



Sonoma County

# Environmental Justice Technical Report

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# Glossary

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**Access to Healthcare**

The timely use of personal health services to achieve the best possible health outcomes.

**Cost Burden**

The extent to which gross housing costs, including utility costs, exceed 30 percent of gross income, based on data available from the U.S. Census Bureau.

**Critically Underserved**

Communities having a ratio of less than three acres of parkland per 1,000 residents as defined by the California Statewide Park Program.

**Disadvantaged Community**

An area identified by the California Environmental Protection Agency (CalEPA) pursuant to Section 39711 of the Health and Safety Code or;

An area that is a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation.

**Disproportionate Effects**

Term used in Executive Order 12898 to describe situations of concern where there exists significantly higher and more adverse health and environmental effects on minority populations, low-income populations, or indigenous peoples.

**Environmental Justice (EJ)**

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 (Government Code Section 65040.12, subd. (e)).

**Fair Treatment**

The principle that no group of people, including a racial, ethnic or a socioeconomic group, should bear a disproportionate share of the negative environmental consequences from industrial, municipal and commercial operations or the execution of federal, state, local and tribal programs and policies. In implementing its programs, CalEPA has expanded the concept of fair treatment to include not only consideration of how burdens are distributed across all populations, but the distribution of benefits as well.

**Food Desert**

A region or neighborhood with a substantial share of residents who live in low-income areas that have low levels of access to a grocery store or a healthy, affordable food retail outlet.

**Food Insecurity**

The condition of not having access to sufficient food, or food of an adequate quality, to meet one's basic needs.

**Linguistic Isolation**

The condition at which there is no person within a household over the age of 14 who speaks English proficiently.

### **Low-Income Community**

A census tract with household incomes at or below 80 percent of the statewide median income or household incomes at or below the threshold designated as low income by the Department of Housing and Community Development’s list of state income limits adopted pursuant to Section 50093 of the Government Code.

### **Meaningful Involvement**

Potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; the public’s contribution can influence the regulatory agency’s decision; the concerns of all participants involved will be considered in the decision-making process; the decision makers seek out and facilitate the involvement of those potentially affected.

### **Minority Populations**

According to the U.S. Census Bureau, population of people who are not single-race white and not Hispanic. Populations of individuals who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.

### **Overcrowding**

A unit occupied by 1.01 persons or more per room (excluding bathrooms and kitchens).

### **Percentage**

A ‘percentage’ is not a relative score. A ‘percentage’ is simply a score assigned to a subject out of a hundred.

### **Percentile**

A “percentile” rank is a way of ordering subjects compared to others in a sample. For a given dataset, percentile represents that value in the distribution or level, at or below which, a certain percentage of score lies.

### **Pollution Burden**

The potential exposures to pollutants and the adverse environmental conditions caused by pollution.

### **Public Facilities**

Public facilities include, but are not limited to, public improvements, services, and community amenities. These facilities may include government buildings, schools, public transit, public open space, streets and roads with safe and adequate infrastructure, as well as community and cultural centers.

### **Tribes**

When used in this document, “tribes” refers to federally recognized tribes. Federally recognized tribes include any Indian or Alaskan Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to the Federally Recognized Indian Tribe List Act of 1944, 25 U.S.C.479a.

# 1 Introduction

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## 1.1 Purpose

The following report provides a desktop analysis of the environmental justice context in unincorporated Sonoma County. The report was developed to inform the creation of policies focused on environmental justice for the County's General Plan 2020, consistent with the latest State legislation. In 2016, California Government Code Section 65302 expanded the mandatory requirements of the General Plan to require an emphasis on the role of environmental justice in urban planning. Cities and counties with disadvantaged communities, as defined, are required to adopt an environmental justice element in their general plan or integrate environmental justice policies into the elements of their general plan "upon the adoption or next revision of two or more elements concurrently."<sup>1</sup> To inform policies related to environmental justice, public agencies must assess the existing environmental justice issues facing their jurisdiction. In addition to the research presented in this report, the County is in the process of soliciting input from community members, community leaders, community-based organizations, Tribal governments, and other nongovernmental agencies to further inform a baseline understanding of the environmental justice issues facing Sonoma County. In concert with this report, input gained during the community engagement process will help to shape the County's General Plan environmental justice policies.

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<sup>1</sup> Government Code Section 65302(h)(2)

<sup>2</sup> California Environmental Justice Alliance (CEJA). 2017. SB 1000 Implementation Toolkit. <https://caleja.org/2017/09/sb-1000-toolkit-release/> (accessed March 2023).

## 1.2 Environmental Justice

### What is Environmental Justice?

Historically, negative environmental impacts have disproportionately affected marginalized populations, including low-income communities and racial/ethnic minorities.<sup>2</sup> These communities often face a range of environmental burdens including increased exposure to air pollutants, unsafe drinking water, and contaminated facilities/structures, and commonly have relatively limited access to public resources. This inequity can be traced to discriminatory governmental policies and actions, land-use planning trends, enforcement deficiencies, and lack of equitable community engagement, among other factors.

Environmental justice is a concept focused on addressing the systemic, unjust environmental burdens placed on historically disadvantaged communities, especially low-income populations and people of color. California law 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."<sup>3</sup> Efforts towards environmental justice have aimed to improve the status of historically disadvantaged communities through equitable planning and policy decisions. In California, the Planning for Healthy Communities Act of 2016 (Senate Bill 1000) was established to

<sup>3</sup> Government Code Section 65040.12, subd. (e)

integrate environmental justice in local and regional planning practice. Senate Bill 1000 requires jurisdictions to identify disadvantaged communities (termed “Environmental Justice (EJ) Communities” in Sonoma County) within their planning area and incorporate environmental justice into their general plans through targeted policies. These policies shall do the following:

“Identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities by means that include, but are not limited to, the reduction of pollution exposure, including the improvement of air quality, and the promotion of public facilities, food access, safe and sanitary homes, and physical activity.

Identify objectives and policies to promote civic engagement in the public decision-making process.

Identify objectives and policies that prioritize improvements and programs that address the needs of disadvantaged communities.<sup>4</sup>”

Section 3 of this report outlines how Sonoma County’s EJ Communities were identified in compliance with Senate Bill 1000 and the Governor’s Office of Planning and Research (OPR) General Plan Guidelines.

## **Environmental Determinants of Health**

People’s health and opportunity are influenced by multiple factors, including their built and social environments. This report is measuring the negative impacts of environmental conditions across six key focus areas, which are required to be addressed in general plans by the California Government Code. These six focus areas are

referred to throughout this report as environmental determinants of health:

- Pollution Burden
- Access to Public Facilities, Services, and Community Amenities
- Health and Physical Activity
- Healthy Food Access
- Safe and Sanitary Housing
- Civic Engagement in the Public Decision-Making Process

Sections 4 through 9 of this report summarize the existing environmental conditions across these topic areas affecting EJ Communities in the County.

## **1.3 A Note on Data**

This report largely uses data at the census tract level. A census tract is a geographic boundary that is often the smallest geographic scale for which complete data is available. Census tracts may not follow commonly understood neighborhood boundaries. To help understand the findings and maps in this report, Table 2 provides general community names for each census tract identified as an EJ Community.

Much of the data that informed this report was obtained from the California Environmental Protection Agency’s (CalEPA) CalEnviroScreen tool, a data-based index that provides a relative, rather than absolute, evaluation of pollution burden and health vulnerabilities across California. CalEnviroScreen ranks each census tract in California relative to other census tracts by providing percentile scores for 21 indicators of pollution burden and health

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<sup>4</sup> California Government Code Section 65302(h)(1)



vulnerability. These percentile scores are referenced throughout this report to demonstrate how EJ Communities in Sonoma County are impacted relative to other communities across California.

Other primary data sources include the U.S. Census American Community Survey (ACS) and information derived from relevant plans, reference materials, and reports prepared by County agencies and departments, or local community organizations that are actively engaged in efforts to improve the lives of residents of Sonoma County.

The summary of community conditions in this report is not exhaustive and does not incorporate the lived experiences of Sonoma County residents and employees. This report is intended to serve as a “desktop” technical summary of environmental factors that may influence health in Sonoma County. For a more complete understanding of the environmental justice issues in Sonoma County, community engagement and outreach will be conducted throughout the planning process and will prioritize opportunities to involve and gain input from EJ Communities.

## 2 Community Background and Local Historic Context

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Historically, and still today, environmental impacts disproportionately affect low-income residents, people of color, and other marginalized communities. Understanding the historic context and local demographics in Sonoma County is fundamental to developing comprehensive and equitable environmental justice policies.

### 2.1 Notable Community History

Sonoma County has a rich history characterized by a multitude of diverse cultures. The first residents of Sonoma County were Native American tribes, including the Pomo, Coast Miwok, and Wappo tribes, who lived in the region for approximately 12,000 years prior to European arrival.<sup>5</sup> The Coast Miwok tribe occupied southern parts of the County from Petaluma, Valley Ford and the city of Sonoma, and west to the Pacific Ocean and Bodega Bay. The Central Wappo tribe lived in the northern part of the Russian River Valley, around northern Santa Rosa and Healdsburg. The Western Wappo territory consisted of the Alexander Valley from Lytton Springs to the Geyserville area. The Kashia Pomo tribe resided in the central coast area of the County, from Bodega to Stewart's Point. The Southern Pomo inhabited the area surrounding Highway 101, from Rohnert Park to Cloverdale.<sup>6</sup>

Father Jose Altimer, a Spanish missionary, founded the Mission San Francisco Solano de Sonoma in what is now the city of Sonoma and planted several thousand grapevines surrounding the mission.<sup>7</sup> Once the mission was established, many Native Americans were converted to Catholicism and forced to work on farms. Throughout the remainder of the 19<sup>th</sup> Century, the Native American population severely declined due to disease, enslavement, and confiscation of tribal lands.<sup>8</sup> Areas that were once populated by Native American tribes were bestowed to Mexican citizens as large land grants called rancheros.<sup>5</sup>

Throughout the latter half of the 19<sup>th</sup> Century, Chinese immigrants, many of whom arrived during the gold rush and to work on the railroads, planted the majority of the County's grapevines. Racial tensions between white and Chinese residents grew during this time. White residents prevented Chinese residents from being hired and refused patronage to shops that employed Chinese workers, forcing Chinese residents to move away which caused the Chinese population in Sonoma County to drop drastically.<sup>9</sup>

During the early 20<sup>th</sup> Century, a large number of Mexican immigrants came to work on vineyards throughout the County. Between, 1942 and 1964, thousands of Mexican immigrants were permitted to work in the United States through the Bracero Program, leading to considerable growth of the Mexican population

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<sup>5</sup> City of Sonoma. 2017. History of Sonoma. <https://www.sonomacity.org/history-of-sonoma/>

<sup>6</sup> Sonoma County Tourism. 2023. Native American Heritage in Sonoma County. <https://www.sonomacounty.com/articles/native-american-heritage-sonoma-county>

<sup>7</sup> County of Sonoma. 2023. Sonoma County Historic Overview. <https://permitsonoma.org/divisions/planning/historicresources/sonomacountyhistory/sonomacountyhistoricoverview>

<sup>8</sup> Sonoma Valley Visitors Bureau. 2023. About Sonoma Valley. <https://www.sonomavalley.com/plan-your-visit/about-sonoma-valley/>

<sup>9</sup> Grace Hwang Lynch. 2017. Chinese Laborers Built Sonoma's Wineries. Racist Neighbors Drove Them Out. <https://www.npr.org/sections/thesalt/2017/07/13/536822541/the-forgotten-chinese-who-built-sonoma-s-wineries>

in Sonoma County. Termination of the Bracero Program ended Mexican immigration to the United States. Afterward, about 5,000 former Braceros stayed in Sonoma County and began to form their own ties to the community with help from local Catholic churches.<sup>10</sup> During the 1980s and 1990s, immigration to California from Mexico and Latin America increased again but has since plateaued.<sup>11</sup>

Today, Sonoma County is still a diverse community with populations from various racial and ethnic backgrounds. The County's population has doubled since 1980, with a population of approximately 482,650 residents in 2022.<sup>7</sup> The majority of the population identifies as non-Hispanic/non-Latino white (62 percent of the total population). The largest racial/ethnic minority consists of Hispanic/Latino residents (28 percent of the total population), followed by Asian/Pacific Islander residents (five percent of the total population). Black/African American and Native American/Alaskan Native residents each make up only two percent of the population.<sup>12</sup> About 15 percent of County residents were born outside of the United States and an estimated 29,000 residents are undocumented immigrants.<sup>11</sup>

Much of the County land remains in agricultural use, with cattle grazing and dairy farms in southwestern parts of the County and vineyards covering northern parts of the County. Farmworkers play a vital role in the current economic landscape of the County. In 2017, 6,715 permanent farmworkers and 7,664 seasonal farmworkers were employed in Sonoma County, a number that is steadily growing each year. Cities along Highway 101 are growing in population as well and provide housing and services with a mix of business parks and commercial shopping centers.<sup>7</sup> Alongside

agriculture, tourism represents another significant industry within the County, accounting for over 17,000 jobs. Many tourism-related jobs are located in the unincorporated County and provide low wages that fail to keep up with the rising cost of living. In recent years, the County has been challenged by wildfires and the Covid-19 pandemic, which have worsened the affordable-housing shortage, economic insecurity, and health impacts that disproportionately harm minority communities.<sup>11</sup>

## 2.2 Planning Area Description

The County's General Plan establishes a blueprint for land use, development, and public action for the unincorporated areas of Sonoma County not governed by the nine incorporated cities. This report analyzes the environmental justice context for all census tracts in the unincorporated County, referred to as the "planning area." This planning area was used to determine the location of Environmental Justice (EJ) Communities within the unincorporated County. The State of California also designates all lands under the control of federally recognized Tribes as disadvantaged (Senate Bill 535), which includes Stewarts Point Rancheria, Dry Creek Rancheria, and the Kashia Coastal Reserve within Sonoma County. The Kashia Coastal Reserve qualified as a disadvantaged area since the lands were purchased and returned to the Kashia Band of Pomo Indians. However, this area is currently uninhabited. Therefore, the Kashia Coastal Reserve is not discussed in any further detail for the purpose of this report. The Sonoma County planning area is depicted in light brown in Figure 1, below.

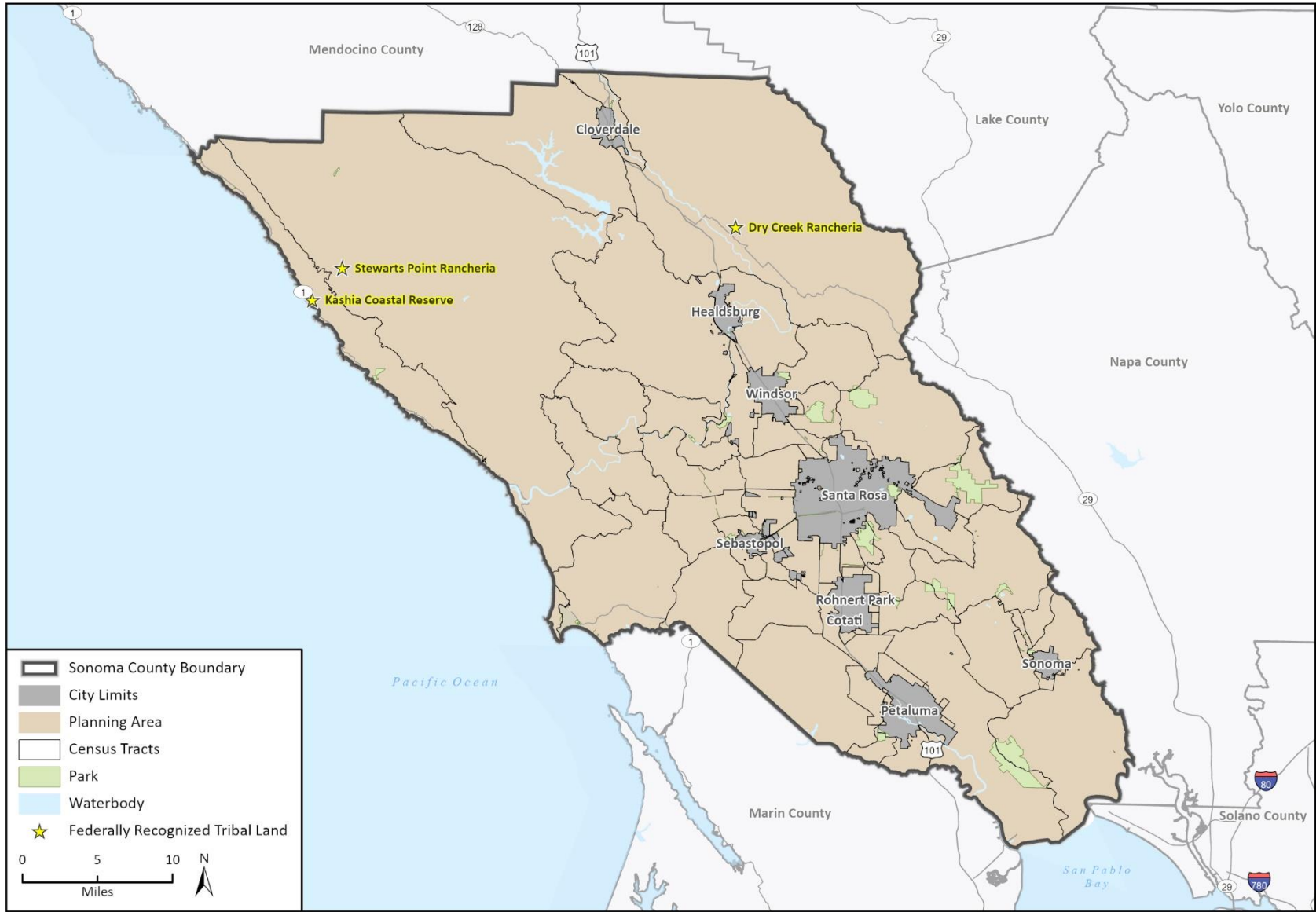
<sup>10</sup> Museum of Sonoma County. 2023. The Bracero Program. <https://museumsc.org/bracero-program/>

<sup>11</sup> Measure of America of the Social Science Research Council. 2022. A Portrait of Sonoma County: 2021 Update.

