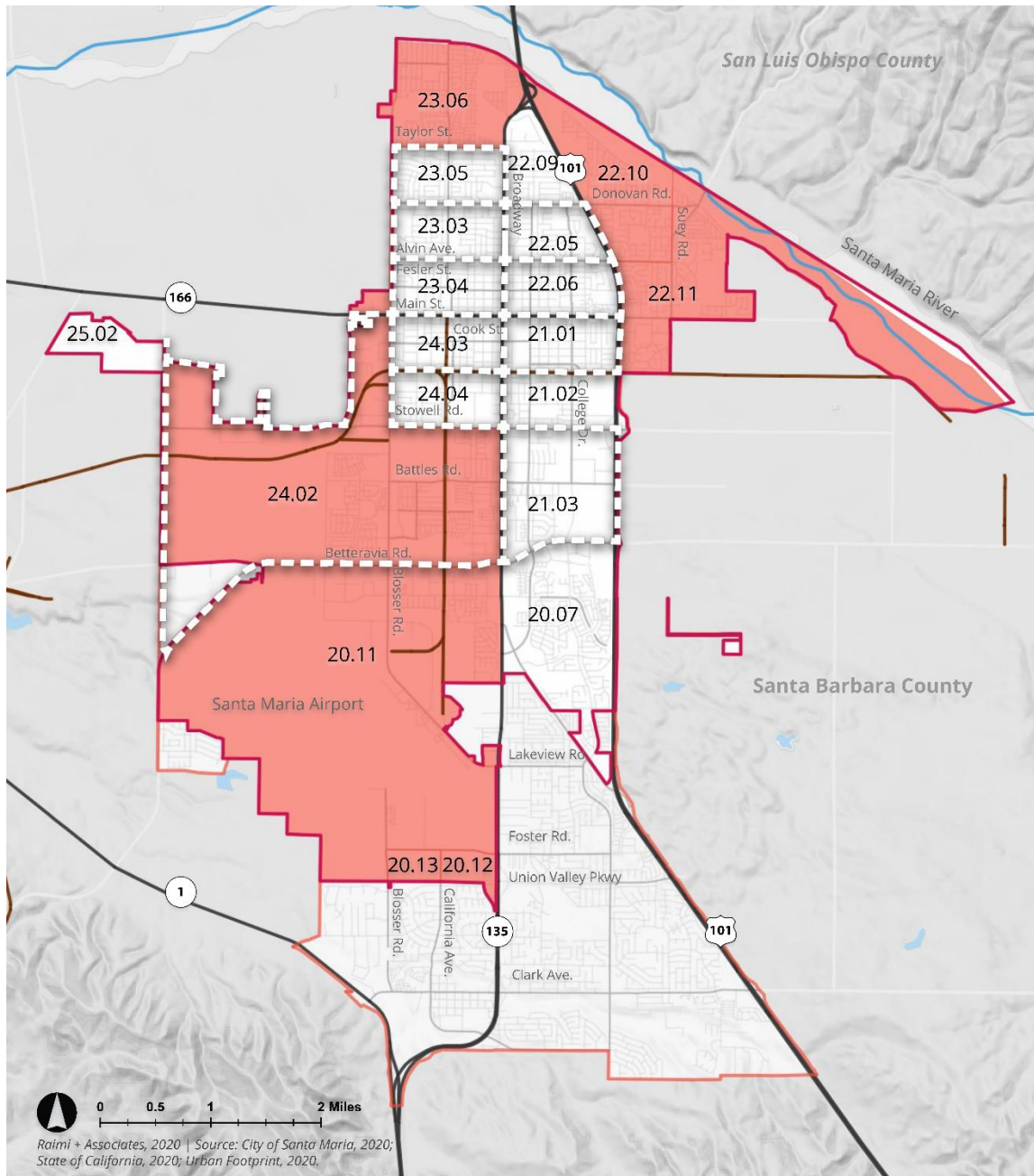
Figure 38. Low Food Access, City of Santa Maria

Legend

- ☐ City Limits
- ☐ Sphere of Influence
- ☐ Water
- ▬ Railroads
- ▬ Freeways/Highways
- ▬ Major Streets
- ▬ Local Streets
- ⬚ Low-Income and High Pollution Burdened Census Tracts

Low Access Tracts at 1 Mile away from Grocery Stores

- ☐ Low Access Tracts
- ☐ Not applicable

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Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.

Pollution Exposures and Environmental Effects Assessment

Research has shown that many communities of color throughout the State bear a disproportionate burden of exposure to pollution and other toxins in their communities.[126] While in some communities this is in part due to the legacy of exclusionary zoning that led to residential segregation, in others it is a function of land use decisions to co-locate sensitive uses like residences and schools near industrial facilities, railroads, or major roadways. These type of planning decisions can result in negative health impacts. Long term exposure to pollutants can result in compounded health effects, including cancer, heart disease, and respiratory illness, and in some cases, death. In the case of many pollutants, the population groups most impacted are people of color, pregnant women, children, and older adults.

Addressing environmental justice requires the participation of community partners, business, and government to protect the health of all communities. Interventions in the physical environment, including better land use and transportation planning, can help reduce environmental injustices. Additionally, strategic efforts to identify communities disproportionately impacted by environmental justices can help address existing burdens, remove structural barriers, and ultimately, improve quality of life for all residents. [127]

Pollution Burdens

Air Quality

Air quality refers to a measure of the absence or presence of pollutants in the air. It considers gases and fine particles that are not visible to the naked eye but are present in the atmosphere—such as ozone, fine particulate matter (PM 2.5), nitrogen dioxide, carbon monoxide, sulfur dioxide, and lead—as a result of our daily living, economic, and transportation activities. Of all air quality pollutants, ozone and PM 2.5 have been shown to pose the greatest risk to health due to their adverse effects at even low exposures and long-term impacts across the population, regardless of their age, gender, or pre-existing conditions. [128] In Santa Barbara County, air quality has dramatically improved since the 1990s. In 2018, the county experienced zero exceedance days over the 8-hour ozone standard.[129] In Santa Maria, all residents benefit from the natural environment's absorption or dispersion of air quality pollutants—all census tracts in the city experience lower ozone and PM 2.5 exposure than most others in California. However, given the impacts of extreme climate events, including the spread of wildfire smoke across Santa Barbara and San Luis Obispo counties in 2020, air quality conditions may change over the long-term.