<https://upstreaminvestments.org/Microsites/Upstream%20Investments/Documents/Archive/Portrait-of-Sonoma-County-2021-Report.ADA.pdf>

<sup>12</sup> U.S. Census Bureau. 2023. Quickfacts, Sonoma County, California. <https://www.census.gov/quickfacts/sonomacountycalifornia>

Figure 1 Planning Area



Basemap provided by Esri and its licensors © 2024.  
Additional data provided by CalEnviroScreen 4.0, 2021; Bureau of Indian Affairs, 2023.

22-12991 EPS Sonoma Co EJ Tech Report.aprx  
Fig 1 Sonoma County Planning Area

## 3 Environmental Justice (EJ) Community Identification

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### 3.1 State Guidance

Senate Bill 1000 (Government Code Section 65302) defines disadvantaged communities as:

“An area identified by the California Environmental Protection Agency (CalEPA) pursuant to Section 39711 of the Health and Safety Code or;

An area that is a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation.”

This definition provides public agencies two ways to identify disadvantaged communities: CalEPA’s designated disadvantaged areas, or any area that is low-income that experiences disproportionate environmental burdens. Many jurisdictions, including Sonoma County, use a combination of both approaches as recommended by the California Office of Planning and Research (OPR).

Senate Bill 1000 defines a low-income community as:

“A census tract with household incomes at or below 80 percent of the statewide median income or household incomes at or below the threshold designated as low income by the Department of Housing and Community Development’s list of

state income limits adopted pursuant to Section 50093 of the Government Code.”

This definition also establishes two ways to identify low-income communities further explained below:

- 1) A median household income at or below 80 percent of California’s median income (\$90,100 in 2021<sup>13</sup>); or
- 2) A median household income at or below the Department of Housing and Community Development’s low-income threshold based on each census tracts average household size.

Census tracts within the planning area that have median household incomes meeting either of these thresholds were considered low-income for the purposes of Environmental Justice (EJ) Community identification.

### 3.2 Methodology Summary

To identify EJ Communities within Sonoma County, the County first utilized CalEPA’s CalEnviroScreen 4.0 to identify any area classified by the CalEPA as “disadvantaged.” The tool uses a formula-based system to assign all California census tracts with a score that represents a community’s environmental burden. This score is known as the CalEnviroScreen *Overall Score*. The State designates communities with a CalEnviroScreen *Overall Score* within or above

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<sup>13</sup> California Department of Housing and Community Development. 2021. Revised State Income Limits for 2021. <https://www.hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits/docs/Income-Limits-2021.pdf>

the 75<sup>th</sup> percentile as disadvantaged communities.<sup>14</sup> No communities in the planning area are within or above the 75<sup>th</sup> percentile in CalEPA's CalEnviroScreen 4.0 tool.

After using CalEnviroScreen, the County evaluated census tracts with significant pollution and housing burdens. Census tracts that met either of the two criteria below are identified as EJ Communities in this report:

- Any planning area census tract that scored at or above the 50<sup>th</sup> percentile for the CalEnviroScreen 4.0 *Overall Pollution Burden* metric;
- Or,
- Any planning area census tract that is low-income and has one of the following accompanying conditions:
    - The census tract has any individual pollutant indicator at or above the 75<sup>th</sup> percentile; **or**
    - The census tract has a housing burden score at or above the 75<sup>th</sup> percentile.

This methodology was developed with input from the County's Equity Working Committee (EWC), an advisory group composed of community members assembled by the County project team to guide the planning process for the Environmental Justice and Public Safety Element updates to the County's General Plan. Three potential methodologies were presented to the EWC for feedback and selection. The EWC also reviewed other tools and reports that

evaluate vulnerability and health to vet the chosen methodology, including the Center for Disease Control Social Vulnerability Index<sup>15</sup>, the California Healthy Places Index<sup>16</sup>, and the 2021 update to the Portrait of Sonoma County Human Development Index.<sup>17</sup>

Housing burden was identified by the EWC as one of the most important determinants of well-being. Housing-burdened households spend a greater proportion of their income on housing, which has cascading impacts on health. Housing-burdened households have fewer financial and time resources available for health care, healthy food, and healthy behaviors such as exercise. High housing costs relative to income often force individuals and families into unhealthy living conditions, including overcrowded or unsafe housing (e.g. mold and lead exposure, water intrusion, pest infestation, etc.). The risk for and experience of displacement can also impact both mental and physical health, and exacerbate health impacts. Because access to safe, decent, and affordable housing is inherently linked to other environmental inequities, housing burden was included as a factor in determining which census tracts in Sonoma County should be considered EJ Communities.

Table 1 identifies the EJ Communities in the Sonoma County planning area by census tract number and name as used in the Portrait of Sonoma County. Table 1 also specifies which EJ Community census tracts have been identified by the Metropolitan Transportation Commission (MTC) as Equity Priority Communities, which are census tracts that are or have historically been underserved.<sup>18</sup> The table contains an overview of the various

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<sup>14</sup> A 'percentile' rank is a way of ordering subjects compared to others in a sample. For a given dataset, percentile represents that value in the distribution or level, at or below which, a certain percentage of score lies. In contrast, a 'percentage' is not a relative score. A 'percentage' is simply a score assigned to a subject out of a hundred.

<sup>15</sup> Center for Disease Control. 2023. CDC/ATSDR Social Vulnerability Index. <https://www.atsdr.cdc.gov/placeandhealth/svi/index.html> (accessed June 2023).

<sup>16</sup> Public Health Alliance of Southern California. 2023. Healthy Places Index. <https://www.healthylacesindex.org/> (accessed June 2023).

<sup>17</sup> Sonoma, County of. 2021. Portrait of Sonoma County: 2021 Update. <https://upstreaminvestments.org/impact-make-a-change/portrait-of-sonoma-county> (accessed March 2023).

<sup>18</sup> Metropolitan Transportation Commission. 2024. Equity Priority Communities. <https://mtc.ca.gov/planning/transportation/access-equity-mobility/equity-priority-communities> (accessed April 2024).

indicators used to qualify each identified EJ Community. The location of the 22 EJ Communities as well as the three EJ Tribal Communities are identified in the Sonoma County planning area are shown in Figure 2, below. Each table within this report

organizes EJ Communities in the planning area by region within the County (i.e., Northwest County, Central West County, Central County, South County).

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**Table 1 Environmental Justice Communities Criteria**

Census Tract	Low Income?	Housing Burden	Overall Pollution Score	Pollutant Indicators (Percentiles)												
				Ozone	P.M 2.5	Diesel PM	Pesticide	Toxic Release	Traffic	Drinking Water	Lead	Cleanup Sites	Groundwater Threats	Hazardous Waste	Impaired Water Bodies	Solid Waste
<b>Sonoma County</b>	N/A	N/A	25	10	9	35	46	9	41	30	36	17	61	39	50	43
<b>Northwestern</b>																
East Cloverdale	Yes	51	50	17	5	25	70	<1	8	25	85	86	86	36	59	80
West Cloverdale	Yes	24	18	17	3	2	50	<1	4	24	24	86	61	17	67	68
Jenner/ Cazadero	Yes	32	34	12	2	<1	45	<1	1	68	51	82	70	17	7	90
<b>Central West</b>																
Guerneville	Yes	81	10	12	2	2	58	1	9	9	70	0	35	4	59	87
Forestville/Rio Nido	Yes	36	27	12	3	5	73	1	22	49	39	0	76	36	72	72
Russian River Valley	Yes	45	32	12	3	15	77	1	11	68	41	0	68	17	77	95
Monte Rio**	Yes	90	15	12	3	2	55	<1	5	41	58	0	52	17	59	83
<b>Central</b>																
Middle Rincon South*	Yes	63	8	11	9	61	2	1	52	5	36	0	81	17	51	3
Brush Creek*	Yes	54	8	11	9	66	0	1	49	5	32	0	81	19	51	3
Kawana Springs	Yes	47	23	8	8	34	53	3	41	38	46	4	82	54	51	12
Olivet Road*	Yes	6	19	8	8	18	60	2	39	5	28	6	70	46	51	76
Taylor Mountain	Yes	68	78	8	9	77	52	4	85	64	36	64	97	76	51	87
Wright**	Yes	47	51	6	7	17	60	2	34	18	51	62	96	85	67	90
Bellevue**	Yes	83	58	6	8	31	26	5	73	69	47	46	89	76	44	98
West End*	Yes	40	47	11	9	66	0	2	77	5	62	38	98	58	44	91
Shiloh South	No	36	67	11	7	50	78	1	77	23	33	97	60	93	33	98
<b>Southern</b>																
McKinley	Yes	39	64	11	13	68	26	23	85	18	74	58	88	63	51	59
Downtown Cotati	Yes	14	27	6	10	69	43	6	70	24	24	0	41	17	77	64
West Cotati/ Penngrove	Yes	84	65	8	9	29	55	13	60	50	38	64	83	80	77	89
Fetters Springs/Agua Caliente West**	Yes	86	17	14	12	37	62	40	32	19	72	0	60	4	24	0
Petaluma Airport/ Arroyo Park	No	13	63	12	12	11	68	32	64	37	7	43	93	78	97	98
Sonoma City South/ Vineburg	Yes	61	10	14	16	39	76	45	9	36	7	0	32	27	24	0

Note: Cells highlighted in green denote indicators that meet criteria for EJ Communities

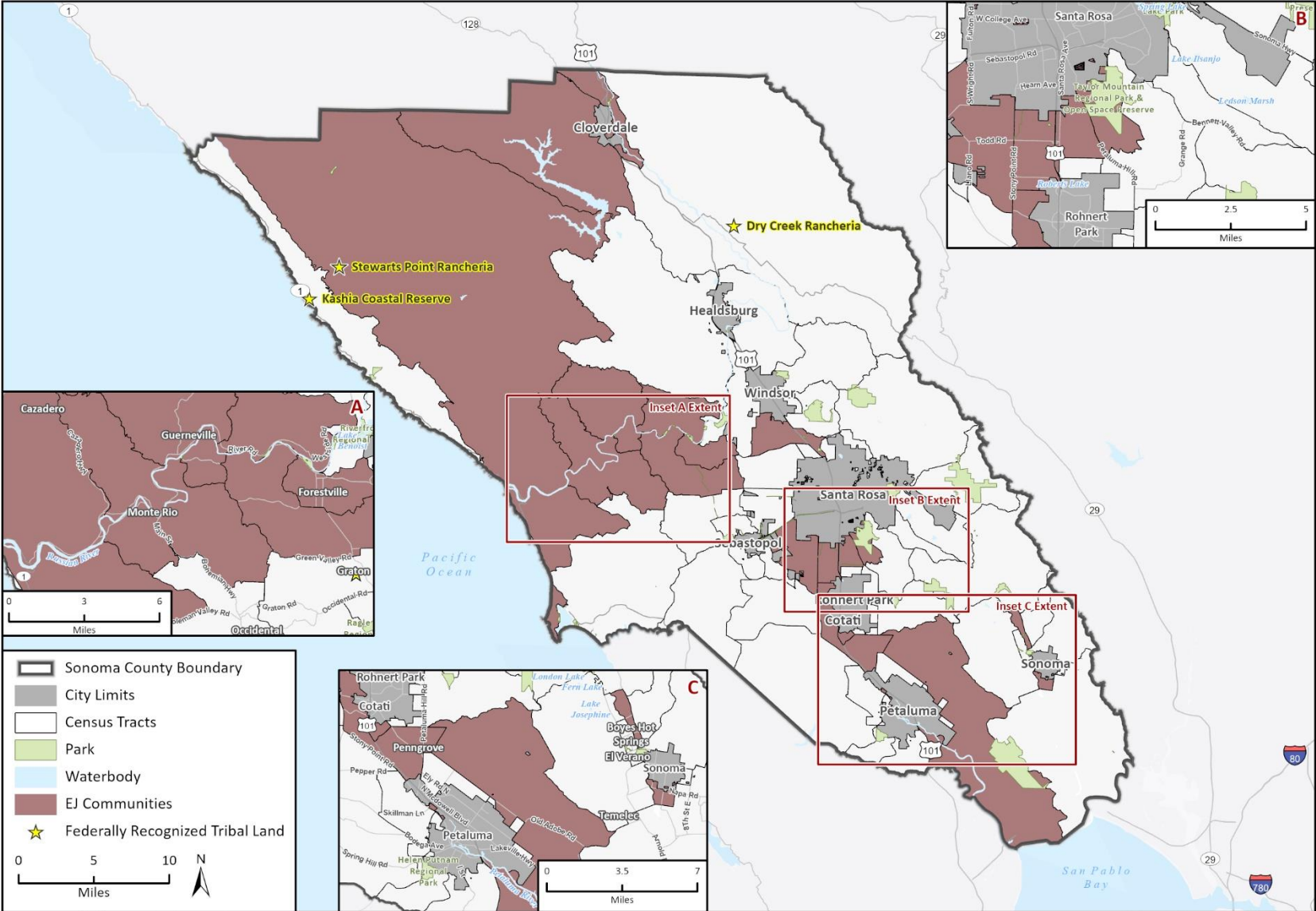
\* Unincorporated island in City of Santa Rosa

\*\* Metropolitan Transportation Commission (MTC) Equity Priority Community

Sources: CalEnviroScreen 4.0; Center for Disease Control Social Vulnerability Index; California Healthy Places Index; Portrait of Sonoma County Human Development Index

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Figure 2 Environmental Justice Communities in the Planning Area



Basemap provided by Esri and its licensors © 2024.  
Additional data provided by Sonoma County, 2022; CalEnviroScreen 4.0, 2022; Priority Population Investments 4.0, 2022; Bureau of Indian Affairs, 2023.

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Fig.X Sonoma County DACs

### 3.3 Sonoma County EJ Communities

Table 2 and Table 3 provide an overview of demographics and characteristics of each of the EJ Communities present in Sonoma County. Table 2 includes the census tracts and community names of each EJ Community along with total population, the 2021 Portrait of Sonoma County Human Development Index score, and a general description of the area. Note that population estimates may not accurately represent the population of residents in each census tract living within the unincorporated areas of Sonoma County because some census tracts are partially within incorporated City limits.

Table 3 includes the racial and ethnic makeup of each EJ Community, median household income, age demographics, and educational attainment of the residents within each EJ community, and the rates of unemployment. As seen in the table below, many of the EJ Communities have median household incomes lower than that of the median household income for the entire County. In addition, for some EJ Communities, the rate of residents who either did not complete high school or 9<sup>th</sup> grade is higher on average. Unemployment rates vary across EJ Communities. However, at least 15 of the EJ Communities either meet or exceed the County's unemployment rate.