Compliance with statewide control measures, coupled with regional efforts, have helped reduce diesel particulate matter emissions over the last 30 years. The Santa Barbara County Air Pollution Control District (District) actively promotes voluntary incentive strategies focused on retiring older vehicles and equipment with newer, cleaner alternatives. For instance, the District recently leveraged funds and vouchers to replace an old diesel-fueled school bus at the Santa Maria Joint Union High School District with a new zero-emission electric school bus.[130]

Water Quality

Drinking Water

Drinking water in the city has two primary sources: 1) water wells located in the Santa Maria Airport area, and 2) State Water treated at the Polonio Pass Water Treatment Plant by the Central Coast Water Authority. In 2019, the city received about 76% of its water from the State Water Project. While drinking water (including bottled water) can be expected to include trace contaminants, the best way to ensure clean drinking water is identifying the contaminants that most seriously threaten human health, developing technology to remediate hazardous materials, and keeping pollution out of source water in the first place. In Santa Maria, drinking water is not severely impacted by contamination and is comparatively better than in neighboring Nipomo.
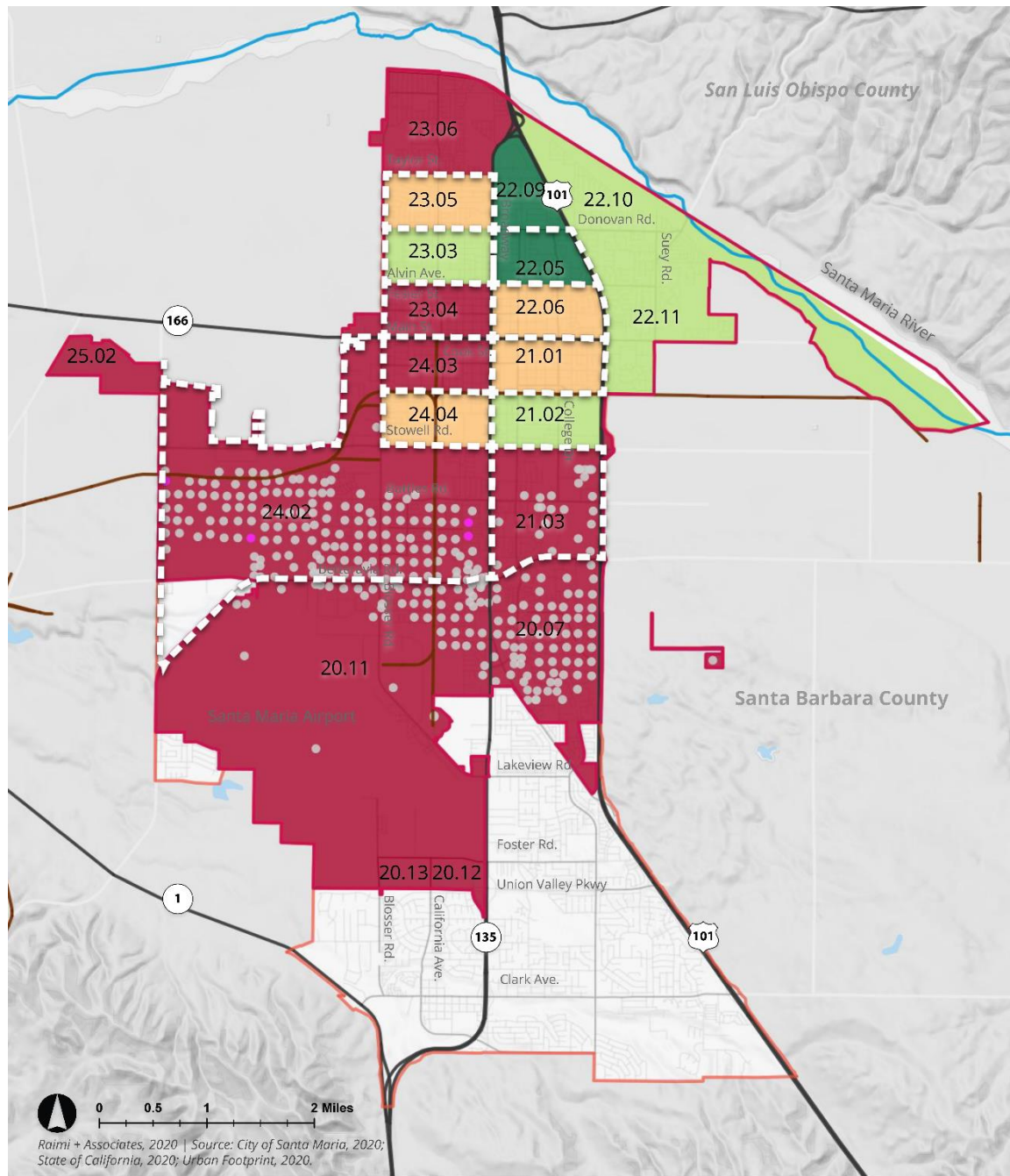
Groundwater Threats

Groundwater refers to any water stored underground. While the quality of water on the Earth's surface may vary due to runoff, pollution, and erosions, the quality of groundwater is generally more stable. However, groundwater can be contaminated by naturally occurring chemicals, human disposal of waste, and land use. For instance, containers and tanks that contain hazardous chemicals can leak and contaminate the soil and pollute groundwater.

Common pollutants of groundwater include biological contaminants (e.g., manure, septic systems), industrial pollutants (e.g., pesticides, gasoline and diesel fuel, and solvents).[131] In Santa Maria, groundwater threats impact four disadvantaged communities across the city (Figure 39). Groundwater threats include cleanup sites (e.g., leaking underground storage tanks, military), oil and gas sites, irrigated lands regulatory program sites, land disposal sites, and permitted underground storage tanks.[132] Nitrate pollution, which is found in water bodies in Santa Maria, is one example of a groundwater threat that can pose serious health risks, including cancer, birth defects, and thyroid disease, even when nitrate levels are below regulatory limits.[133]

Data from the California Department of Conversation also shows a concentration of oil and gas wells in the City, particularly south of Stowell Road, as shown in Figure 39. Most wells are plugged, but three sites with idle oil and gas wells exist west of South Broadway and north of East Betteravia Road. Abandoned wells, sumps, and other facilities cover large areas of the Santa Maria Groundwater Basin, which provides water to nearby farms, wineries and communities.

In southeast Santa Maria, oil companies are leading various remediation efforts of old sites to ensure compliance with current environmental regulations.[134] The process consists of oil companies either buying or demolishing existing homes to remove the contaminated dirt, as evidenced by suburban homes next to empty lots and piles of dirt in this area of the city. While the City of Santa Maria does not currently permit oil and gas wells, the Santa Barbara County does, including in nearby Cat Canyon, where there are drilling proposals for more oil wells.[135]

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Figure 39. Groundwater Threats Percentile Score by Census Tract, City of Santa Maria

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

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Legend

- ▭ City Limits
- ▭ Sphere of Influence
- ▭ Water
- — Railroads
- — Freeways/Highways
- — Major Streets
- — Local Streets
- ⌗ Low-Income and High Pollution Burdened Census Tracts

CalEnviroScreen 3.0 (2018) - Groundwater Threats Percentile

- ■ 75 - 100% (Highest Scores)
- ■ 50 - 75%
- ■ 25 - 50%
- ■ 0 - 25% (Lowest Scores)
- ● Plugged Wells
- ● Idle Wells

Impaired Water Bodies

Water bodies contaminated by pollutants, whether river, lake, or stream, are considered impaired. Contaminated water bodies can have negative impacts on humans, animals, and the environment. This indicator is calculated by considering the number of pollutants in all impaired water bodies.

According to a 2016 Integrated Water Report for Santa Maria, there are four impaired water bodies in the city: Blosser Channel, Bradley Channel, Main Street Canal, and Santa Maria River. Except for the Santa Maria River, these waterways are not natural watercourses and are intended as flood control stormwater facilities. However, known pollutants in these waterways include ammonia, fecal coliform, and nitrate. The Santa Maria River is a natural watercourse – known pollutants include sodium, dieldrin, endrin, and toxaphene, E. coli, and chloride, in addition to those listed in the channels and canal.

All four impaired water bodies are near disadvantaged communities (Figure 40). While the Santa Maria River is generally dry throughout the year, it can pose serious health threats to people that swim, fish, or breathe in the air close to these waterways. Additionally, the combination of nitrogen and phosphorus pollution can pose serious environmental risks and threaten entire ecosystem, as evidenced by nutrient pollution in water and airborne nitrogen.[136]

Figure 40. Impaired Water Bodies Percentile Score by Census Tract, City of Santa Maria
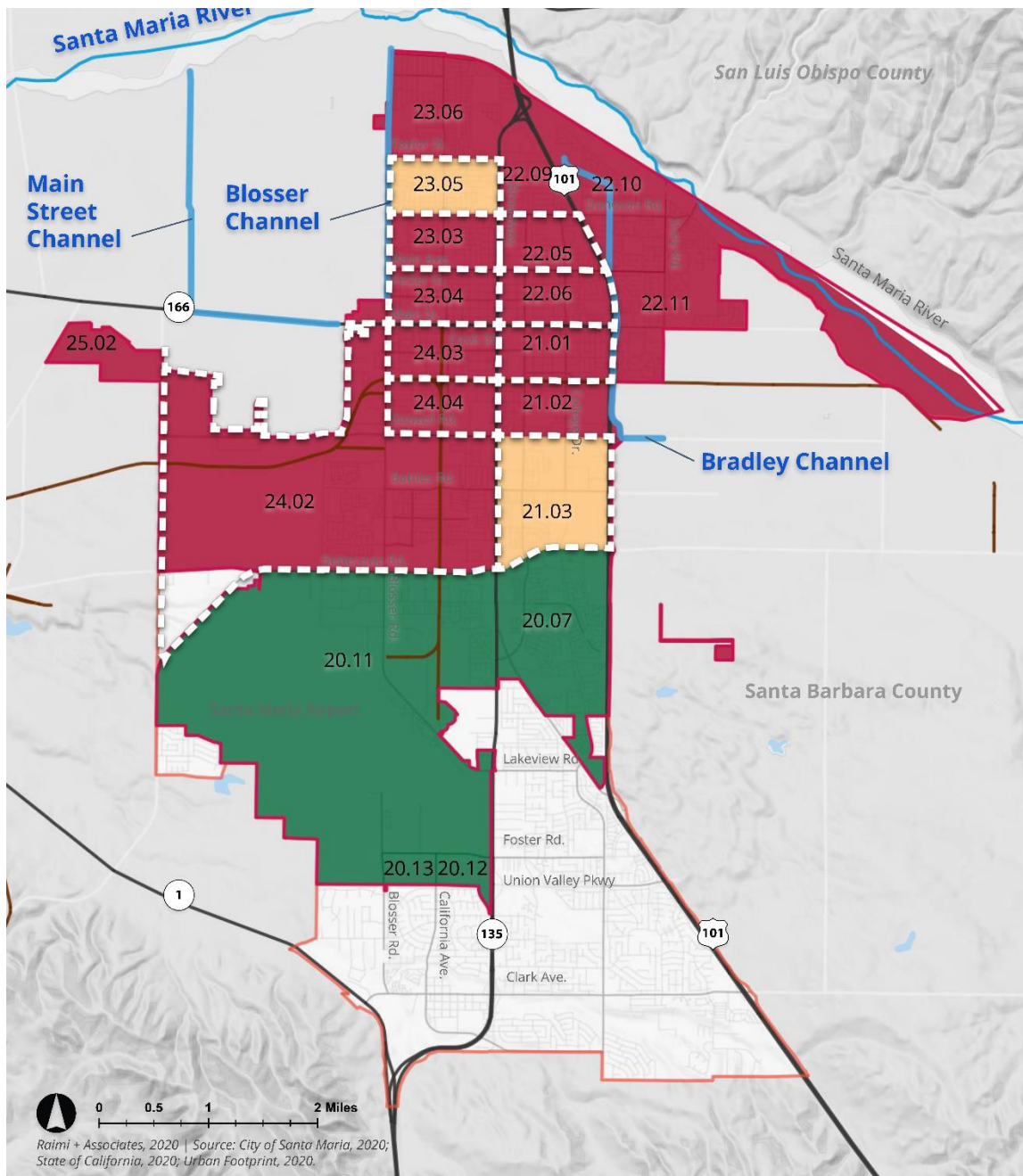
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

Legend

- City Limits
- Sphere of Influence
- Water
- Water Channels / Rivers
- Railroads
- Freeways/Highways
- Major Streets
- Low-Income and High Pollution Burdened Census Tracts

CalEnviroScreen 3.0 (2018) - Impaired Water Bodies Percentile

- 75 - 100% (Highest Scores)
- 50 - 75%
- 25 - 50%
- 0 - 25% (Lowest Scores)

Pesticide Use

Pesticide use measures the use and presence of hazardous and volatile ingredients used in agricultural production. A single or short-term high-level exposure can result in poisoning or illness. Similarly, chronic, or long-term exposure, can result in serious illness, including some types of cancers, pregnancy issues, abnormal births, and poor brain development. Children and pregnant women are at greater risk from the health effects of pesticide exposure. Exposure can also be a problem in disadvantaged communities where the risk to in-home pesticide use is high and where community residents may have little or no participation in pest control decisions. Occupational exposure can put agricultural workers at particular risk for pesticide-related illnesses.