**Table 2 Overview of EJ Communities**

Census Tract Number	Name	Population	Portrait of Sonoma County Human Development Index (HDI) Score	Description
<b>Northwestern</b>				
1542.01	East Cloverdale	3,959	4.37	The East Cloverdale EJ Community includes the unincorporated area east of Cloverdale city limits to River Road and Geysers Road, extending north to the County boundary and south to Asti. The area largely hosts agricultural lands with some industrial land near the Cloverdale Municipal Airport and the Highway 101/Highway 128 connection, and a few rural residential neighborhoods northeast of the City of Cloverdale. The Cloverdale River Park is one of A Highway 101 runs north to south through the Community, which predominantly wineries and other agricultural functions, The Russian River trails through the East Cloverdale lined with vineyard properties directly east of the City. Cloverdale River Park offers Russian River access.
1542.02	West Cloverdale	6,050	5.93	The West Cloverdale EJ Community includes the unincorporated area west of Cloverdale city limits and Dutcher Creek Road, south to Stewarts Point Skaggs Springs Road and west to Rockpile Road, including the northern half of Lake Sonoma. The area including and abutting Lake Sonoma is publicly owned with agricultural and resource lands encompassing the majority of the Community. Small rural residential neighborhoods and industrial areas are located near the southern and northern city limits of Cloverdale.
1543.04	Jenner/Cazadero	2,455	5.30	The Jenner/Cazadero EJ Community is the largest in acreage spanning as far south as Bodega Bay to the northern boundary of the County, and to the east to include Cazadero, Annapolis, and the lower half of Lake Sonoma. The Community includes the coastal communities along Highway 1 until shortly past Jenner, where the borders narrow east and continue to extend north. The Community includes the Sereno Del Mar, Carmel by the Sea, and Jenner by the Sea subdivisions among others. Most of the Community is agricultural and resource land on mountainous terrain, with the exception of Lake Sonoma and other publicly owned lands and parks along the coast. Jenner and Bodega Bay have small commercial areas along Highway 1.
<b>Central West</b>				
1537.04	Guerneville	4,071	4.80	The Guerneville EJ Community abuts the Monte Rio EJ Community to the northeast, and includes the unincorporated communities of Guerneville and Rio Nido, the latter of which consists mainly of summer homes and cabins as well as a bar/restaurant, public pool, small resort hotel, and theatre. The Community also contains Armstrong Redwoods State Park. The town of Guerneville has a commercial core surrounded by visitor serving commercial uses near the Russian River. Outside of the core commercial and visitor serving areas are single family residential neighborhoods, and small pockets of rural residential development, and agricultural and natural resource lands.
1537.05	Forestville/Rio Nido	3,936	5.90	The Forestville EJ Community is east of Guerneville along River Road and near Highway 116. The Community includes the town of Forestville north of Front Street, as well as the Mirabel Heights and Rio Dell neighborhoods, the Forestville School Academy and Laguna High School. The Community is home to popular parks such as Steelhead Beach Regional Park and the Forestville Youth Park. The commercial core of Forestville along Front Street has local serving retail and restaurants.
1537.06	Russian River Valley	4,440	6.30	The Russian River Valley EJ Community is situated between Forestville and Guerneville, south of the Russian River and north of Green Valley Road, and includes the Summerhome Park neighborhood and other nearby rural residential subdivisions. South of the River are agricultural and resource lands with a few pockets of limited commercial properties, and rural residential neighborhoods near Forestville and Ross.
1537.03	Monte Rio**	3,506	4.91	The Monte Rio EJ Community is located along the Russian River in West Sonoma County, and includes the Villa Grande, Guerneville, and Monte Rio neighborhoods. The Community borders are south of Cazadero and north of Camp Meeker, bordered roughly to the west by Cazadero Highway and to the east by Green Valley Road and Old Cazadero Road. The Community has many visitor serving opportunities including the Northwood Golf Club, Vacation Beach, and other beaches and outdoor recreation opportunities along the Russian River. Land uses in Monte Rio consist of small rural residential subdivisions off State Highway 116 and off Moscow and River Roads across the river; recreation and visitor-serving and local commercial development interspersed with rural residential parcels along both sides of State Highway 116 in the center of town, and across the river along Main Street; and natural resource land or timberland beyond the subdivisions. The larger commercial area along State Highway 116 consists of a small resort with cabins, convenience store/deli, small market, restaurant, small movie theatre, community hall/theatre, and church. The smaller commercial area along Main Street consists of a small market and bar.
<b>Central</b>				
1525.01	Middle Rincon South*	4,352	6.06	The Middle Rincon South EJ Community is comprised of several unincorporated islands north and south of Highway 12 within northeast Santa Rosa. The community is near Howarth Park, Spring Lake Regional Park, and several neighborhood parks. Nearby schools include Douglas Whited Elementary, Binkley Elementary, Maria Carrillo High School, and Rincon Valley Middle School. All properties within this community have rural residential land use designations.
1522.02	Brush Creek*	6,510	5.94	The Brush Creek EJ Community consists of several unincorporated islands within northeast Santa Rosa, near Montecito Boulevard. This community is close to grocery stores and restaurants, and Rincon Valley Regional Library, and nearby schools include Brush Creek Montessori School, Rincon Valley Middle School, Maria Carrillo High School and Madrone Elementary School. All properties within this community have rural residential land use designations.
1514.01	Kawana Springs	8,050	4.45	The Kawana Springs EJ Community is north of Rohnert Park, bordered by Warrington Road to the south, Petaluma Hill Road to the west, Kawana Terrace to the north, and extending into Taylor Mountain Regional Park to the east. The community largely comprises land extensive agriculture and diverse agriculture land use designations, with a small limited industrial area along the northern section of Petaluma Hill Road.
1530.06	Olivet Road	8,199	5.25	The Olivet Road EJ Community is a pair of rural residential unincorporated islands in west Santa Rosa off of Guerneville Road. The community is nearby neighborhood serving retail including grocery stores and several restaurants.
1514.02	Taylor Mountain	9,853	4.20	The Taylor Mountain EJ Community is in the unincorporated area of southwest Santa Rosa, bordered by Mountain View Avenue to the south, Highway 101 to the west, and Petaluma Hill Road to the east. The community includes the southern segment of Santa Rosa Avenue and the Bellevue neighborhood. There is a mix of land use designations along Santa Rosa Avenue, including medium and high density residential, industrial, and commercial. The western side of this community is designated for diverse agriculture. There is some access to stores and restaurants, and the community is home to Taylor Mountain School. This community is subject to the South Santa Rosa Area Plan.
1533	Wright**	12,385	4.68	The Wright EJ Community includes the unincorporated area west of Roseland, south of Highway 12, east of the Laguna de Santa Rosa and the City of Sebastopol, and west of Stony Point Road. Llano Road, Todd Road, and South Wright Road run through the Community. Wright Charter School, the Laguna de Santa Rosa Trail and Wetlands Preserve, and retail and restaurant options in Sebastopol are nearby. The Community's core in agricultural land with low density residential and rural and agricultural residential neighborhoods near Highway 12 and along Stony Point Road.
1532	Bellevue**	8,327	4.16	The Bellevue EJ Community borders the City of Santa Rosa to the north and roughly comprises the area south of Bellevue Avenue, west of Highway 101, north of Wilfred Avenue, and east of Stony Point Road, and includes the Moorland neighborhood and Andy Lopez Unity Park. Nearby schools include Elsie Allen High School and Bellevue Elementary School. A majority of the Community is designated for rural residential land uses, with heavy and limited rural industrial uses concentrated along Standish Avenue, Todd Road, West Robles Avenue, and South Moorland Avenue. There are also a residential neighborhood with low to high densities along Highway 101 and Moorland Avenue. The Sonoma Marin Area Rail Transit (SMART) system travels north and south through the Community. There are few neighborhood serving retail opportunities within the Community.
1530.02	West End*	6,864	4.22	The West End EJ Community is an unincorporated island in west Santa Rosa off of West College Avenue in the Clover Drive neighborhood. This community is nearby Finley Community Park, Abraham Lincoln Elementary School, and various retail stores and restaurants. This community receives sewer and water service from the City of Santa Rosa.

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Census Tract Number	Name	Population	Portrait of Sonoma County Human Development Index (HDI) Score	Description
1527.02	Shiloh South	5,342	5.44	The majority of the Shiloh South EJ Community is west of Highway 101 between the City of Santa Rosa and the Town of Windsor, bordered to the north and south by Shiloh and River Roads respectively. Significant roadways in this community include Airport Boulevard, North Laughlin Road, Shiloh Road, and Old Redwood Highway. This community comprises the Sonoma County Airport, the airport SMART station, the Sutter Santa Rosa Regional Hospital, the proposed boundaries of the draft Airport Industrial Area Specific Plan update, and the southern end of the Mark West neighborhood, east of Highway 101. The core of this community is designated for industrial land uses surrounded by agricultural lands, with. There are few schools and stores nearby.
<b>Southern</b>				
1509.01	McKinley	5,053	5.67	This EJ Community is an approximately 70-acre portion of a census tract that is largely within Petaluma city limits. The community includes the properties just north and south of the Petaluma Village Premium Outlets, situated between Petaluma Boulevard and Highway 101, with parcels that have diverse agriculture and general commercial land use designations. High levels of pollution burden qualified this census tract as an EJ Community.
1512.04	Downtown Cotati	2,987	N/A	This EJ Community includes a cluster of unincorporated rural residential properties south of Downtown Cotati and the southern Cotati city limits. It is bordered by Old Redwood Highway North to the west, East Railroad Avenue to the south, and the SMART railroad tracks to the east. Zoning in this community is Agricultural and Residential. The Downtown Cotati area is home to a variety of businesses, including restaurants, shops, and art galleries. Nearby schools and parks include Rainbow Bridge Montessori, Mixed Greens Preschool, Helen Putnam Park, and Lady Bug Park.
1512.01	West Cotati/Pengrove	7,069	5.23	The West Cotati/Pengrove EJ Community wraps around the east side of Rohnert Park and Cotati along Stony Point Road, stretches west through Pengrove, and south to Petaluma city limits. Stony Point Road, Petaluma Hill Road, Old Redwood Highway North, the SMART railroad, and Highways 116 and 101 run through this community. This community includes most of Pengrove's commercial core along Main Street, Pengrove Elementary School, Bright Skies Montessori, and Graton Resort and Casino. Land uses include rural residential and agricultural designations near Rohnert Park and Cotati, and a mix of low density residential, commercial, industrial, and public facilities designations in Pengrove.
1503.05	Fetters Springs/ Agua Caliente West**	6,183	4.44	The Fetters Springs/Agua Caliente West community is bordered to the east by Sonoma Creek, to the north by Madrone Road, to the west by Highway 12, and to the south by Agua Caliente Creek just north of Verano Avenue. Boyes Boulevard and West Agua Caliente Road cross the community from east to west. There are several wineries and tasting rooms in the area, as well as a number of hiking and biking trails. The area is home to Larson Park, Flowery Elementary, Sonoma Charter School, and a number of businesses along the Highway 12 corridor. This EJ Community intersects with the Springs Specific Plan boundary. While the abutting census tracts to the east and west were not identified as EJ Communities under the County's methodology, it should be noted that those census tracts share similar social and economic characteristics.
1506.12	Petaluma Airport/Arroyo Park	4,676	6.71	This EJ Community abuts the eastern edge of the City of Petaluma and runs north to Lichau Creek near Pengrove and south to the County border at San Pablo Bay. The Petaluma Airport is located at the western edge of this EJ Community, and its major roadways include Adobe Road, Lakeville Highway, Petaluma Boulevard South, Highway 101, and Highway 116. The community is largely composed of land extensive agriculture, diverse agriculture, and public facilities land uses, and is home to Old Adobe Elementary School, the Petaluma Adobe State Historic Park, Tolay Lake Regional Park, and Sears Point.
1502.03	Sonoma City South/ Vineburg	4,561	5.45	The Sonoma City/Vineburg EJ Community borders are Fifth Street East to the east, East Watmaugh Road to the south, Sonoma Creek to the west, and the southern edges of the City of Sonoma to the north. Highway 12 bisects the community from north to south. The community is largely composed of rural residential land use, with a handful of limited commercial and agricultural parcels. There are a few businesses along Highway 12, including a wine shop, Sonoma TrainTown, a plant nursery, as well as a church and private school.

\* Unincorporated island in City of Santa Rosa

\*\* Metropolitan Transportation Commission (MTC) Equity Priority Community

Sources: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates, 2021 Portrait of Sonoma County

**Table 3 EJ Community Demographics and Characteristics**

Region and Census	Race/Ethnicity						Age Demographics			Median Household Income	Educational Attainment			Percent Unemployed (%)
	Hispanic (%)	White (%)	African American (%)	Native American (%)	Asian American (%)	Other/ Multiple (%)	Children < 10 Years (%)	Population 10-64 Years (%)	Elderly >64 Years (%)		Highschool Graduate or Higher (%)	9 <sup>th</sup> to 12 <sup>th</sup> Grade, No Diploma (%)	Less than 9 <sup>th</sup> Grade (%)	
<b>Sonoma County</b>	<b>25</b>	<b>66</b>	<b>1</b>	<b>&lt;1</b>	<b>4</b>	<b>43</b>	<b>11</b>	<b>80</b>	<b>18</b>	<b>81,018</b>	<b>89</b>	<b>5</b>	<b>6</b>	<b>4</b>
<b>Northwestern</b>														
East Cloverdale	48	47	<1	2	2	<1	17	70	13	64,309	74	13	13	4
West Cloverdale	19	71	1	<1	5	3	11	65	24	72,317	91	5	3	2
Jenner/ Cazadero	10	79	0	5	3	4	4	42	54	62,153	94	3	3	6
<b>Central West</b>														
Guerneville	12	84	<1	0	2	3	6	68	26	60,901	94	6	1	3
Forestville/Rio Nido	12	80	<1	<1	3	4	5	71	25	69,081	94	3	3	6
Russian River Valley	8	83	0	2	1	6	7	68	25	64,746	98	2	<1	0
Monte Rio**	7	85	2	<1	2	4	7	70	24	59,761	92	7	1	11
<b>Central</b>														
Middle Rincon South*	20	67	2	<1	8	3	16	73	11	69,933	93	5	2	1
Brush Creek*	24	66	<1	0	5	4	9	67	25	67,887	90	5	6	5
Kawana Springs	42	39	2	2	12	4	14	79	7	71,539	73	10	18	8
Olivet Road	35	54	3	<1	3	5	13	69	18	69,722	86	6	8	3
Taylor Mountain	52	36	3	2	6	1	11	79	9	50,059	75	11	14	6
Wright**	55	32	4	0	6	3	9	78	13	79,528	77	9	14	5
Bellevue**	55	32	4	0	6	3	17	75	8	69,280	75	10	16	6
West End*	51	36	3	<1	4	4	16	76	8	81,911	78	7	15	4
Shiloh South	30	59	1	<1	3	6	13	73	14	85,321	88	2	5	2
<b>Southern</b>														
McKinley	32	57	1	0	3	7	15	73	12	64,772	93	4	3	7
Downtown Cotati	21	72	<1	0	3	3	13	73	15	70,438	89	3	8	4
West Cotati/ Penngrove	26	68	<1	<1	4	2	13	65	22	72,985	88	9	3	4
Fetters Springs/ Agua Caliente West**	64	27	<1	0	<1	9	16	75	9	66,510	69	11	21	1
Petaluma Airport/ Arroyo Park	20	70	0	0	5	4	10	72	18	109,028	95	2	3	4
Sonoma City South/ Vineburg	17	78	<1	0	3	2	5	59	36	71,875	89	7	4	3

\* Unincorporated island in City of Santa Rosa

\*\* Metropolitan Transportation Commission (MTC) Equity Priority Community

Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates

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## 4 Pollution Burden

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### 4.1 Overall Pollution Burden

Pollution burden is an environmental determinant of health that disproportionately impacts Environmental Justice (EJ) Communities in Sonoma County. Currently, marginalized and low-income populations across the United States face a disproportionate burden of pollutant exposure.<sup>19</sup> Numerous studies by the United States Environmental Protection Agency (EPA) have consistently demonstrated the detrimental impact of environmental pollution on historically marginalized populations. Research has shown that these populations face higher levels of pollution, resulting in increased health risks and disparities. The consequences of this unequal exposure to pollution are notable. Marginalized communities suffer from higher rates of respiratory illnesses, cardiovascular diseases, and other health issues linked to pollution.<sup>20</sup>

The CalEPA CalEnviroScreen tool (Version 4.0) measures pollution burden on California communities using a 'Pollution Burden Percentile'. This metric uses a variety of pollution indicators to establish a pollution burden score for each census tract in California.

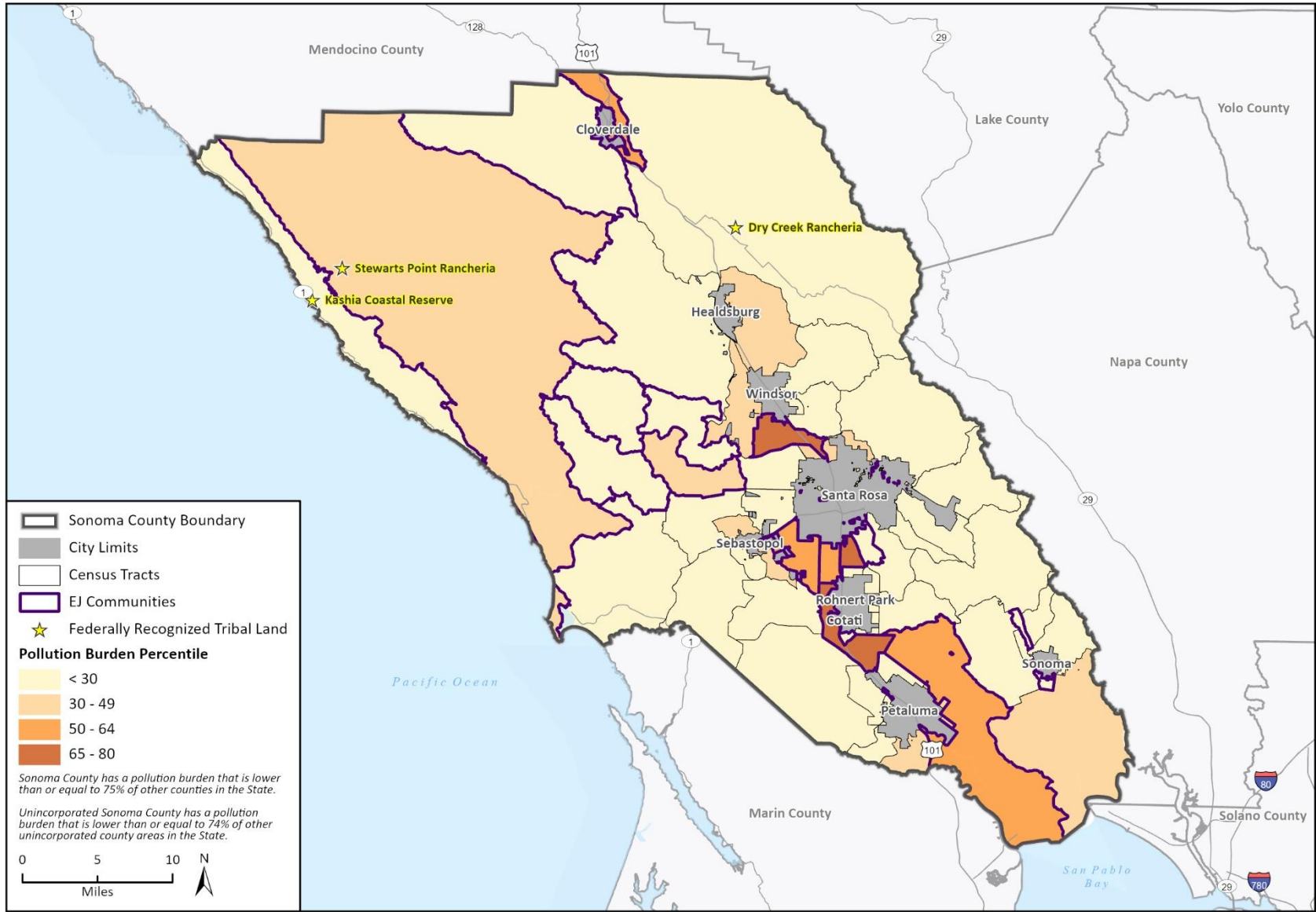
Assigned scores for each census tract are based on the presence and/or burden of each pollution indicator within that area. Scores are expressed using a percentile ranking that compares each census tract score in relation to other census tracts within California. A high percentile indicates that a census tract has a higher pollution burden score relative to other communities across the state. Overall, the state of California scored in the 50<sup>th</sup> percentile for Pollution Burden. Sonoma County has an average Pollution Burden score of 25.1. As shown in Figure 3, the Sonoma County planning area, eight (8) EJ Communities have a Pollution Burden percentile score that exceeds the 50<sup>th</sup> percentile of census tracts across the state, as shown in Table 1. Elevated Pollution Burden scores indicate that Sonoma County EJ Communities have significant exposure to environmental pollution relative to the state average. EJ Communities in Sonoma County with the highest pollution burden are primarily located in the southern portion of the planning area. A detailed assessment of pollution burden based on census tract is included in Section 4.2 of this report.

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<sup>19</sup> Tessum, C. W., Paoletta, D. A., Chambliss, S. E., Apte, J. S., Hill, J. D., & Marshall, J. D. (2021). PM2.5 polluters disproportionately and systemically affect people of color in the United States. *Science Advances*, 7(18).

<sup>20</sup> Bullard, R. D., Johnson, G. S., & Torres, A. O. (2019). *Environmental Justice in the United States: Myths and Realities*.

**Figure 3 Overall Pollution Burden Scores by Census Tract in the Planning Area**



Basemap provided by Esri and its licensors © 2024.  
 Additional data provided by CalEnviroScreen 4.0, 2021; Priority Population Investments 4.0, 2021; Bureau of Indian Affairs, 2023.