Communities in or near agricultural fields, including farmworker communities, like Santa Maria, are at higher risk of exposure than suburban or urban communities. As shown in Figure 41, based on CalEnviroScreen 3.0 data, the unhealthy impacts of pesticide pollution affect broad areas of the city. While the type of active pesticides varies depending on different geographies within the city, all census tracts shaded in red represent the highest levels of pesticide exposure, compared to other communities across the state. Census tract 22.11, which runs alongside the Santa Maria River in the city's northwest boundary, has an estimated 49,879.912 pounds of active pesticides per square mile – this translates into a percentile score that is worse than all other census tracts in California.

The California Department of Pesticide Regulation maintains a database showing where and when pesticides are used. This indicator represents the reported use of 70 hazardous and volatile pesticides, averaged over each census tract area. Types and concentration of pesticides vary by census tract and include Chloropicrin, Malathion, Methyl Bromide, Chloral Dimethyl, Cycloate, and many others.

Common mitigation measures for pesticide exposure include land use buffers and regulating pesticide use, including limiting when and where applications take place and designating products as restricted use pesticides (RUP). In California, local governing bodies (e.g., boards of supervisors, city councils) may pass ordinances that regulate or restrict pesticide use within their jurisdictions.

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Figure 41. Pesticide Use Percentile Score by Census Tract, City of Santa Maria
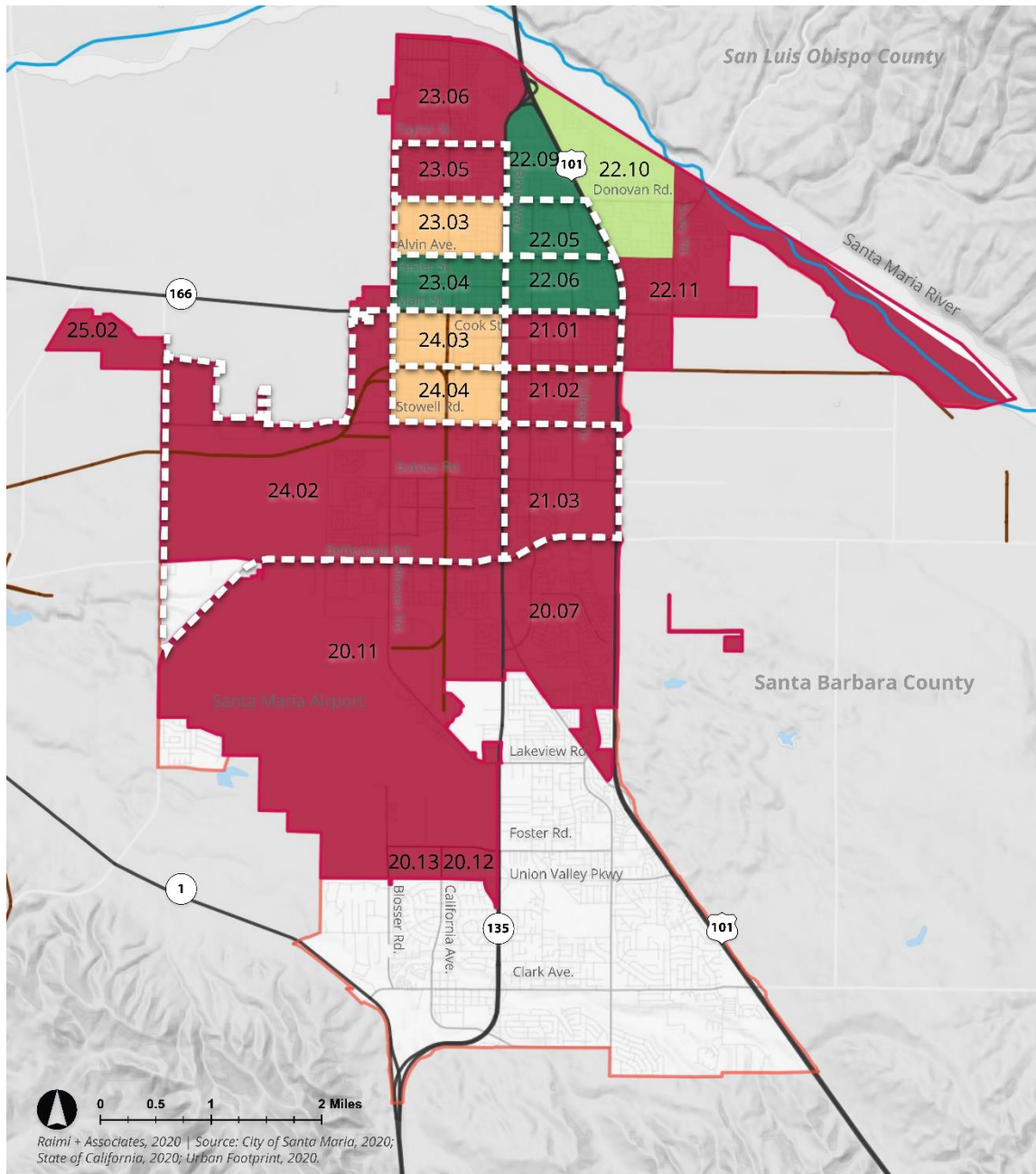
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.

Santa Maria
General Plan
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Legend

- ▭ City Limits
- ▭ Sphere of Influence
- ▭ Water
- ━ Railroads
- ━ Freeways/Highways
- ━ Major Streets
- ━ Local Streets
- ▦ Low-Income and High
  Pollution Burdened Census Tracts