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 Fig 3 Sonoma County Pollution Burden

## 4.2 Individual Pollution Indicators

To determine the ‘Pollution Burden’ metric, the CalEnviroScreen tool (Version 4.0) assesses a range of individual pollutant indicators for census tracts across California. These individual pollution indicators include air pollutants, water pollutants, and material pollutants that one can be exposed to in the home. Table 4 outlines the CalEnviroScreen scores for individual pollution indicators in the planning area by region within the County. Below is an overview of CalEnviroScreen Pollution Burden indicators and how they impact the County’s EJ Communities and Sonoma County overall.

**Diesel PM.** Diesel particulate matter (DPM) is emitted by diesel engines and is considered a Toxic Air Contaminant.<sup>21</sup> DPM impacts are characterized by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) effects on human health.<sup>21</sup> The average percentile score for the impacts from DPM on census tracts in California is 50. Sonoma County has an average DPM score of 34.9. CalEnviroScreen scores indicate that the Taylor Mountain EJ Community in the central portion of the County (census tract 6097151402) has significant levels of DPM relative to all other census tracts in California; both score in the 77<sup>th</sup> percentile.

**Pesticides.** Pesticides applied in agricultural areas can drift into neighboring communities and are associated with illness and, in some cases, longer-term health conditions, such as birth defects or cancer.<sup>22</sup> The state of California scored in the 18<sup>th</sup> percentile for overall pesticide use and exposure. CalEnviroScreen indicates a higher presence of pesticides in the County, assigning the entirety of the County a score of 45.5. CalEnviroScreen scores of pesticide use indicate a moderately elevated presence of applied pesticides for all of the EJ Communities in the County planning area. However,

three EJ Communities in the Russian River Valley, Shiloh South, and Sonoma City South/Vineburg census tracts (census tracts 6097153706, 6097152702, and 6097150203) score above the 75<sup>th</sup> percentile for pesticide pollution relative to all other census tracts in California. The Russian River Valley census tract EJ Community located in central County scores the highest in the 78<sup>th</sup> percentile.

**Traffic.** Although California has established strict standards for vehicle emissions, high levels of traffic on major roads and highways still produce high rates of vehicle-related pollution emissions across the State. Automobile exhaust can contain toxic chemicals that are associated with cancer, make it difficult to breathe, and can be associated with low weight and premature births. Children who live or go to schools near busy roads have higher rates of asthma and other lung diseases than children living in areas located farther from roads.<sup>22</sup> The average percentile score for traffic related impacts on California census tracts is the 50<sup>th</sup> percentile. Sonoma County has a lower average traffic impact percentile score of 40.5. CalEnviroScreen scores indicate that EJ Communities in the central and southern regions of the County experience moderate to elevated traffic when compared to EJ Communities in the northwestern and central west portions of the County. The EJ Community located at the McKinley census tract (census tract 6097150901) in the southern portion of the County scores in the 85<sup>th</sup> percentile.

**Children’s Lead Risk from Housing.** High levels of lead exposure can lead to a range of detrimental health outcomes, including anemia, weakness, and kidney and brain damage. Lead poisoning can often result from lead exposure at home due to the use of contaminated

<sup>21</sup> California Air Resource Board. 2022. Ambient Air Quality Standards Designation Tool. Madera County. Available at: <https://ww2.arb.ca.gov/aaqs-designation-tool> (accessed March 2023).

<sup>22</sup> World Health Organization. 2016. Preventing Disease Through Healthy Environments. <https://www.who.int/publications/i/item/9789241565196> (accessed May 2023).

materials such as lead-based paint and lead-contaminated dust in older buildings. Lead exposure can also occur through contaminated air, water, and soil. Census tracts in California score on average in the 50<sup>th</sup> percentile for impacts for lead risk. On average, census tracts within Sonoma County have percentile scores for lead risk from housing that measured at 36.4 percentile relative to all California census tracts. Children's lead risk from housing across EJ Communities in the County vary, with some census tracts in the southern portion of the County scoring as low as the 7<sup>th</sup> percentile. However, one EJ Community located at the East Cloverdale census tract in the northwestern portion of the County (census tract 6097154201) scores in the 85<sup>th</sup> percentile.

**Cleanup Sites.** Cleanup sites are areas that are contaminated with harmful chemicals and require remediation to remove the contaminants. Information from the Department of Toxic Substances Control (DTSC) and US EPA was used to assess exposure to cleanup sites. People living near cleanup sites may be more exposed to chemicals from the sites than those living farther away. Census tracts in California score on average in the 33.7 percentile for impacts from cleanup sites. The average Sonoma County census tract scores lower, averaging in the 17<sup>th</sup> percentile. Impacts from cleanup sites vary greatly across the County EJ Communities, with some census tracts scoring below the 10<sup>th</sup> percentile and others scoring above the 80<sup>th</sup> percentile. Three of the four highest scoring EJ Communities for this indicator are located in the northwestern portion of the County. However, the highest scoring EJ Community is in the central portion of the County, in the Shiloh South census tract (census tract 6097152702) and has a 97<sup>th</sup> percentile score.

**Groundwater Threats (from leaking underground storage tanks).** Hazardous chemicals are commonly stored in containers, which are housed on land or in underground storage tanks. Leaks from underground storage tanks can contaminate soil and groundwater. People who live near contaminated groundwater may be exposed

to chemicals moving from the soil into the air inside their homes. Common groundwater pollutants include gasoline and diesel fuels at gas stations, as well as solvents, heavy metals and pesticides. Leaking tanks can affect drinking water and expose people to contaminated soil and air. The average CalEnviroScreen percentile score for groundwater threats in California was 37.8. On average, census tracts in Sonoma County score higher than the State average, with census tracts averaging in the 61<sup>st</sup> percentile for groundwater threats. Impacts from groundwater threats are relatively high across EJ Communities in Sonoma County, with nearly half of all EJ Community census tracts scoring above the 75<sup>th</sup> percentile. Of the 13 highest scoring EJ communities, seven are located in the central west portion of the County, with the remaining spread throughout the County.

**Impaired Waters.** Streams, rivers, and lakes are used for recreational purposes and may provide water for drinking or agriculture. When water is contaminated by pollutants, the water bodies are designated as impaired. CalEnviroScreen uses a unique criterion for identifying the impacts of impaired water bodies on the surrounding community. This criterion involves identifying the State Water Resource Control Boards List of Impaired Water Bodies and calculating the number of pollutants listed in streams or rivers that fell within 1 kilometer (km) or 2 km respectively of a census tract's populated blocks. Each California census tract is then scored based on the sum of the number of individual pollutants found within and/or bordering it. The average California census tract scores in the 32<sup>nd</sup> percentile for impaired waters while the average census tract in Sonoma County scores in the 50<sup>th</sup> percentile. In general, impaired water body impact scores in the EJ Communities are higher than the County and state average, with two-thirds of EJ Communities scoring between the 50<sup>th</sup> to 72<sup>nd</sup> percentile. The highest scoring EJ Community is in the Petaluma Airport/Arroyo Park census tract (census tract 6097150612) which has a 97<sup>th</sup> percentile score. County census tracts located in the southern

portion of the County have higher levels of impact from impaired water bodies than census tracts located elsewhere in the County.

**Hazardous Waste.** Waste created by commercial or industrial activity can contain chemicals that may be dangerous or harmful to health. Only certain regulated facilities are allowed to treat, store, or dispose of this type of waste and are distinct from cleanup sites which correspond to contaminated sites. Hazardous waste includes a range of different types of regulated waste, including household compounds, such as automotive products, and waste materials produced by factories and businesses. CalEnviroScreen measures hazardous waste impact scores based on a census tract's proximity to specific Large Quantity Hazardous Waste Generators.<sup>23</sup> Permitted hazardous waste facilities were selected from the Department of Toxic Control (DTSC) database.<sup>24</sup> Hazardous waste generators were identified from the DTSC Hazardous Waste Tracking System for 2018 to 2020; only large quantity generators were included in the identification.

The average percentile score for hazardous waste impacts on California census tracts was the 48<sup>th</sup> percentile. Sonoma County census tracts score lower than the state average with an average percentile score of 39.1. There is a large disparity in the percentile scores across Sonoma County EJ Communities, with scores ranging from below the 10<sup>th</sup> percentile to above the 90<sup>th</sup> percentile. Local impacts from hazardous waste tend to be focused on the EJ Communities located in the central and central west geographic areas of the County. This is likely due to the extensive amount of hazardous waste generators located in industrial areas along the U.S. 101.

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<sup>23</sup> Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste (Source: U.S. EPA, 2023).

**Solid Waste Sites.** Solid waste facilities are places where household garbage and other types of waste are collected, processed, or stored. Landfills, transfer stations, and composting facilities are considered solid waste sites. These facilities can release air pollutants and impact water quality if the compounds present in waste leach into soil. CalEnviroScreen measures impacts from solid waste sites by scoring solid waste facilities based on the type of facility, violations received, and how much waste it handles.

The average solid waste percentile score for California census tracts is 28.1. Sonoma County census tract score higher than the state average, with an average County score within the 43<sup>rd</sup> percentile for solid waste sites. CalEnviroScreen scores for County census tracts show that there are large disparities in the impacts that solid waste sites have across Sonoma County, depending on the community. Almost half of all EJ Communities have significantly higher solid waste percentile scores than all other California census tracts, scoring at or above the 75<sup>th</sup> percentile. Census tracts with the highest percentile scores are spread throughout the County.

**Ozone, PM<sub>2.5</sub>, Toxic Release, Drinking Water.** As shown in Table 4, all EJ Communities across the planning area have relatively low percentiles for ozone and PM<sub>2.5</sub>. Similarly, percentile scores for toxic release impacts are relatively low. However, three census tracts score notably higher than the remainder of the planning area (30<sup>th</sup> percentile or higher) for toxic release. These three census tracts are all EJ Communities in the southern portion of the County. In addition, drinking water percentiles are moderate throughout the County with no EJ Community scoring above the 68<sup>th</sup> percentile.

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<sup>24</sup> The DTSC maintains a record of known and potential hazardous substance release sites under its jurisdiction within the EnviroStor database.

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**Table 4 Pollution Indicator Percentile Scores for Environmental Justice Communities**

Census Tract	Indicators and Percentile Scores													
	Pollution Burden	Ozone	P.M2.5	Diesel PM	Pesticide	Toxic Release	Traffic	Drinking Water	Lead	Cleanup Sites	Groundwater Threats	Hazardous Waste	Impaired Water Bodies	Solid Waste
Sonoma County	25	10	9	35	46	9	41	30	36	17	61	39	50	43
<b>Northwestern</b>														
East Cloverdale	50	17	5	25	70	<1	8	25	85	86	86	36	59	80
West Cloverdale	18	17	3	2	50	<1	4	24	24	86	61	17	67	68
Jenner/ Cazadero	34	12	2	<1	45	<1	1	68	51	82	70	17	72	90
<b>Central West</b>														
Guerneville	10	12	2	2	58	1	9	9	70	0	35	4	59	87
Forestville/Rio Nido	27	12	3	5	73	1	22	49	39	0	76	39	72	72
Russian River Valley	32	12	3	15	77	1	11	68	41	0	68	17	77	95
Monte Rio**	15	12	3	2	55	0	5	41	12	0	52	17	59	83
<b>Central</b>														
Middle Rincon South*	8	11	9	61	2	1	52	5	36	0	81	17	51	3
Brush Creek*	8	11	9	66	0	1	49	5	32	0	81	19	51	3
Kawana Springs	23	8	8	34	53	3	41	38	46	4	82	54	51	12
Olivet Road	19	8	8	18	60	2	39	5	28	6	70	46	51	76
Taylor Mountain	78	8	9	77	52	4	85	64	36	64	97	76	51	87
Wright**	51	6	7	17	60	2	34	18	51	62	96	86	67	90
Bellevue**	58	6	8	31	26	5	73	69	47	46	89	76	44	98
West End*	47	11	9	66	0	2	77	5	62	38	98	58	44	91
Shiloh South	67	11	7	50	78	1	77	23	33	97	60	93	33	98
<b>Southern</b>														
McKinley	64	11	13	68	26	23	85	18	74	58	88	63	51	59
Downtown Cotati	27	6	10	69	43	6	70	24	24	0	41	17	77	64
West Cotati/Penngrove	65	8	9	29	55	13	60	50	38	64	83	80	77	89
Fetters Springs/Agua Caliente West**	17	14	12	37	62	40	32	19	72	0	60	4	24	0
Petaluma Airport/ Arroyo Park	63	12	12	11	68	32	64	37	7	43	93	78	97	98
Sonoma City South/ Vineburg	10	14	16	39	76	45	9	36	7	0	32	27	24	0

\* Unincorporated island in City of Santa Rosa

\*\* Metropolitan Transportation Commission (MTC) Equity Priority Community

Source: CalEnviroScreen 4.0, 2023.

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## 4.3 County Initiatives to Support Reduced Exposure to Pollution

- **Pesticide Use Enforcement Program.** While State law preempts local regulation of pesticides, the Sonoma County Department of Agriculture, Weights & Measures implements the Pesticide Use Enforcement Program. The function of this program is to oversee, monitor and evaluate the use, records, storage and sales of pesticides as required in the California Food and Agricultural Code, the California Code of Regulations and the Business and Professions Code. In carrying out these functions, the department protects food, feed and fiber sources, the environment and people, including the public and agricultural workers.
- **Sonoma County General Plan.** The Public Safety, Water Resources, and Land Use Elements of the County's General Plan contain policies aimed to prevent and limit air and water pollution, and exposure to hazardous materials.

### Key Takeaways

- Pollution exposure for EJ communities in Sonoma County is predominately associated with cleanup sites, groundwater threats, hazardous waste, impaired water bodies, and solid waste.
  - Cleanup sites: While percentile scores associated with cleanup sites are generally low across the EJ Communities, the Shiloh South EJ Community (census tract 6097152702) scored well above others in the 97<sup>th</sup> percentile.
  - Hazardous Waste: There is a large disparity in the percentile scores across Sonoma County EJ Communities, with scores ranging from below the 10<sup>th</sup> percentile to above the 90<sup>th</sup> percentile. EJ communities located in the central and

central west geographic areas of the County face the greatest level of impacts.

- Groundwater Threats: EJ communities in Sonoma County have relatively high impacts from groundwater threats, with nearly half of all EJ community census tracts scoring above the 75th percentile.
  - Impaired Waters: EJ communities in Sonoma County have relatively moderate impacts from impaired water bodies, with two-thirds of EJ communities scoring between the 50th and 72nd percentile. The Petaluma Airport/Arroyo Park census tract has the highest score.
  - Solid Waste Sites: There are large disparities in the impacts of solid waste sites across Sonoma County EJ communities, with almost half of all EJ communities having significantly higher solid waste percentile scores compared to other census tracts.
- Certain EJ communities are also experiencing high pollution exposure to Diesel PM, Pesticides, Traffic, and Children's Lead Risk from Housing.
    - Diesel PM: The Taylor Mountain EJ Community have significant levels of Diesel Particulate Matter (DPM) relative to other census tracts in California.
    - Pesticides: EJ communities in the Russian River Valley, Shiloh South, and Sonoma City South/Vineburg have moderately elevated levels of pesticides compared to other census tracts in California.
    - Traffic: EJ communities in the central and southern regions of Sonoma County experience moderate to elevated traffic pollution compared to EJ communities in other parts of the County.
    - Children's Lead Risk from Housing: Lead exposure from housing varies across EJ communities, with some census

tracts in the southern portion of the County scoring low and the East Cloverdale census tract scoring notably high.

- Cleanup Sites: While percentile scores are generally low across EJ Community for cleanup sites, the Shiloh South EJ Community scores within the 97<sup>th</sup> percentile.

## 5 Access to Public Facilities, Services, and Community Amenities

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Access to public facilities and resources is an environmental determinant of health that is required to be addressed by jurisdictions under California Gov. Code Section 65302(h)(1)(A). In the Government Code, “public facilities” include, but are not limited to, public improvements, services, and community amenities.<sup>25</sup> These facilities may include government buildings, schools, public transit, public open space, streets, and roads with safe and adequate infrastructure, as well as community and cultural centers. Low-income and minority communities have historically had fewer public investments in their neighborhood and less access to critical public resources.<sup>26</sup> Refer to Section 6, *Health and Physical Activity*, for additional information on the health impacts associated with the availability of green space and the built environment.

Adequate access to open and green spaces, and safe active transportation infrastructure is essential to enabling physical activity. Lack of physical activity is associated with increased levels of chronic disease, including heart disease, diabetes, and obesity.<sup>27</sup> Communities with adequate access to these community facilities and services are therefore more likely to have better health outcomes. Low-income communities and minority communities tend to have decreased access to those key contributors to physical activity, and thus may be disproportionately impacted by the negative results of physical inactivity.<sup>28</sup> The environmental context

within a community can serve to promote or discourage levels of physical activity for residents.

The following discussion provides an overview of a range of public facilities available in Sonoma County, and evaluates community accessibility to these facilities, including:

- Schools
- Government Buildings
- Parks and Open Space
- Bike Lanes
- Sidewalks
- Public Transit

### 5.1 Parks and Open Space

The availability of greenspace (parks, fields, open space) in proximity to housing can create opportunities for physical activity and social interaction.<sup>22</sup> Both physical activity and social interaction have been linked to improved health outcomes. The cities and towns of Sonoma County have primary responsibility for providing

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<sup>25</sup> Government Code Section 65302(h)(1)(A)

<sup>26</sup> Office of Environmental Health Hazards Assessment (OEHHA). 2021. Indicators of Climate Change in California: Environmental Justice Impacts. <https://oehha.ca.gov/media/downloads/climate-change/document/climatechangeej123110.pdf>

<sup>27</sup> Center for Disease Control and Prevention (CDC). 2022. Lack of Physical Activity Factsheet. <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/physical-activity.htm> (accessed March 2023).