CalEnviroScreen 3.0 (2018) - Pesticide Use Percentile

- ▯ 75 - 100% (Highest Scores)
- ▯ 50 - 75%
- ▯ 25 - 50%
- ▯ 0 - 25% (Lowest Scores)
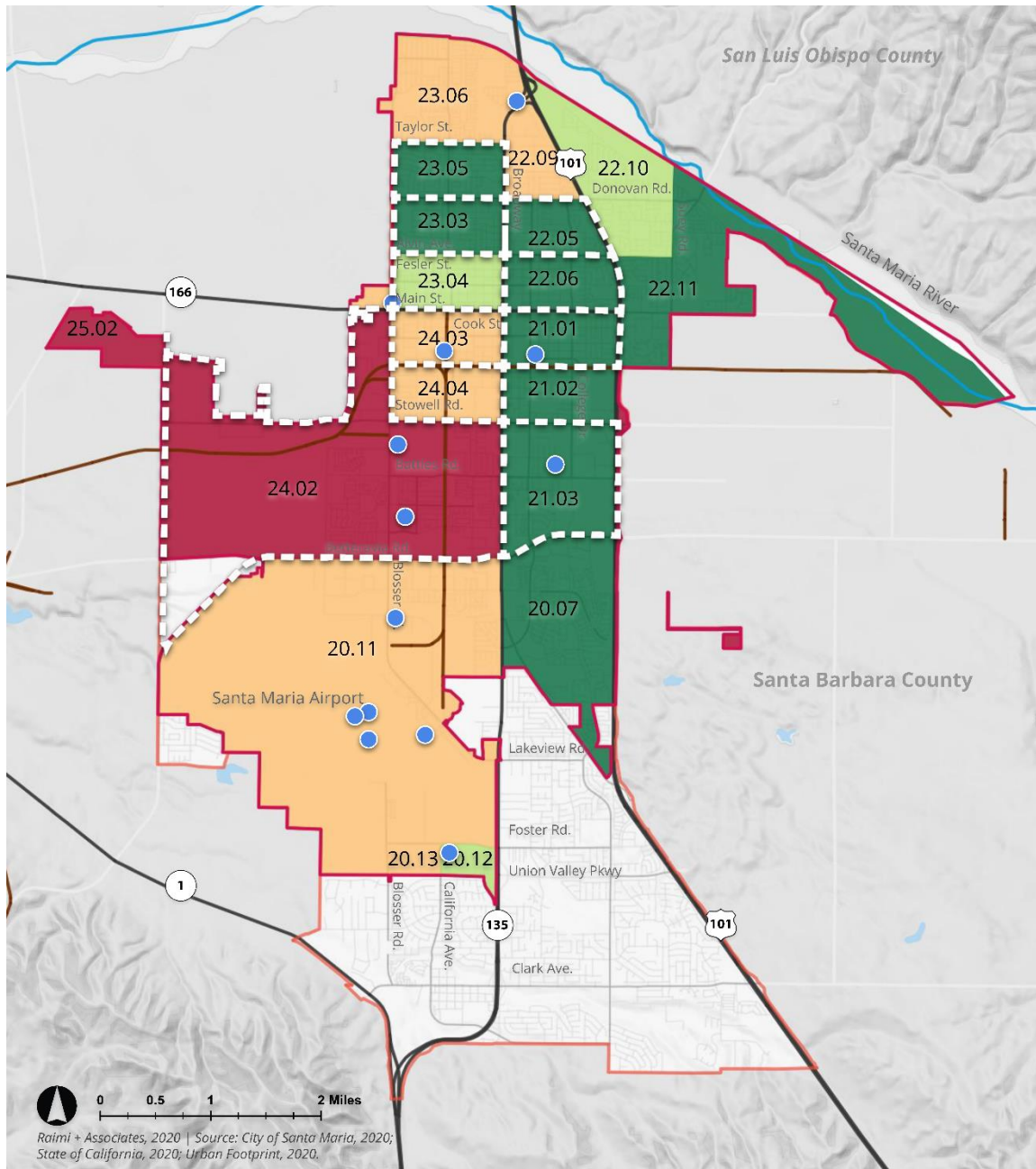
Toxic Waste

Cleanup Sites

Cleanup sites are places polluted with toxic substances. These sites are undergoing cleanup by government authorities or property owners. In some instances, these places are known as "brownfield" or "superfund" sites. Cleaning up sites can take years due to costs, litigation, and liability concerns.

Depending on the nature and degree of air and water contamination, these sites can pose a risk to people who live in proximity or directly interact with the toxic substances. For lead contaminated sites, measuring blood lead levels in children and pregnant women before and after cleanup can provide useful insights on both exposure and efficacy of remediation efforts.

Figure 42 is based on the number of cleanup sites, type of hazardous substance, site status, and proximity to where people live. In Santa Maria, low-income communities in census tract 24.02 are within a kilometer of seven cleanup sites. While some of the sites are currently inactive, identified contaminants have included military munitions (UXO) and explosives of concern (MEC), hazardous waste, and agricultural pesticides.

Several areas flagged in Figure 42 are now being used as school sites. There is a strict environmental process to ensure that sites have been cleaned up to a level that protects the students and staff who will occupy the new school. There is no evidence to suggest any existing risk to neighboring communities.

Figure 42. Cleanup Sites Percentile Score by Census Tract, City of Santa Maria

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.

Legend

- City Limits
- Sphere of Influence
- Water
- Railroads
- Freeways/Highways
- Major Streets
- Local Streets
- Low-Income and High Pollution Burdened Census Tracts

CalEnviroScreen 3.0 (2018) - Cleanup Sites Percentile

- 75 - 100% (Highest Scores)
- 50 - 75%
- 25 - 50%
- 0 - 25% (Lowest Scores)
- Cleanup Sites

Hazardous Waste

Hazardous waste generators are sites that produce hazardous waste. Generators are also responsible for characterizing (or identifying) all their hazardous waste, in addition to transporting the hazardous waste to permitted facilities for recycling, treatment, storage or disposal. Common hazardous wastes are from manufacturing and industrial processes, but there are many types, including solids, liquids, and gases. Hazardous waste sites can result in the contamination of air, water and soil in communities located close to waste generators and facilities – recommended buffering distance to local communities depends on the category of hazardous waste.

Figure 43 is based on the number of permitted waste facilities and hazardous waste generators in each census tract, and the distance from those sites to where people live. Only large generators and generators subject to the Resource Conservation and Recovery Act are included.[137] In Santa Maria, there are five hazardous waste generators and one treatment, storage and disposal facility (TSDF) that impact disadvantaged communities, given the concentration of these facilities to homes and the large generation of waste they produce. All five hazard waste generators are in census tract 20.11, near the Santa Maria Airport. The TSDF site lies on the southern border of census tract 24.02, just north of census tract 20.11.

These types of sites pose a potential threat to nearby communities and the environment in the unexpected case of a hazardous substance release, which can result in eye or skin irritation, headaches, and nausea, and in some cases, fires or other damage to property; in more severe cases, hazardous substance releases can result in cancer, kidney failure, birth defects, and other health issues in humans, in addition to devastating environmental impacts.[138]

Figure 43. Hazardous Waste Sites Percentile Score by Census Tract, City of Santa Maria
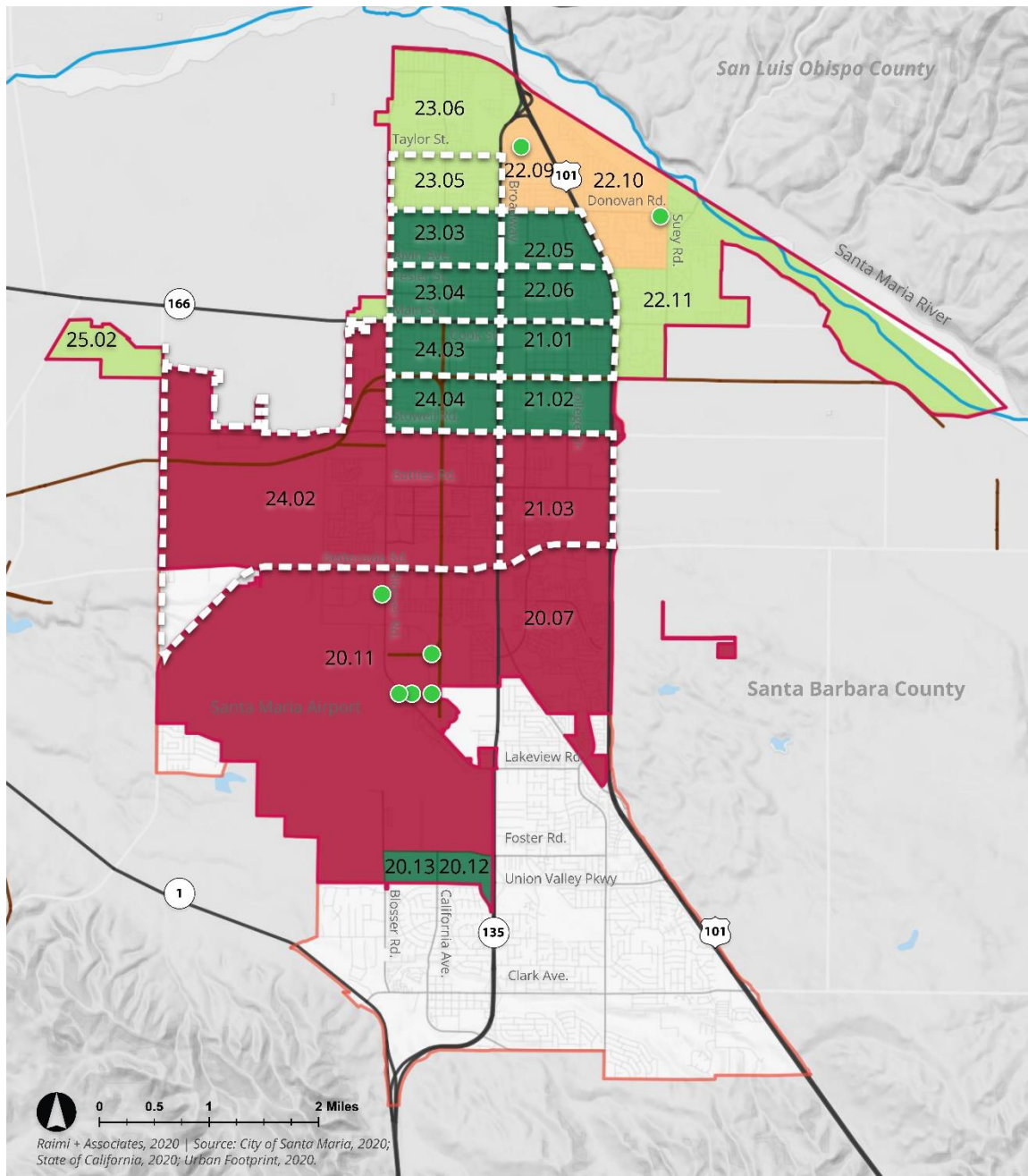
Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.

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Legend
- City Limits
- Sphere of Influence
- Water
- Railroads
- Freeways/Highways
- Major Streets
- Local Streets
- Low-Income and High Pollution Burdened Census Tracts

CalEnviroScreen 3.0 (2018) - Hazardous Waste Percentile
- 75 - 100% (Highest Scores)
- 50 - 75%
- 25 - 50%
- 0 - 25% (Lowest Scores)
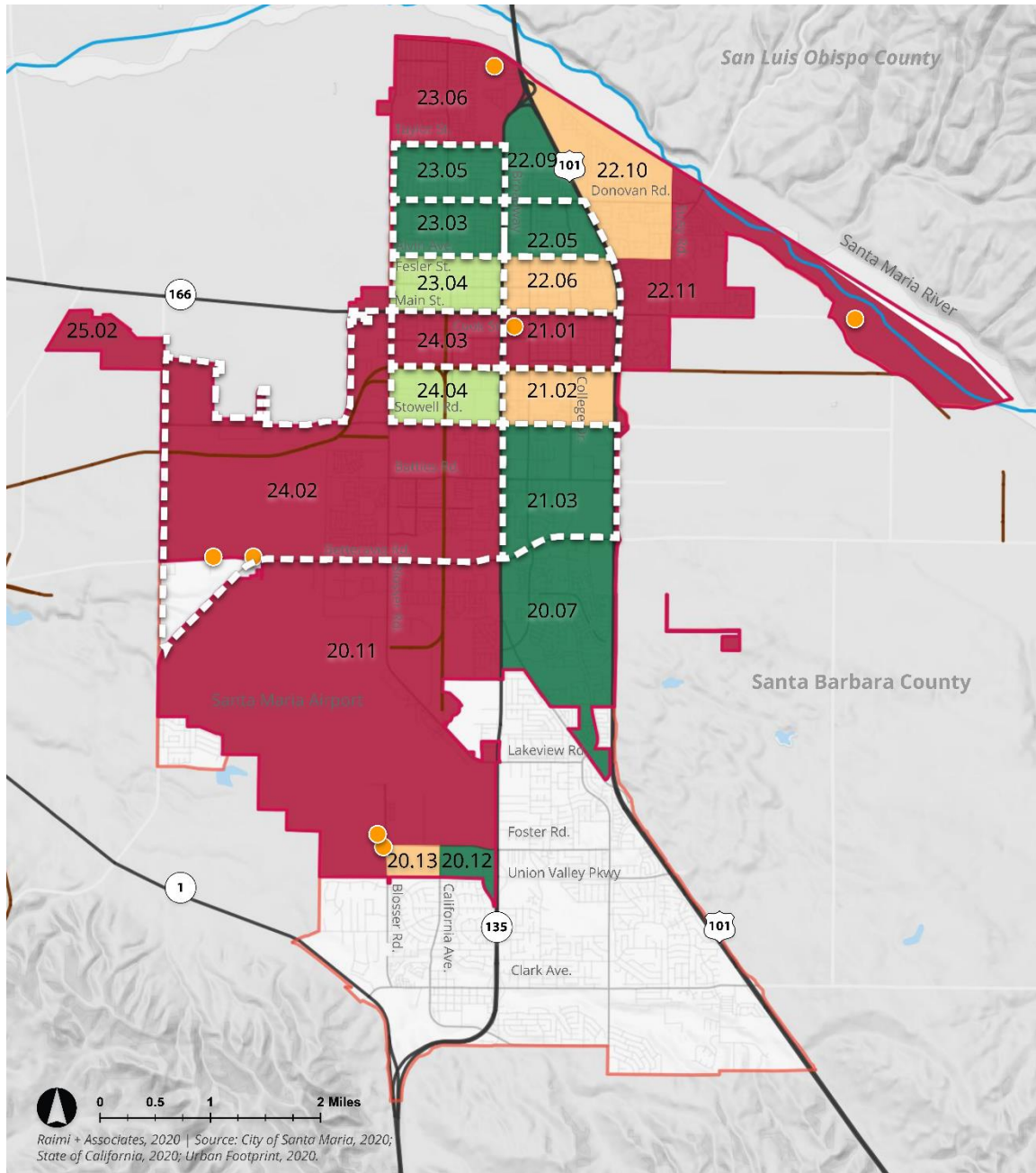- Generators of Hazardous Waste

Solid Waste

Solid waste sites collect, process, and/or store household garbage and other types of waste from industry or commercial sources, including landfills, recycling facilities, transfer stations, and composting facilities. Both regulated and illegal sites and facilities can negatively impact and harm nearby communities, particularly those operating out of compliance with current standards. This indicator is calculated by considering the number of solid waste facilities, operational or non-operational status, quantity of waste handled, existing number of violations, and concentration/proximity to where people live.