<sup>28</sup> California Environmental Protection Agency. 2022. CalEnviroScreen 4.0. <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40> (accessed June 2023).

parks and recreation services to their residents<sup>29</sup>. Each of the nine incorporated cities owns and manages parkland, and offers recreation programs. Sonoma County Regional Parks (SCRCP) provides recreation opportunities on 15,506 acres across 58 parks, trails, and marinas.<sup>30</sup> Regional Parks' mission is to preserve irreplaceable natural and cultural resources and offer opportunities for recreation and education that enhance the quality of life and well-being of Sonoma County's residents and visitors. Regional Parks is also responsible for developing parks and trail facilities in unincorporated urban service areas until the area is either annexed, or another service providing entity is established.<sup>31</sup>

The County's regional parks allow for a range of activities including camping, fishing, and hiking. The following is a list of County-run regional parks available to the residents of Sonoma County:

- Crane Creek Regional Park
- Doran Regional Park
- Foothill Regional Park
- Gualala Point Regional Park
- Helen Putnam Regional Park
- Hood Mountain Regional Park and Preserve
- Maddux Ranch Regional Park
- Maxwell Farms Regional Park
- North Sonoma Mountain Regional Park and Preserve
- Ragle Ranch Regional Park
- Riverfront Regional Park
- Shiloh Ranch Regional Park

- Sonoma Valley Regional Park
- Spring Lake Regional Park
- Steelhead Beach Regional Park
- Stillwater Cove Regional Park
- Taylor Mountain Regional Park and Preserve
- Tolay Lake Regional Park
- Westside Regional Park

Community parks also include facilities such as sports fields or courts, skateparks, dog parks, picnic areas, nature areas, parking, and restrooms for users. The following is a list of County-run community parks available to residents in Sonoma County:

- Andy's Unity Park
- Bird Walk Coastal Access
- Cloverdale River Park
- Ernie Smith Community Park
- Guerneville River Park
- Kenwood Plaza Park
- Larson Park
- Moran Goodman Park
- Running Fence – Watson School Historic Park
- Shaw Park

The California Department of Parks and Recreation (CDPP) measures park access and park proximity. According to the CDPP, 26 percent of residents of Sonoma County live farther than a half mile

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<sup>29</sup> Sonoma, County of. 2015. Draft Integrated Parks Plan. <https://sonomaCounty.ca.gov/a/107609> (accessed March 2023).

<sup>30</sup> Sonoma, County of. 2021a. Parks for All Annual Report 2020-2021. [https://parks.sonomaCounty.ca.gov/Microsites/Regional%20Parks/Documents/Learn/Funding/MeasureM-ParksForAll\\_AR-2019-2020.pdf](https://parks.sonomaCounty.ca.gov/Microsites/Regional%20Parks/Documents/Learn/Funding/MeasureM-ParksForAll_AR-2019-2020.pdf) (accessed March 2023).

<sup>31</sup> Sonoma, County of. 2015. Draft Integrated Parks Plan. <https://sonomaCounty.ca.gov/a/107609> (accessed March 2023).

from a park. Those planning area communities within adequate proximity to parks are primarily located adjacent to incorporate cities.

When it comes to park access, the CDPP defines “critically underserved” communities as those communities having a ratio of less than three acres of parkland per 1,000 residents.<sup>32</sup> Three acres per 1,000 residents is a State recognized park standard established by California State Parks to measure park access. According to the California Statewide Parks Program, 36 percent of residents of Sonoma County live in areas with less than 3 acres of parks or open space per 1,000 residents. Figure 4 depicts park access per 1,000 residents by census tract in the planning area irrespective of

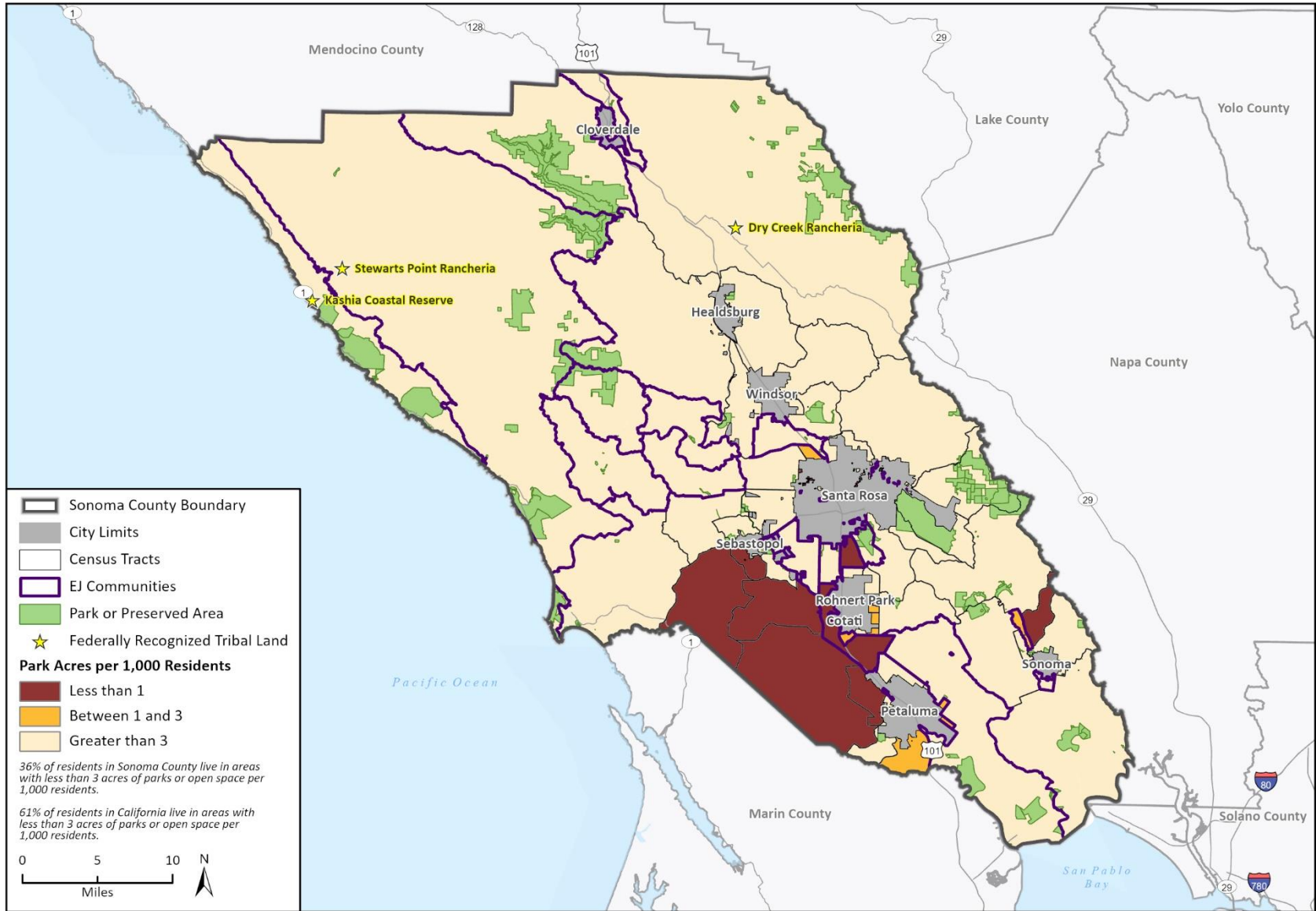
whether a park is a County-run park or a park run by a local municipality.

Most Environmental Justice (EJ) Communities within the planning area have adequate access to park space. However, there are census tracts with low-access to park space located in the southern portion of the County. Of the census tracts experiencing low access to park space, the EJ Communities located at the West Cotati/Penngrove and Taylor Mountain census tracts (census tracts 6097151201 and 6097151402) have less than one acre of park space for each 1,000 residents. The Downtown Cotati and Fetters Spring/Agua Caliente West EJ Communities (census tracts 6097151204 and 6097150305) have one to three acres of park space available for each 1,000 residents.

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<sup>32</sup> Public Resources Code Section 5642

**Figure 4 California Statewide Park “Critically Underserved” Communities in the Planning Area**



Basemap provided by Esri and its licensors © 2024.  
 Additional data provided by CalEnviroScreen 4.0, 2021; Priority Population Investments 4.0, 2021; Bureau of Indian Affairs, 2023; California Department of Parks and Recreation, Park Access Tool, 2020.

22-12991 EPS Sonoma Co EJ Tech Report.aprx  
 Fig 4 Sonoma County Park Access

## 5.2 Schools

Schools are a critical public facility that ensure that communities receive the educational resources necessary for capacity building. In addition, school facilities serve as a space for recreation and socialization that may contribute to improved health outcomes. There are 48 school districts that provide kindergarten through 12<sup>th</sup> grade education in Sonoma County. This includes 31 elementary school districts, six unified school districts, and three high school districts.<sup>33</sup> Within these districts there are a total of 165 public schools, including 53 charter schools.<sup>34</sup> While data was not available on commute times specific to Environmental Justice (EJ) communities due to the scope of this analysis and collected data, most of these schools are located in incorporated cities and are less prevalent as further from cities and into less populated unincorporated areas. Given the geographic layout of schools in the County, commute times for students living within unincorporated areas are likely to be much longer, and schools are likely to be less accessible through active modes of transportation, including walking or biking.

The following is a list of the public schools in the planning area:

- Buena Vista High School
- Dunbar Elementary School
- Forestville Academy
- Forestville Elementary School
- Fort Ross Elementary School
- Geyserville Elementary School

- Geyserville New Tech Academy
- Guerneville Elementary School
- Guerneville Primary School
- Harmony Elementary School
- Horicon Elementary School
- Kashia Elementary School
- Kenwood Elementary School
- Laguna High School
- Monte Rio Union High School
- Montgomery Elementary School
- Penngrove Elementary School

In addition to ensuring that schools are accessible to youth in EJ Communities, it is also important that students are able to maintain their attendance and learning. In response to requests from educators, policy makers, and stakeholders across the state, the California Department of Education (CDE) has developed a Stability Rate measure to identify the number and percent of students who receive a “full year” of learning in the same school.<sup>35</sup> A “full year” represents a typical California public school academic year (July 1 – June 30). However, there is no standard or commonly accepted definition for a “full year” of learning in one school.<sup>35</sup> The Stability Report is intended to be a tool to help educators, parents, and other stakeholders across the state to better understand the needs of

<sup>33</sup> Sonoma County Office of Education (SCOE). 2023. District Map. [https://www.scoe.org/files/district\\_map.pdf](https://www.scoe.org/files/district_map.pdf) (accessed March 2023).

<sup>34</sup> Sonoma County Office of Education (SCOE). 2021. Education Facts for Sonoma County Schools. [https://www.scoe.org/blog\\_files/Ed%20Facts%202020-21%20draft.pdf](https://www.scoe.org/blog_files/Ed%20Facts%202020-21%20draft.pdf) (accessed March 2023).

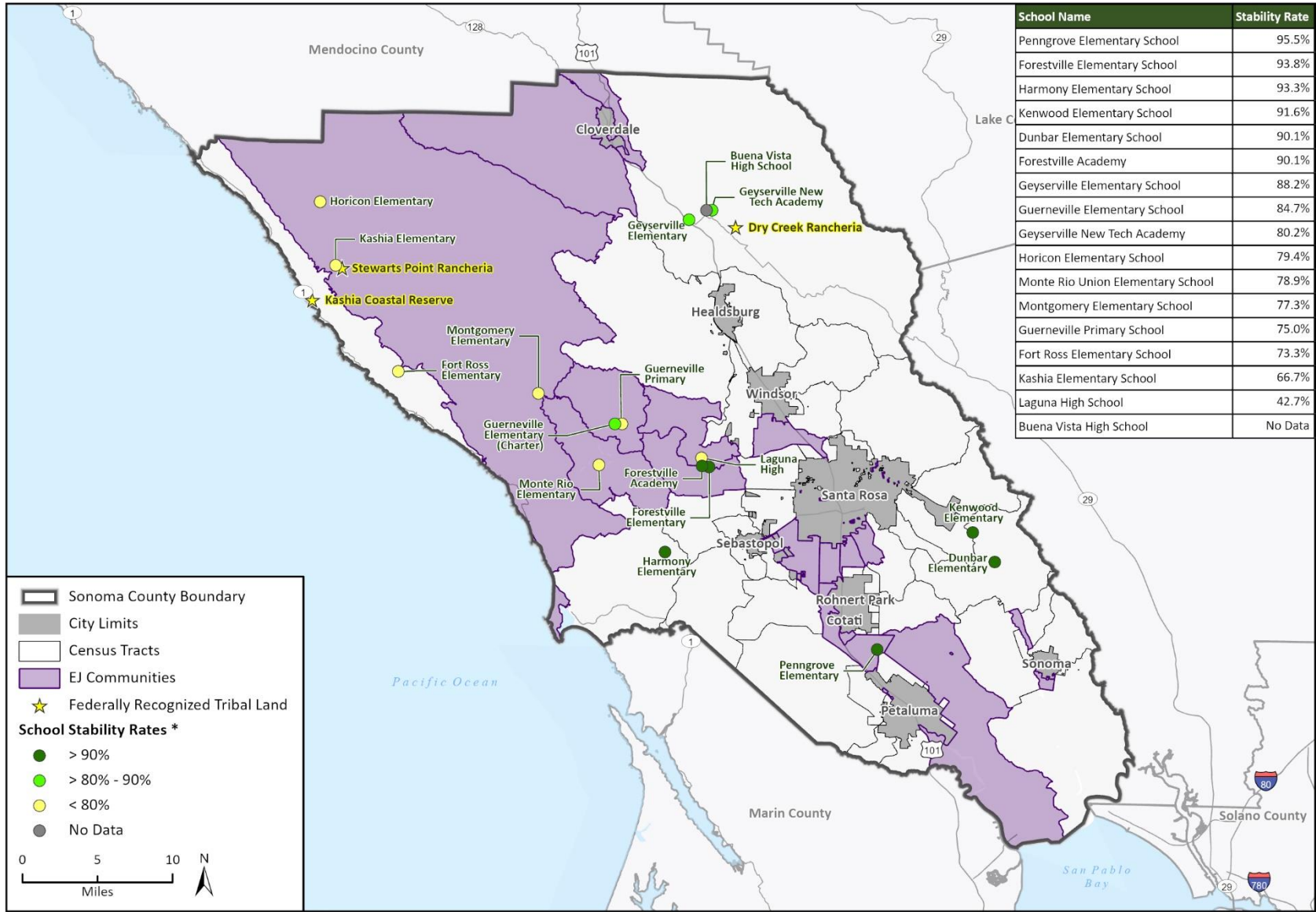
<sup>35</sup> California Department of Education (CDE). 2023. School Stability Rates. <https://www.cde.ca.gov/ds/ad/srinfo.asp> (accessed March 2023).

students and schools. The stability rates for schools and school districts in the planning area are shown Figure 5, below.

From 2020 to 2021, Sonoma County has a 90.9 percent stability rate, meaning 90.9 percent of students completed a “full year” of learning in the same school. This is slightly higher than the State average of 89.7 percent. Out of all schools and districts located in the unincorporated County, Laguna High School in the West Sonoma County School District has the lowest stability rate of 42.7 percent. More than half of all students enrolled in 2021 did not complete a “full year” of learning at Laguna High School. Laguna High School is located in the Forestville/Rio Nido EJ Community (census tract 609713705). Kashia School District and Kashia Elementary School has the second lowest stability rate of 66.7 percent. This means that a third of all students enrolled at the beginning of an academic school year did not complete a “full year” of learning. Kashia Elementary School is located within the Jenner/Cazadero EJ Community (census tract 6097154304) in the northwestern portion of the County near Stewarts Point Rancheria.



Figure 5 School Stability Rates in the Planning Area



Basemap provided by Esri and its licensors © 2024. Additional data provided by Sonoma County, 2023; CDE, 2023; CalEnviroScreen 4.0, 2021; Priority Population Investments 4.0, 2021; Bureau of Indian Affairs, 2023. 22-12991 EPS Sonoma Co EJ Tech Report.aprx Fig 10 Sonoma County School Stability Rates

## 5.3 Bike Lanes

Biking is a relatively low-cost mode of transportation that allows for greater access to necessary resources for those who cannot operate or do not have access to automobiles. The development of bicycle infrastructure such as bike lanes can increase food access, increase opportunity for exercise (i.e., improve access to parks and open space), and improve connectivity to regional transit.<sup>36</sup> Safety is the most frequently cited barrier to bicycling. The Sonoma County Vision Zero Action Plan reported that rural areas, equity priority communities (census tracts that have likely been disadvantaged and faced historic underinvestment), and areas of concentrated poverty are disproportionately affected by traffic safety concerns. These areas represent a lower percentage of the County's roadway mileage but a higher percentage of the County's fatal and injury crashes. Equity priority communities also has a disproportionately high number of the County's high injury intersections, defined as intersections with an elevated risk of crashes resulting in an injury or fatality.<sup>37</sup>

According to the U.S. Census Bureau, only three percent of commuters in the planning area commute by walking, while an additional two percent commute via bike, taxi, or other resources.<sup>38</sup> Low rates of commute via active transportation in the planning area may be an indicator of inadequate infrastructure, including sidewalks and bikeways. However, development of active

transportation infrastructure is notably challenging in rural areas and areas with a widespread geography, such as Sonoma County.

There are three primary types of bike lanes in Sonoma County: Class I, Class II, and Class III. Class I provide a separated right-of-way for the exclusive use of bicycles and pedestrians with minimal crossings of motorized traffic, Class II provide a striped lane for one-way bike travel on a street or highway, and Class III provide shared use with pedestrians or vehicles. Sonoma County has 91 miles of Class I bike lanes, 167 miles of Class II bike lanes, and 61 miles of Class III bike lanes.<sup>39</sup> It should be noted that this is the total mileage of bike lanes throughout the entirety of the County, including incorporated areas.

The commute analysis presented in the Sonoma County Transportation Authority's (SCTA) Countywide Bicycle and Pedestrian Master Plan (2014) indicates that one percent of unincorporated County residents biked to work. Based on the findings of the SCTA Countywide Bicycle Master Plan, there is no indication that bicycling is a reliable source of commuting in the planning area. Additionally, the setting of unincorporated Sonoma County indicates that the planning area may not be adequately served by much of the existing bicycle infrastructure. However, the SCTA Countywide Bicycle and Pedestrian Master Plan also indicated that 289 bicycle and pedestrian projects have been proposed for the

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<sup>36</sup> Castillo EC, Campos-Bowers M, Ory MG. 2019. Expanding Bicycle Infrastructure to Promote Physical Activity in Hidalgo County, Texas. *Prev Chronic Dis* 2019;16:190125. DOI: <http://dx.doi.org/10.5888/pcd16.190125>external icon (accessed March 2023).

<sup>37</sup> County of Sonoma, Sonoma County Department of Health Services, and Sonoma County Transportation Authority. 2022. Sonoma County Vision Zero Action Plan. [https://scta.ca.gov/wp-content/uploads/2022/03/Sonoma-Vision-Zero-Action-Plan\\_Final-1.pdf](https://scta.ca.gov/wp-content/uploads/2022/03/Sonoma-Vision-Zero-Action-Plan_Final-1.pdf)

<sup>38</sup> U.S. Census Bureau. 2019. S0801 Commuting Characteristics by Sex. [https://data.census.gov/table?q=Commuting&g=050XX00US06097\\_1400000US06097150203](https://data.census.gov/table?q=Commuting&g=050XX00US06097_1400000US06097150203),

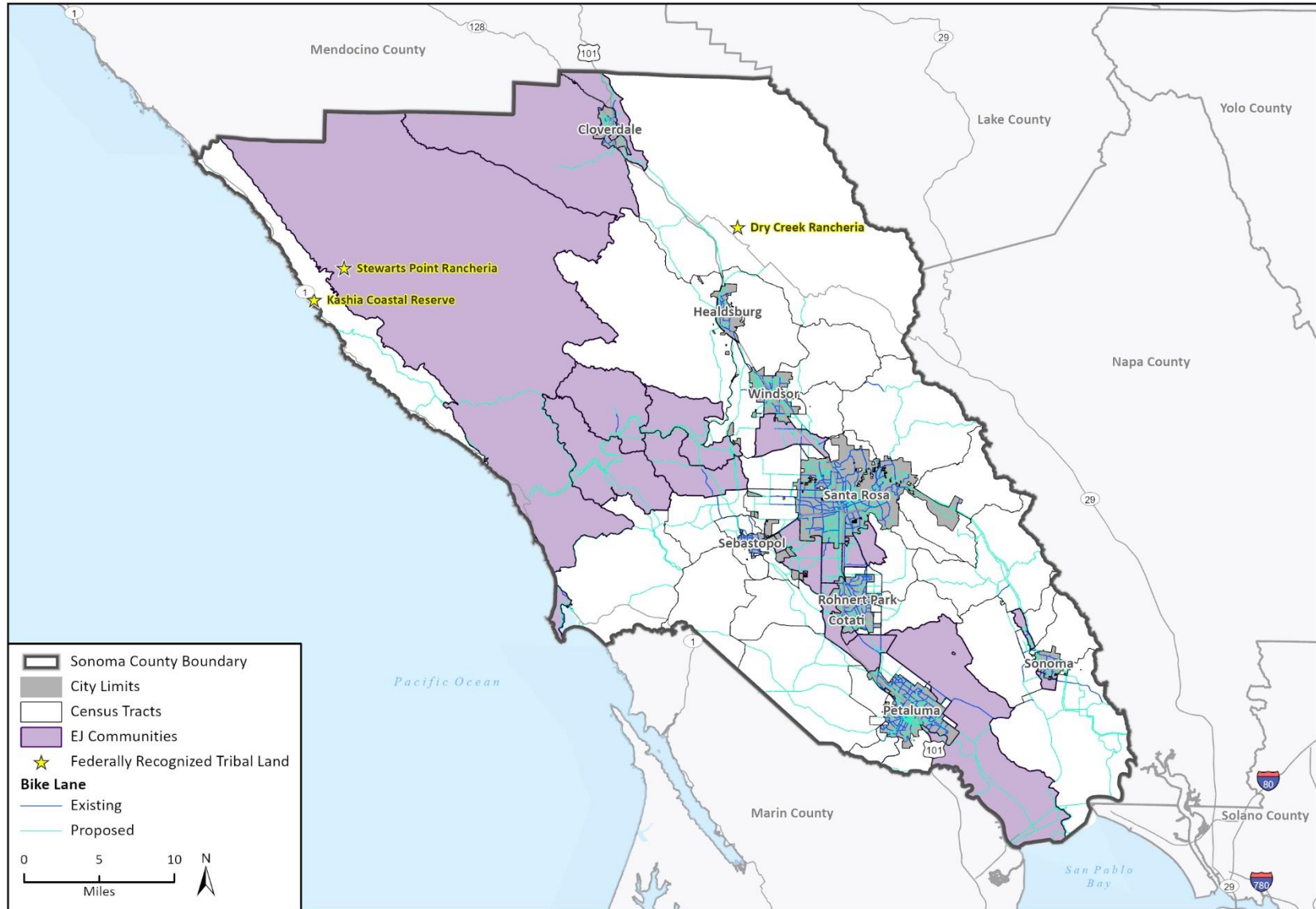
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<sup>39</sup> Sonoma County Transportation Authority (SCTA). 2014. SCTA Countywide Bicycle and Pedestrian Master Plan. [https://scta.ca.gov/wp-content/uploads/2016/07/BikePedPlanUpdate2014\\_final.pdf](https://scta.ca.gov/wp-content/uploads/2016/07/BikePedPlanUpdate2014_final.pdf) (accessed March 2023).

unincorporated County including a total of 193.70 miles of Class I lanes, 388.96 of Class II lanes, and 187.47 miles of Class III lanes.<sup>39</sup>

Figure 6 identifies the existing and planned bicycle lanes in Sonoma County.

Figure 6 Bicycle Lanes in the Planning Area



Basemap provided by Esri and its licensors © 2024.  
Additional data provided by Sonoma County Transportation Authority Countywide Bicycle Plan, 2017; CalEnviroScreen 4.0, 2021; Bureau of Indian Affairs, 2023.

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Fig.12 Sonoma County Bike Access

## 5.4 Sidewalks

Sidewalks provide an essential platform for transportation for those who cannot or choose not to utilize an automobile. Similar to bicycle infrastructure, sidewalk accessibility can promote physical activity and therefore contribute to better health outcomes within a community. Ideally, sidewalks provide safe space for pedestrians, help interconnect mass transit services, and act as public spaces for food, commerce, and leisure. Regardless of mobility needs, poorly maintained sidewalks create safety hazards, impact physical movement, and reduce overall quality of life.

The 2010 Sonoma County Bicycle and Pedestrian Plan indicates that automobile-oriented road design, poor pedestrian connectivity, and lack of adequate sidewalks in the unincorporated County create a relatively unfriendly environment for pedestrians. In older towns and incorporated cities throughout the County, sidewalks have been maintained. However, systems gaps are often found between the oldest and newest developments in the County. This pattern has also been prevalent in the County's unincorporated areas. There are several major barriers to safe pedestrian travel in Sonoma County including freeways such as Highway 101, and high-speed roadways that prioritize vehicle mobility. Discontinuity of the County's pedestrian system can make travel challenging and unsafe.

In Sonoma County there appears to be no relation between the lack of car ownership and higher walk commute percentages.<sup>39</sup> However, it is likely that in areas where there is a lower rate of car ownership, people choose to take transit rather than walking or biking. Currently, only 7.9 percent of residents walk or bike everywhere they go, 13.6 percent walk or bike from home to school, and 9.4 percent walk or bike from home to other locations.<sup>39</sup> In the unincorporated County, only 2.95 percent of people employed above the age of 16 walk during their commutes.<sup>39</sup>

More robust County-maintained sidewalks are mostly seen in incorporated areas and larger city centers. For example, east of Fulton between Windsor and Santa Rosa, the County maintains a larger area of sidewalks, including curb ramps and crosswalks. However, areas west of Santa Rosa, such as the Wright census tract EJ Community (census tract 609715153300), have very limited County-maintained sidewalks or pedestrian facilities.<sup>39</sup> Similarly, EJ Communities in the northwestern portion of the County where towns are more spread out and rural, such as in the Jenner/Cazadero EJ Community (census tract 6097154304) near Stewarts Point Rancheria, have little to no County-maintained sidewalks or pedestrian facilities.

## 5.5 Public Transit

The availability of public transit can improve resource accessibility and maintain mobility for residents without automobile access.<sup>22</sup> New and expanded public transportation options can improve health and health equity by reducing traffic crashes and air pollution, increasing physical activity, and improving access to medical care, healthy food, necessary services, employment, and social connection. Access to public transportation has been shown to promote physical activity when people walk to and from all transit stops. A robust public transit system can also encourage residents to seek timely medical care which they otherwise may not have access to and connect residents with healthy food options that may not be available in their area. As of 2018, approximately 2.1 percent of Sonoma County residents use public transit and 9.7 percent use carpool or ridesharing programs.<sup>39</sup>

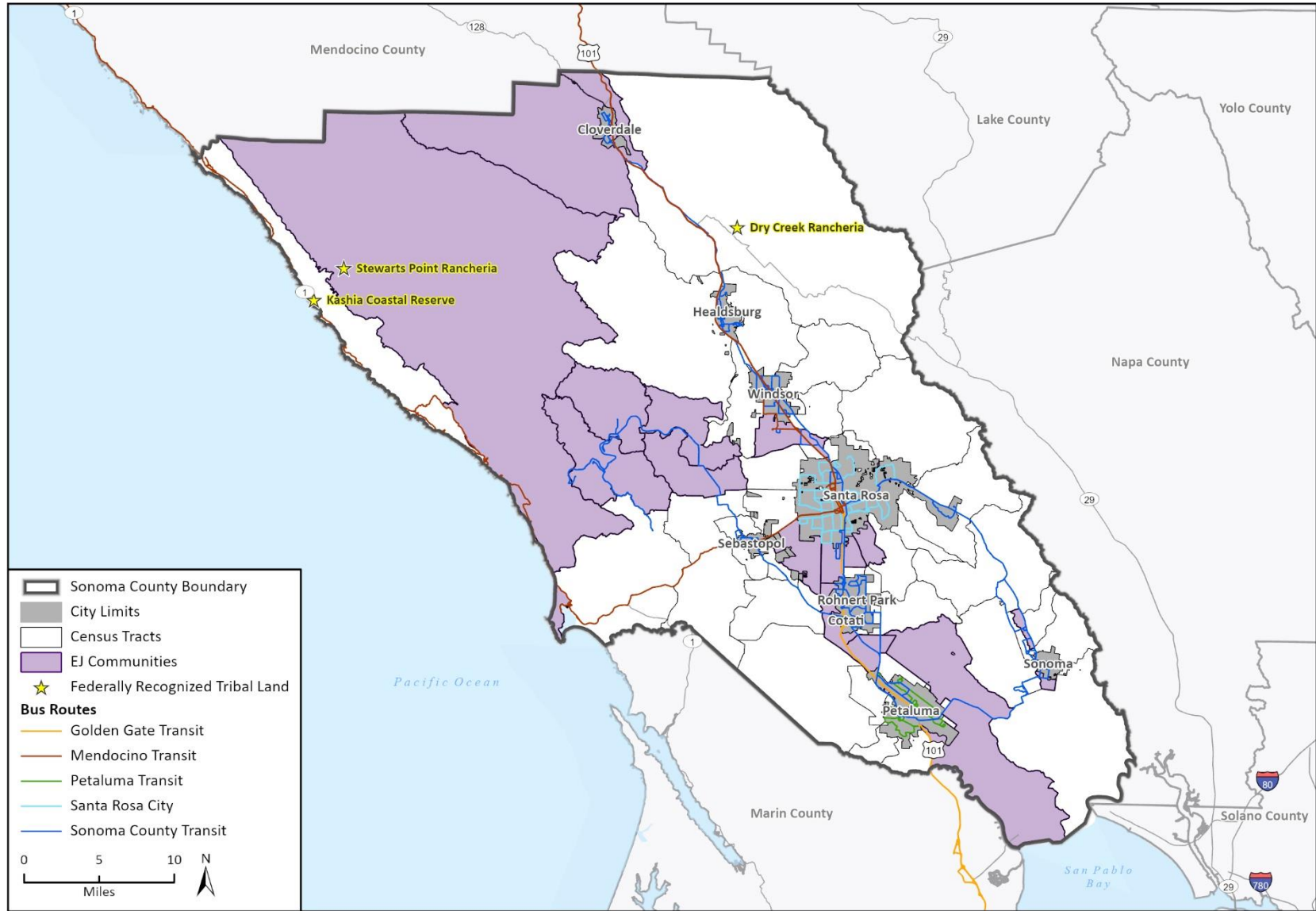
Sonoma County Transit (SCT) provides Countywide and local inner-city service, including in unincorporated areas of the County. Although not in the unincorporated County, Santa Rosa CityBus, Healdsburg Transit, Cloverdale Transit and Petaluma transit provide inner city service. Residents in the planning area are likely to rely on

both transit in the unincorporated County as well as inner city services. Eighty-nine (89) percent of weekday trips in the County are intra-County, of which large percentages originate in the unincorporated planning area.<sup>39</sup> While SCT offers a variety of routes and connections, there is still limited access to these services in some parts of the County. For example, none of SCTs fixed routes directly access the Jenner/Cazadero census tract EJ Community (census tract 6097154304) in the northwestern portion of the County, where Stewarts Point Rancheria is also located. Residents in this area would either need to walk, bike, utilize paratransit services, or take personal vehicles to connect to the nearest SCT stations in or between Cloverdale and Healdsburg. Bus routes within the planning area are shown in Figure 7, below.

SCT offers 20 different fixed-route bus routes that travel north or south between Cloverdale and Petaluma, and east or west between Sonoma and Monte Rio. In addition, SCT routes have the following connections for specified travel in or out of the County:

- **Amtrak Thruway** bus service provides service between McKinleyville and Martinez with stops in Sonoma County, Mendocino County, Solano, and Napa Counties. Sonoma County pickup locations include Cloverdale, Healdsburg, Santa Rosa, Rohnert Park and Petaluma.
- **Golden Gate Transit** operates transit services within Sonoma, Marin, San Francisco, and Contra Costa Counties. SCT Routes 12, 14, 20, 30, 34, 40, 42, 44, 48, 60, and 62 connect with Golden Gate Transit routes in Santa Rosa, Rohnert Park, and Petaluma.
- **Greyhound** provides daily service out of Santa Rosa. Northbound service travels to Humboldt County. Southbound service travels to San Rafael, Oakland, and San Francisco.
- **Mendocino County Transit** offers services within Mendocino County. Mendocino County Transit routes 65 and 95 which connect with SCT routes in Santa Rosa.
- **Petaluma Transit** operates within the City of Petaluma. SCT Routes connect with Petaluma Transit services in Petaluma.
- **Santa Rosa CityBus** provides service in the City of Santa Rosa. SCT Routes connect with CityBus services in Santa Rosa.
- **SMART** is a rail transit service operating between the Sonoma County Airport Boulevard station and Larkspur. Sonoma County stops are provided at Guerneville Road (Santa Rosa), Railroad Square (downtown Santa Rosa), Rohnert Park, Cotati and Petaluma.
- **Sonoma County Airport Express** provides transportation services to and from the San Francisco and Oakland airports.
- SCT also offers **ADA Paratransit Service** which offers shared rides independent of trip purpose. Paratransit Service primarily serves origins and destinations within  $\frac{3}{4}$  of a mile from regular fixed-routes at the same hours and days as fixed-route service. Paratransit services may be reserved up to a week in advance and ticket prices range between \$1.20 to \$3.00 depending on the fare zone. Tickets may be used in lieu of paying a cash fare and having exact change. Paratransit tickets have no expiration date and may be used at any time towards the fare on any Sonoma County Paratransit trip.

**Figure 7 Transit Routes in the Planning Area**



Basemap provided by Esri and its licensors © 2024.  
 Additional data provided by Sonoma County Transportation Authority Countywide Bicycle Plan, 2017; CalEnviroScreen 4.0, 2021; Bureau of Indian Affairs, 2023.  
 22-12991\_EPS\_Sonoma\_CO\_EJ\_Tech\_Report.aprx Fig 13 Sonoma County Bus Routes

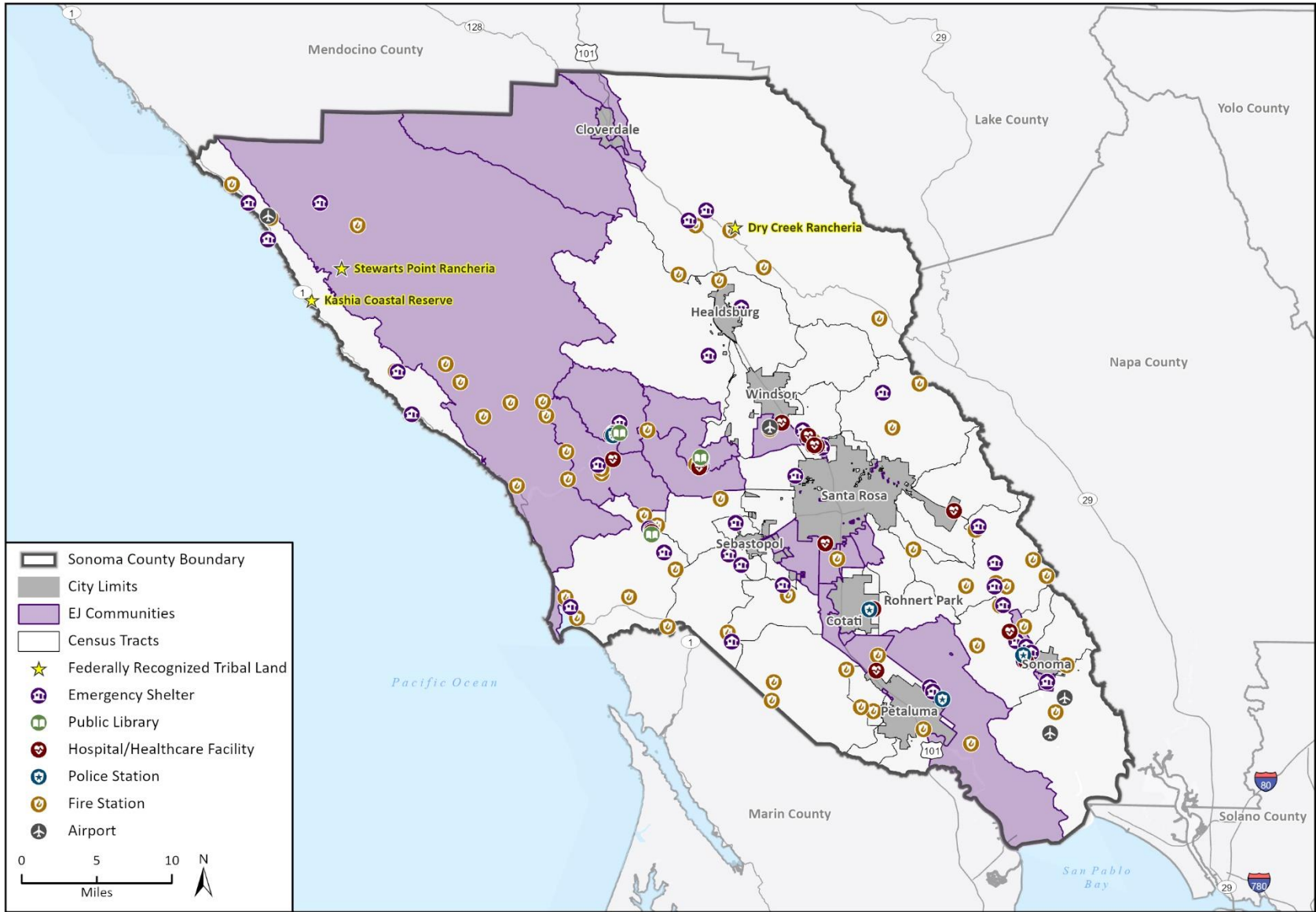
## 5.6 Government Buildings

The availability of government buildings connect EJ Communities with necessary services that contribute to the health, education, and safety of residents. As shown in Figure 8, government buildings and facilities are in closer proximity to major urban centers such as Sonoma, Santa Rosa, and Sebastopol. Emergency centers are more commonly located in the central and southern portions of the County, limiting access to the northern and central west portions. Libraries are located primarily in the central west portion of the County, with much less availability in the northern, central, and southern portions of the County.