It is important to note that solid waste facilities can impact the environment while active and inactive, including toxic gases in the air and hazardous waste in the soil. Additionally, these types of sites can produce health impacts and nuisances for the nearby community, including bad odors, increased pests, and increased truck traffic.

In Santa Maria, there are three disadvantaged communities impacted by three regulated solid waste sites in the city: Santa Maria Regional landfill located in the northwest, just south of the Santa Maria River, Engel & Gray composting site located in the northeast, and Health Sanitation Services, located northwest of the Santa Maria Airport (Figure 44). Nearby communities are considered impacted given the proximity of these facilities to homes and the type of solid waste operation. Potential odors, waste gases, and fires can all impact health and the perceived desirability of a community. Additionally, the potential toxicity of a landfill can negatively impact plant and animal ecosystems.[139]

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Figure 44. Solid Waste Sites Percentile Score by Census Tract, City of Santa Maria

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020; State of California, 2020; Urban Footprint, 2020.
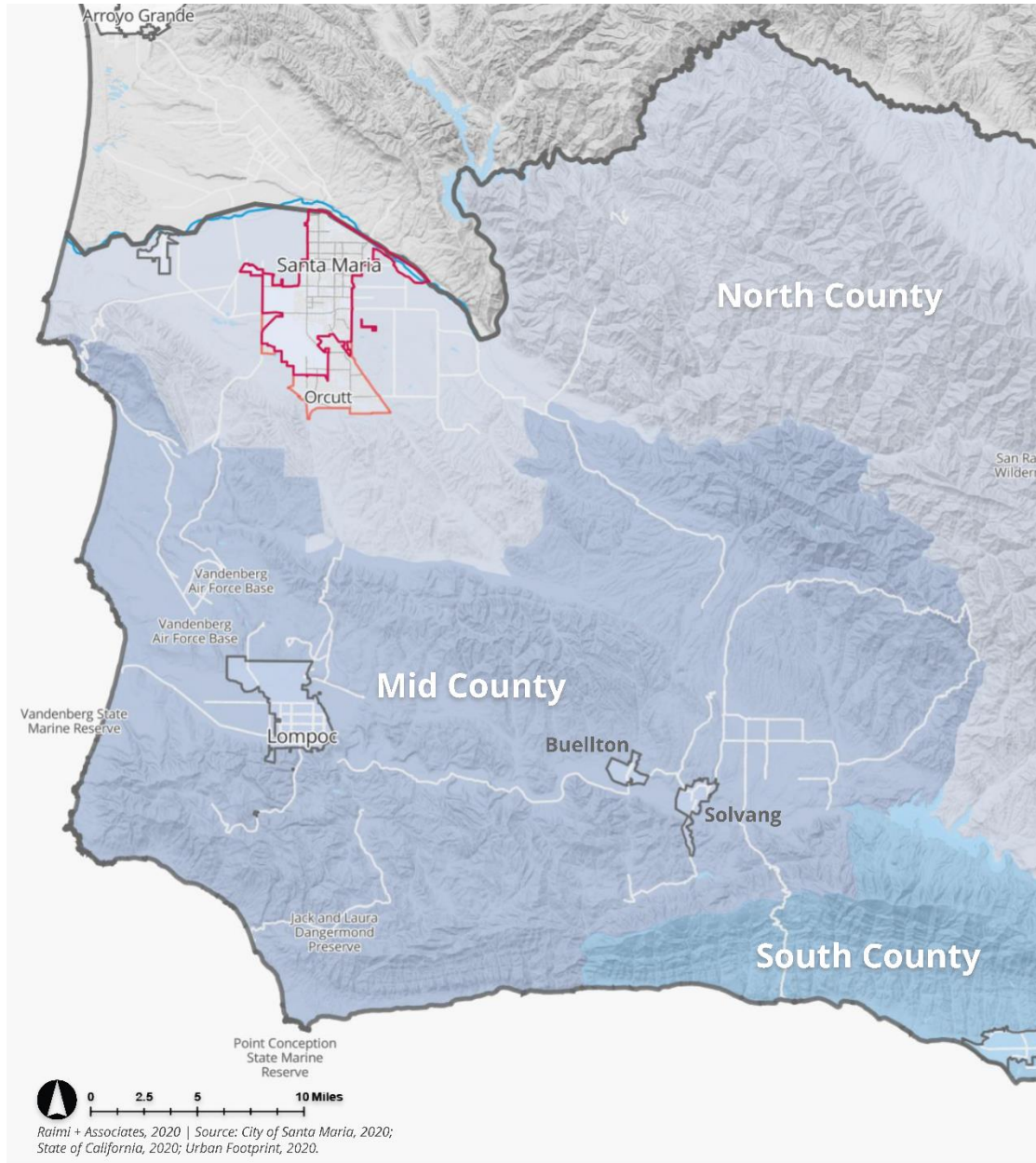
Legend
- City Limits
- Sphere of Influence
- Water
- Railroads
- Freeways/Highways
- Major Streets
- Local Streets
- Low-Income and High Pollution Burdened Census Tracts

CalEnviroScreen 3.0 (2018) - Solid Waste Sites Percentile
- 75 - 100% (Highest Scores)
- 50 - 75%
- 25 - 50%
- 0 - 25% (Lowest Scores)
- Solid Waste Facilities

Appendix G: Reference Maps

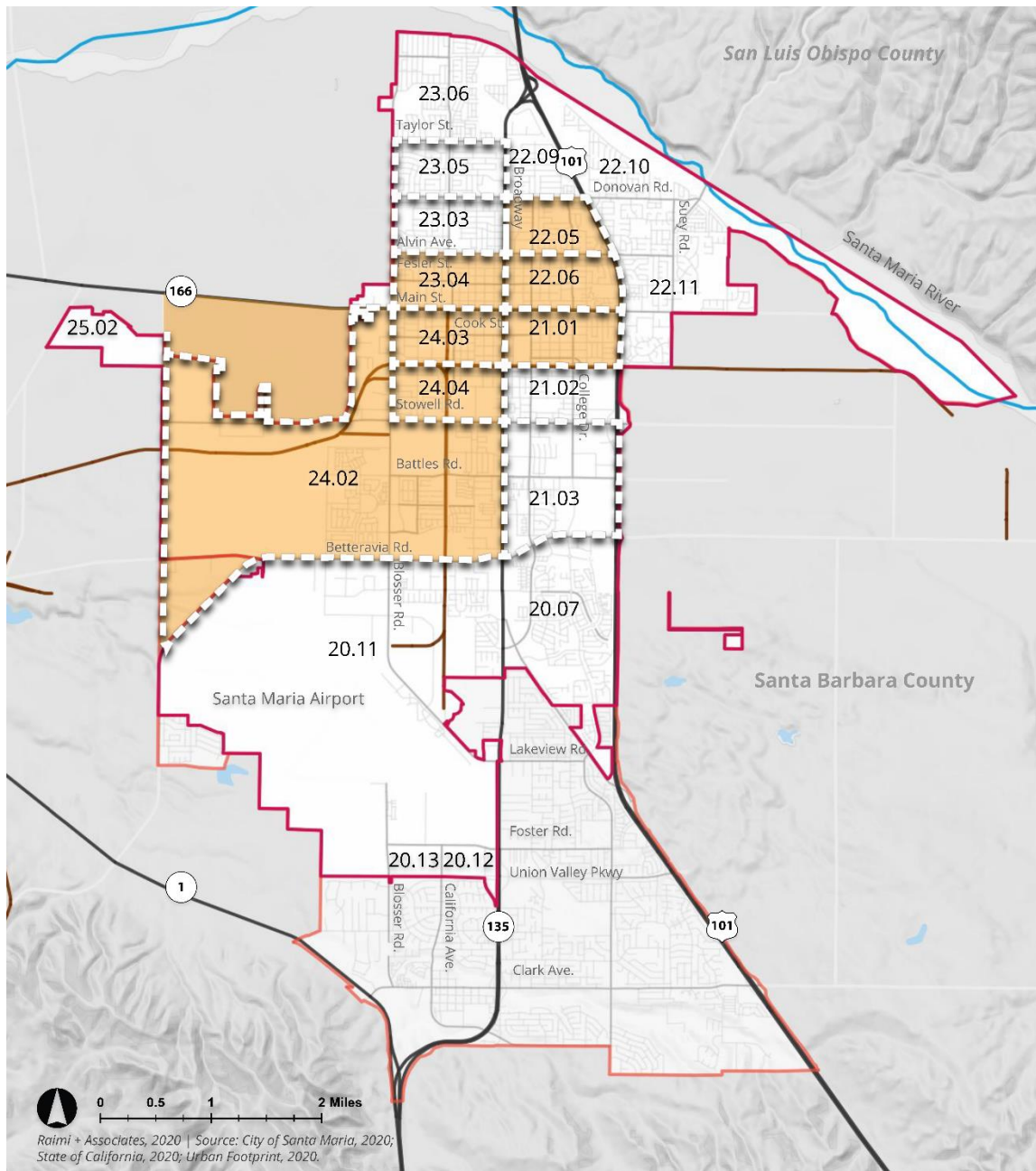## Figure 45. Regional Location Map

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.

Legend

- City Limits
- Sphere of Influence
- Water

Regions

- North County
- Mid County
- South County

Figure 46. High Poverty Areas, City of Santa Maria

Raimi + Associates, 2020 | Source: City of Santa Maria, 2020;
State of California, 2020; Urban Footprint, 2020.

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Legend

City Limits
Sphere of Influence
Water
Railroads
Freeways/Highways
Major Streets
Local Streets
Low-Income and High
Pollution Burdened Census Tracts

High Poverty Areas

High Poverty Tracts (ACS 06-10)

Appendix H: References and Notes

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[121] University of Wisconsin Population Health Institute. (2020). County Health Rankings. Retrieved from: https://www.countyhealthrankings.org/explore-health-rankings

[122] A Health Professional Shortage Area is a Federal designation given to areas that demonstrate a shortage of healthcare professionals, including primary care, dentists, and mental health providers, within certain

geographic areas, population groups, or facilities. Scores are based on a scale of 0-25, the higher the number the greater the need. In Santa Maria, the HPSA score for primary care is 12 and for mental health 17.

[123] "Cleared offenses" refer to when an arrest and charge are made.

[124] Public Health Alliance (2016). Healthy Places Index. Number of Violent Crimes per 1,000 people. Available at: https://map.healthyplacesindex.org.

[125] In 2020, the number of local food programs increased in response to the COVID-19 crisis. Given the uncertainty around the pandemic, only organizations that operate on an established yearly schedule have been listed.

[126] Cushing, L. and et. al. (2015). "Racial/Ethnic Disparities in Cumulative Environmental Health Impacts in California: Evidence From a Statewide Environmental Justice Screening Tool (CalEnviroScreen 1.1)." American Journal of Public Health 105 (11): 2341-2348.

[127] Data and background information for pollution exposures in Santa Maria discussed in this section comes from the CalEnviroScreen 3.0 Documentation Report (June 2018), unless otherwise noted.

[128] Ozone is the main ingredient in smog and comes from the exhaust of trucks, buses, trains, ships, and other equipment with diesel engines. Particulate matter includes a mixture of fine particles from substances such as dust, allergens, and metals and can come from cars and trucks, industrial processes, wood burning, and other activities involving combustion. Exposure to ozone can cause lung irritation, itchy eyes, asthma or heart disease complications, and more adverse impacts. Exposure to PM 2.5 can cause similar impacts and can have long-lasting impacts in children and the elderly.

[129] Santa Barbara County Air Pollution Control District. (2019). Ozone Plan. Retrieved from: https://www.ourair.org/wp-content/uploads/2019-12-19-Final-Plan.pdf

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[132] For additional information, see: https://geotracker.waterboards.ca.gov/map/

[133] Ward, M., and et. al. (2018). "Drinking Water Nitrate and Human Health: An Updated Review." International Journal of Environmental Research and Public Health 15(7): 1557.

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[135] For more details, see: https://www.ksby.com/news/local-news/santa-maria-community-meets-on-the-future-of-oil-drilling and https://santamariatimes.com/news/local/region-s-vast-oil-field-history-now-online/article_d60edfb8-0b89-11e2-9783-001a4bcf887a.html

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[139] Rodriguez, M. and L. Zeise. (2017). CalEnviroScreen 3.0. California Environmental Protection Agency and OEHHA. Retrieved from: https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3report.pdf