Many other government facilities can be found in and around the EJ Communities apart from the East Cloverdale and West Cloverdale census tracts. Neither of these tracts contain any government buildings or services such as police stations, fire stations, libraries, emergency shelters and hospitals. Similarly, the Jenner/Cazadero EJ Community census tract has services centered in the southern portion of the census tract, with the northern portion of the EJ Community lacking many of the same services except for a single emergency shelter and fire station. This northern portion of the Jenner/Cazadero EJ Community is in proximity to the Stewarts Point Rancheria.



**Figure 8 Government Facilities in the Planning Area**



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Additional data provided by Sonoma County, 2022.

22-12991 EPS Sonoma Co EJ Tech Report.aprx  
Fig.11 Government Facilities

## 5.7 County Initiatives to Support Access to Public Facilities

A number of County departments and agencies play a role in providing, maintaining, and planning for public facilities within the unincorporated county. The following are recent examples of initiatives that seek to ensure adequate access to a range of public facilities:

- **SCTA Active Transportation Plan:** The Sonoma County Transportation Authority (SCTA) was awarded a Caltrans Sustainable Communities Transportation Planning Grant to develop a Countywide Active Transportation Plan (CAT Plan). The CAT Plan will be a major update to the SCTA Countywide Bicycle and Pedestrian Master Plan adopted in 2014, and will define priorities for bicycle and pedestrian improvements, identify strategies for the implementation of associated projects and programs, and support countywide bicycle and pedestrian coordination.
- **Sonoma County Strategic Plan 2021-2026.** The Sonoma County Five-Year Strategic Plan includes a number of goals and objectives to address gaps and inequities in services. For example, **Resilient Infrastructure Pillar, Goal 1, Objective 4** seeks to establish neighborhood service hubs in West County, Cloverdale, and Sonoma Valley to improve access to County services in those areas. At the time of this writing, the County has established locations in West County and Sonoma Valley for these satellite service centers, bringing important economic assistance, child support and health services to underserved communities.

## Key Takeaways

- **Parks and Open Space:** Sonoma County has a significant number of regional and community parks, offering various recreational opportunities such as camping, fishing, and hiking. Most Environmental Justice (EJ) Communities have adequate access to park space, but there are EJ communities with low-access. Low-access communities are primarily located in the southern portion of the County.
- **Schools:** There are 165 public schools in Sonoma County, including elementary, unified, and high school districts. Schools are predominantly located in incorporated cities, making commute times longer for students living in unincorporated areas. Laguna High School has the lowest stability rate, with only 42.7% of students completing a full year of learning. Laguna High School is located in the Forestville/Rio Nido EJ Community (census tract 609713705).
- **Bike Lanes:** Biking is not a prevalent mode of transportation in Sonoma County, with only 2% of commuters using bikes. The County has various types of bike lanes, but the overall infrastructure is inadequate, especially in rural areas. Proposed projects aim to improve bike infrastructure, including the addition of over 300 miles of bike lanes.
- **Sidewalks:** Walking is not the primary form of transportation for most residents, and sidewalk accessibility is limited, particularly in unincorporated areas. County-maintained sidewalks are more prevalent in incorporated areas and larger city centers. EJ communities in rural areas have little to no County-maintained sidewalks.
- **Public Transit:** Public transit plays a vital role in improving resource accessibility and mobility for residents without automobiles. Sonoma County Transit (SCT) provides Countywide and local inner-city service, but there are still areas with limited access to transit services, including EJ Communities. The EJ

community in the northwestern portion of the County lacks direct access to any SCT routes.

## 6 Health and Physical Activity

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Environmental injustices, such as unequal exposure to environmental hazards and limited access to healthcare, contribute to health disparities among marginalized communities. Marginalized communities are often located in areas with higher levels of environmental hazards, such as industrial facilities, waste disposal sites, or contaminated water sources. These hazards can lead to various health problems, including asthma, cardiovascular diseases, low birth weight, cancer, and other illnesses. Therefore, unequal exposure to environmental hazards can contribute to health disparities between different communities.

Marginalized communities facing environmental injustices may also experience barriers to accessing healthcare services. Limited availability of healthcare facilities, affordability issues, lack of health insurance, transportation challenges, and language barriers can hinder individuals' ability to seek timely and appropriate healthcare. As a result, the health outcomes of these communities may be further compromised.

### 6.1 Key Health Demographics

This section describes the following health conditions in the EJ Communities that are the most directly linked to exposure to environmental health hazards and limited access to healthcare: asthma, cardiovascular disease, and low birth weight. These three health impacts are used as indicators in CalEnviroScreen and are often the result of other compounding indicators. For example, areas with poor air quality due to the presence of DPM, toxic

releases, or pesticides may increase the risk of respiratory diseases such as asthma. Similarly, areas with poor environmental quality limit residents' ability to participate in safe and healthy outdoor activities, increasing their risk of other health impacts.

#### Asthma

Asthma is a chronic lung condition that creates breathing difficulties. It's caused by swelling in the airways that can lead to symptoms such as wheezing, coughing, shortness of breath and chest tightness. People with asthma can be especially susceptible to pneumonia, flu, and other illnesses. Throughout California, asthma rates have significantly increased in the last three decades.<sup>40</sup> As of 2022, asthma is present amongst 8.7 percent of California's population. The prevalence of asthma within Sonoma County is slightly higher at 11.9 percent.<sup>41</sup>

The average rate of asthma related emergency department visits for census tracts in Sonoma County Environmental Justice (EJ) Communities is lower overall than the average rate for census tracts in the state of California as a whole. Figure 9 depicts the CalEnviroScreen percentile scores for Asthma Emergency Department visits in the planning area relative to other California census tracts. On average, census tracts in the State of California score in the 50<sup>th</sup> percentile and census tracts in Sonoma County score in the 39<sup>th</sup> percentile for asthma according to CalEnviroScreen. Geographically, EJ Communities in the central western portions of the planning area tend to have higher rates of asthma related visits to the emergency department. Asthma-related

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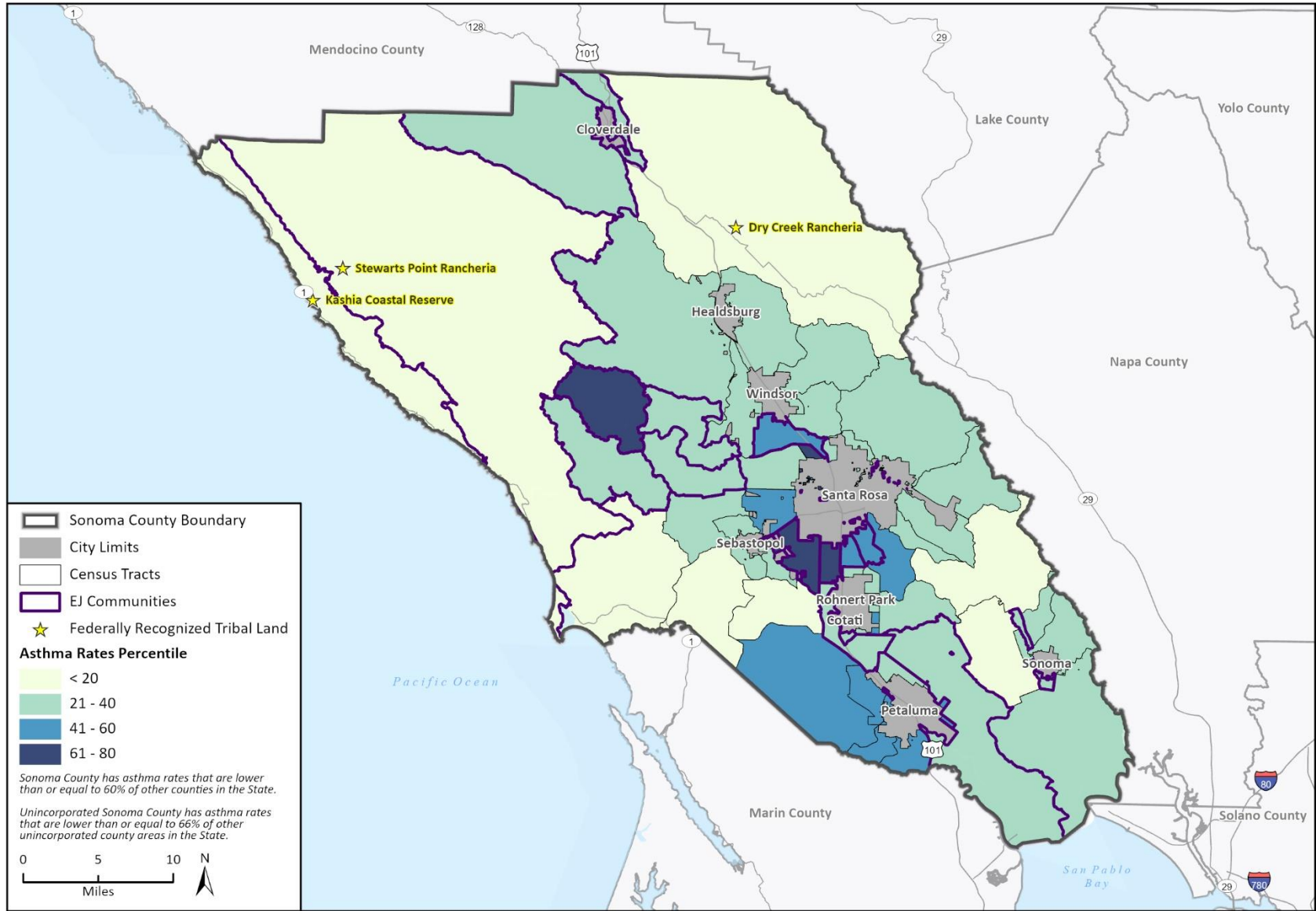
<sup>40</sup> California Department of Public Health (CDPH). 2022. Asthma. <https://www.cdph.ca.gov/Programs/CCDCPHP/DEODC/EHIB/CPE/Pages/Asthma.aspx> (accessed March 2023).

<sup>41</sup> California Department of Public Health (CDPH). 2022. California Asthma Dashboard. <https://www.cdph.ca.gov/Programs/CCDCPHP/DEODC/EHIB/CPE/Pages/CaliforniaBreathingCountyAsthmaProfiles.aspx> (accessed March 2023).

visits to the emergency department were measured by the number of visits per 10,000 people to account for population disparities. Only two (2) EJ Communities in the planning area has a percentile score for asthma emergency visits above the 75<sup>th</sup> percentile. Those

two (2) EJ Communities are located in the Wright and Bellevue census tracts (census tracts 6097153300 and 6097153200), both within the central portion of the County, around the City of Santa Rosa.

**Figure 9 Asthma Rates by Census Tract in the Planning Area**



Basemap provided by Esri and its licensors © 2024.  
 Additional data provided by CalEnviroScreen 4.0, 2021; Priority Population Investments 4.0, 2021; Bureau of Indian Affairs, 2023.

22-12991 EPS Sonoma Co EJ Tech Report.aprx  
 Fig 5 Sonoma County Asthma Rates

## Cardiovascular Disease

Lack of physical activity is associated with an increase in death resulting from heart disease and stroke.<sup>42</sup> Cardiovascular disease refers to conditions that involve blocked or narrowed blood vessels of the heart. There are several risk factors for developing cardiovascular disease including diet, lack of exercise, smoking, and exposure to air pollution. Other risk factors include high blood pressure, diabetes, and high cholesterol. On average, Sonoma County census tracts have a CalEnviroScreen score of 38.4 percentile for cardiovascular disease. As shown in Figure 10, the rate of cardiovascular disease (measured by the number of heart attacks per 10,000 people) was varied throughout EJ Communities in Sonoma County. However, similar to asthma rates, the EJ Communities located at the Wright and Bellevue census tracts (census tracts 6097153300 and 6097153200) in the central portion of the County both scored above the 80<sup>th</sup> percentile.

## Low Birth Weight

Babies who weigh less than five and a half pounds at birth are considered to have a low birth weight. Low birth weight can be caused by poor nutrition, maternal stress, lack of prenatal care, pollution and smoking.<sup>42</sup> According to the CalEPA, low birth-weight babies may face a greater risk of developing asthma or other chronic diseases later in life. California has an overall CalEnviroScreen score within the 50<sup>th</sup> percentile for low birth

weight. On average, Sonoma County has a CalEnviroScreen score of 27.1 for low birth weights, significantly lower than the California percentile. In the Sonoma County planning area, there are no census tracts with significantly elevated percentiles for low birth weight (75<sup>th</sup> percentile +). However, the East Cloverdale census tract EJ Community (census tract 6097154201) in the northwestern portion of the County, as well as the adjacent northwestern census tract containing the Dry Creek Rancheria tribal land (census tract 6097154100) both has low birth weight percentiles above the 60<sup>th</sup> percentile.

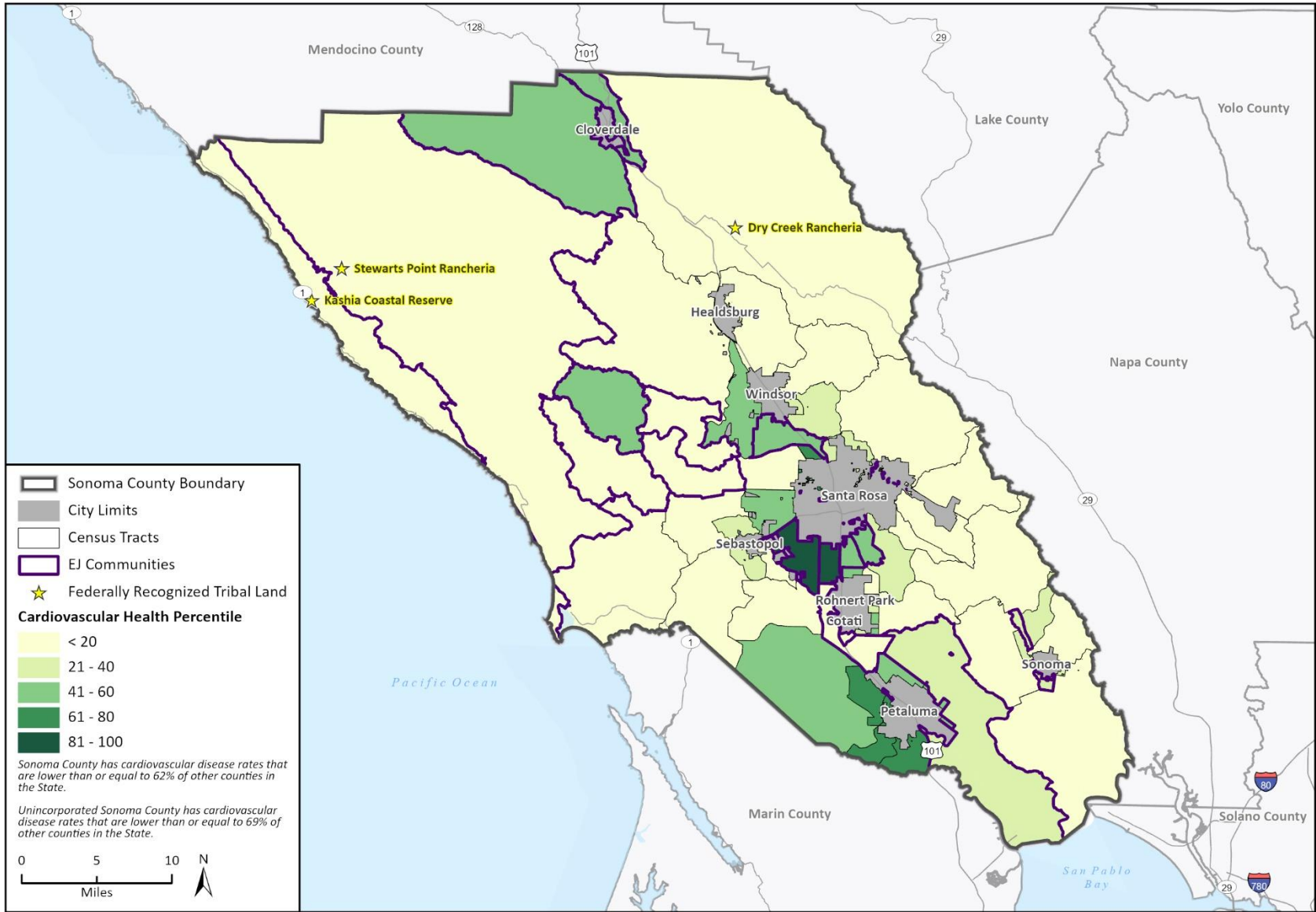
## Life Expectancy

Life expectancy is a statistical measure that estimates the average number of years a person is expected to live based on various demographic factors such as their birth year, gender, and location. It is typically calculated by analyzing mortality rates and population data. Life expectancy is an important measure because it provides valuable insights into the overall health and well-being of a population. According to the 2021 update to the Portrait of Sonoma County, the life expectancy in Sonoma County is 82.2 years.<sup>44</sup> There are notable variations in life expectancy in the Sonoma County depending on racial/ethnic background. The life expectancy for Sonoma County's Black residents is ten years shorter than any other racial and ethnic group in the County. Life expectancy for Latinos in Sonoma County is over two years longer than life expectancy for Latinos at the state level.

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<sup>42</sup> Stanford Medicine Children's Health. 2023. Low Birth Weight. <https://www.stanfordchildrens.org/en/topic/default?id=low-birthweight-90-P02382>. Accessed April 2023.

**Figure 10 Cardiovascular Disease Rate in the Planning Area**



Basemap provided by Esri and its licensors © 2024.  
 Additional data provided by CalEnviroScreen 4.0, 2021; Priority Population Investments 4.0, 2021; Bureau of Indian Affairs, 2023.

22-12991 EPS Sonoma Co EJ Tech Report.aprx  
 Fig 6 Sonoma County Cardiovascular Health



## 6.2 Healthcare Access

The National Academies of Sciences, Engineering, and Medicine define access to health care as the “timely use of personal health services to achieve the best possible health outcomes.”<sup>43</sup> Many people face barriers that prevent or limit access to needed health care services, which may increase the risk of poor health outcomes. Seeking care for these conditions can be particularly challenging for people within EJ Communities due to cost, lack of health insurance, transportation barriers, and limited healthcare resources.

According to the 2021 update to the Portrait of Sonoma County, Sonoma County has seen an increase in insured individuals and fewer people living in poverty. Between 2014 and 2021, the number of uninsured adults in the County decreased from 15 percent to six (6) percent.<sup>44</sup> There are large variations in insurance coverage amongst adults in Sonoma County EJ Communities. Generally, insurance coverage is highest in EJ Communities near the central and southern portions of the County while fewer adults have coverage in the northwestern part of the County. Some EJ Communities within the County that are near dense population centers have the lowest rates of coverage. For example, only 81.4 percent of adults are insured in the Taylor Mountain census tract EJ Community (census tract 6097151402) in the unincorporated area south of Santa Rosa.<sup>45</sup> Similarly, only 81.6 of adults are insured in

<sup>43</sup> Office of Disease Prevention and Health Promotion. 2023. Access to Health Services. <https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/access-health-services#:~:text=The%20National%20Academies%20of%20Sciences%2C%20Engineering%2C%20and%20Medicine,focus%20on%20how%20these%20barriers%20impact%20under-resourced%20communities.> (accessed March 2023).

<sup>44</sup> Sonoma, County of. 2022. A Portrait of Sonoma County: 2021 Update. <https://upstreaminvestments.org/Microsites/Upstream%20Investments/Documents/Archive/Portrait-of-Sonoma-County-2021-Report.ADA.pdf> (accessed March 2023).

the West End census tract and 84.4 percent of adults are insured in the Olivet Road census tract EJ Communities (census tracts 6097153002 and 6097153006) west of the City of Santa Rosa.<sup>45</sup>

These rates of health insurance coverage are much lower than both the State and County rates of coverage. According to the U.S. Census Bureau, 92.5 percent of people are insured in the state of California. On average, Sonoma County has an insurance coverage rate of 93.9 percent.<sup>45</sup>

## 6.3 County Initiatives to Support Community Health

The Sonoma County Department of Health and Human Services provides a variety of programs and supportive services to promote, develop and sustain the physical health of individuals, families, and communities.

[Sonoma County Regional Parks](#) organizes and partners with local organizations on community outreach programs to reduce financial barriers to park access and promote park use as a healthy activity. Annual low-cost vehicle entry passes are available for Sonoma County residents with limited incomes. The Regional Parks River Shuttle is a low-cost transportation option for visiting Steelhead and Sunset beaches on the Russian River.

<sup>45</sup> U.S. Census Bureau. 2019. S2701 Selected Characteristics of Health Insurance Coverage in the United States. [https://data.census.gov/table?q=ethnicity&t=Health+Insurance&g=040XX00US06\\_050XX00US06097\\_1400000US06097150203,06097150305,06097150612,06097150901,06097151201,06097151204,06097151310,06097151401,06097151402,06097152202,06097152501,06097152702,06097153002,06097153006,06097153200,06097153300,06097153703,06097153704,06097153705,06097153706,06097153902,06097154201,06097154202,06097154304](https://data.census.gov/table?q=ethnicity&t=Health+Insurance&g=040XX00US06_050XX00US06097_1400000US06097150203,06097150305,06097150612,06097150901,06097151201,06097151204,06097151310,06097151401,06097151402,06097152202,06097152501,06097152702,06097153002,06097153006,06097153200,06097153300,06097153703,06097153704,06097153705,06097153706,06097153902,06097154201,06097154202,06097154304) (accessed June 2023).

## Key Takeaways

- **Asthma:** Asthma-related emergency department visits in Sonoma County Environmental Justice (EJ) Communities are lower on average compared to the average for all census tracts in the state of California. However, EJ Communities in the central western portions of Sonoma County have higher rates of asthma-related emergency department visits, particularly in the Wright and Bellevue census tracts.
- **Cardiovascular Disease:** On average, Sonoma County census tracts has a CalEnviroScreen percentile score of 38.4 for cardiovascular disease. The rate of cardiovascular disease varies greatly throughout EJ Communities in Sonoma County, but the Wright and Bellevue census tracts in the central portion of the County have rates above the 80th percentile, significantly higher than the County average.
- **Low Birth Weight:** In Sonoma County, the average CalEnviroScreen census tract score for low birth weight is 27.1, indicating a relatively lower prevalence. However, the East Cloverdale census tract EJ Community and the adjacent census tract containing the Dry Creek Rancheria tribal land both have birth weight percentiles above the 60th percentile.
- **Healthcare Access:** Sonoma County has seen an increase in insured individuals and a decrease in the number of uninsured adults from 15 percent to 6 percent between 2014 and 2021. However, there are variations in insurance coverage among adults in Sonoma County EJ Communities. Generally, insurance coverage is highest in EJ Communities near the central and southern portions of the County, while coverage is lower in the northwestern part of the County. Some EJ Communities near dense population centers have the lowest rates of coverage.

## 7 Healthy Food Access

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Access to healthy food is a key determinant of positive health outcomes and quality of life. Adequate food access means that food is affordable, nutritious, and within an accessible distance from home. Limited access to healthy food options can lead to negative health outcomes, such as higher rates of obesity, diabetes, and other diet-related diseases. These health disparities are often more prevalent in marginalized communities, exacerbating existing inequalities. By providing equal access to healthy food, environmental justice aims to improve overall public health and reduce health disparities. Food access can be measured by two indicators: food insecurity and the presence of food deserts.

Sonoma County has a vibrant community of individuals, companies, and organizations working toward growing a sustainable food system in the County, including Ag Innovations, Community Alliance with Family Farmers, Food Systems Alliance (FSA), Petaluma Bounty, California FarmLink, and Farmers Guilds in Sebastopol and Sonoma Valley. These organizations develop plans, capacity, and knowledge to support a sustainable food system at the state and regional levels. The County worked with these and other organizations to develop the Food Action Plan that provides a guiding framework for food systems change.<sup>46</sup>

<sup>46</sup> Sonoma, County of. 2012. Sonoma County Healthy and Sustainable Food Action Plan. [https://aginnovations.org/wp-content/uploads/2019/07/SCFSA\\_FAP.pdf](https://aginnovations.org/wp-content/uploads/2019/07/SCFSA_FAP.pdf) (accessed March 2023).

<sup>47</sup> Feeding America. 2023. Food Insecurity among Overall (all ages) Population in Sonoma County. <https://map.feedingamerica.org/County/2020/overall/california/County/sonoma> (accessed March 2023).

### 7.1 Food Insecurity

The U.S. Department of Agriculture (USDA) defines food insecurity as a lack of consistent access to enough food for an active, healthy life. The food insecurity rate in California is 10 percent of the total population, with 72 percent of those food insecure people considered eligible for the federal Supplemental Nutrition Assistance Program (SNAP).<sup>47</sup> Poverty and unemployment are key drivers of food insecurity. According to Feeding America, the food insecurity rate in Sonoma County was 8.3 percent as of 2021, with approximately 41,080 people defined as food insecure, slightly below California's overall rate of 10 percent.<sup>47</sup> Of those who are classified as food insecure, 42 percent are eligible for SNAP. These statistics include incorporated areas of the County and are not available at the census tract level.

According to the County's Department of Human Services, between the years 2011 and 2018, the number of missed meals was lowest in 2018.<sup>48</sup> However, in 2018, there remained a 14-million meal shortfall between what low-income residents could purchase and what local non-profits, government programs such as CalFresh, school meals, group meals for seniors, and home-delivered meals could provide. In 2018, approximately 60,000 low-income households in Sonoma County could not afford enough food to eat three full meals each day.

<sup>48</sup> Sonoma, County of. 2020. Annual Sonoma County Hunger Index Reports that 1/3 of Residents Went Hungry in 2018. <https://sonomaCounty.ca.gov/hunger-index-2019> (Accessed March 2023).

## 7.2 Food Deserts

“Food desert” refers to a region or neighborhood with a substantial share of residents who live in low-income areas that have low levels of access to a grocery store or a healthy, affordable food retail outlet.<sup>49</sup> The USDA maintains a Food Access Research Atlas that identifies food deserts by census tract within the United States. For the purposes of the Food Access Research Atlas, low-income and low-access census tracts are defined below:

- **Low-income (LI).** A census tract with a poverty rate of 20 percent or greater, or median family income at or below 80 percent of the statewide or metropolitan area median family income.
- **Low-access (LA).** A census tract with at least 500 people or 33 percent of the tract’s population living more than 1 mile (urban areas) or more than 10 miles (rural areas) from the nearest supermarket or grocery store.

Based on the definitions above, there are six food deserts in Sonoma County. All food deserts in the County are also identified Environmental Justice (EJ) Communities. In addition to the six food deserts, there are over 15 census tracts dispersed throughout the planning area that are not considered low income but have low access to grocery stores or other healthy, affordable food centers. As shown in Figure 11 below, there is no clear geographic trend in low-access census tracts in the planning area, as low access tracts are present in the northwestern, central western, and southern portions of the County. However, there is a trend in the presence of food deserts, with three of the six census tracts being located southwest of Santa Rosa.

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<sup>49</sup> United States Department of Agriculture (USDA). 2011. Mapping Food Deserts in the United States. <https://www.ers.usda.gov/amber-waves/2011/december/data-feature-mapping-food-deserts-in-the-us/> (accessed March 2023).

## 7.3 County Initiatives to Support Healthy Food Access

The Sonoma County Department of Health and Human Services administers [CalFresh](#), a food and nutrition program that is part of the federal Supplemental Nutrition Assistance Program (SNAP). CalFresh provides monthly benefits to recipients to help pay for groceries. There are also a number of local organizations that supply food to those in need or coordinate meal provision, including the Redwood Empire Food Bank, Catholic Charities, St. Vincent de Paul, the Sonoma County Council on Aging, and Petaluma Bounty.

In 2016, the [Sonoma County Food System Alliance](#) collaborated with the Sonoma County Department of Health Services to create the Sonoma County Healthy and Sustainable Food Action Plan, which provides a road map with a shared community vision and goals for the local food system.

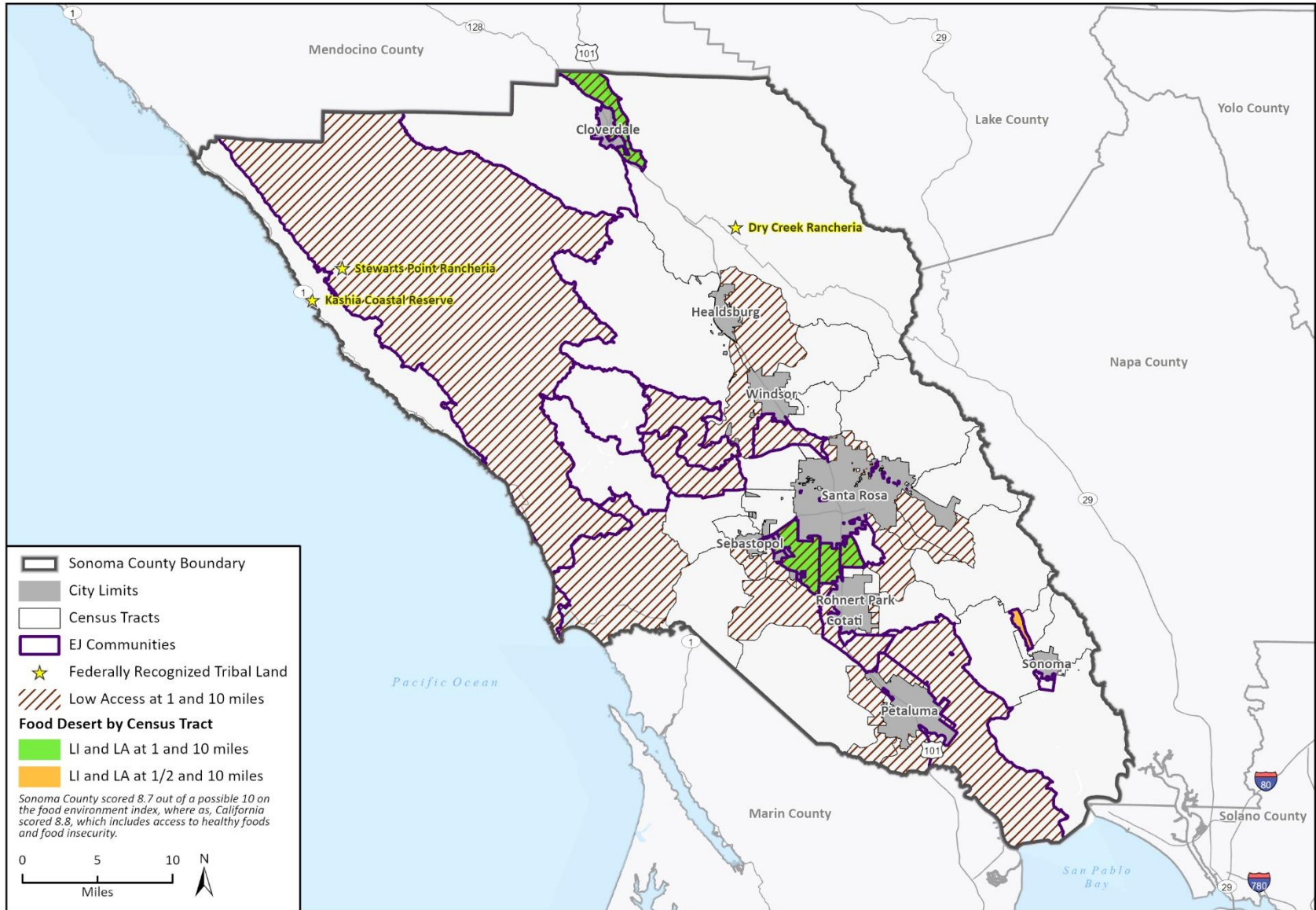
### Key Takeaways

- **Food Insecurity in Sonoma County:** The food insecurity rate in Sonoma County is 8.3 percent, slightly below California's overall rate of 10.5 percent. Approximately 41,080 people in Sonoma County are considered food insecure. Out of those classified as food insecure, 42 percent are eligible for SNAP benefits.
- **Missed Meals and Low-Income Residents:** Between 2011 and 2018, the number of missed meals in Sonoma County was lowest in 2018. However, there was still a shortfall of 14 million meals in 2018 between what low-income residents could afford and the assistance provided by non-profit organizations,

government programs like CalFresh, school meals, group meals for seniors, and home-delivered meals.

- **Food Deserts:** Six communities in Sonoma County are identified food deserts, all of the six are Environmental Justice (EJ) Communities.

Figure 11 Food Deserts Across the Planning Area



Basemap provided by Esri and its licensors © 2024.

Additional data provided by CalEnviroScreen 4.0, 2021; Priority Population Investments 4.0, 2021; Bureau of Indian Affairs, 2023; USDA Economic Research Service, 2022.

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 Fig 7 Sonoma County Food Access

## 8 Safe and Sanitary Housing

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Safe and sanitary homes contribute to the health and well-being of individuals and families. Adequate housing conditions, including access to proper sanitation and ventilation, reduce the risk of diseases and exposure to environmental hazards. Environmental justice recognizes that everyone, regardless of their socioeconomic status or background, deserves to live in a safe and healthy home environment.

Marginalized communities, often including low-income neighborhoods and minority communities, are more likely to experience substandard housing conditions. These communities may face challenges such as overcrowding, inadequate maintenance, limited access to sanitation facilities, pest infestations, lead-based paint, mold, and other indoor pollutants.<sup>50</sup> These unsafe housing conditions can have adverse health effects, exacerbating existing health disparities and environmental injustices. For additional information regarding lead risk from housing please refer to Section 4, *Pollution Burden*, for additional information on lead risk from housing.

### 8.1 Housing Cost Burden

Cost burden is defined by Title 24 Housing and Urban Development (HUD) Code of Federal Regulations Section 91.5 as “the extent to which gross housing costs, including utility costs, exceed 30 percent of gross income, based on data available from the U.S. Census

Bureau.” Households spending a minimum of 30 percent of their total gross income on housing costs are considered cost burdened, whereas households spending over 50 percent on housing costs are considered severely cost burdened.

According to the Sonoma County Housing Element (2023), affordable housing is housing which costs no more than 30 percent of a low-, very low-, or extremely low-income household’s monthly gross income.<sup>51</sup> As household income increases, rates of cost burden generally decrease. Extremely low-income households have the highest rate of cost burden among all income levels in the County, while above moderate-income households have the lowest. In addition, renter households are more likely to experience cost burden than homeowner households. Approximately 56 percent of all renters and 32 percent of all homeowners experience cost burden in unincorporated Sonoma County. Non-white households, especially Black/African American and Native American households, and non-family households also have higher rates of severe cost burden than white households and family households. Approximately 36 percent of senior residents in the unincorporated County are housing cost burdened.<sup>51</sup> It was also found that many households within unincorporated County are cost burdened due to stagnant wages and increasing housing costs. In addition, many homes within the unincorporated County have high costs due to the rural nature of these homes. For example, some homes require on-site waste disposal in rural areas not served by public facilities

<sup>50</sup> Krieger, J., & Higgins, D. L. 2002. Housing and health: time again for public health action. *American journal of public health*, 92(5), 758–768. <https://doi.org/10.2105/ajph.92.5.758> (accessed March 2023).

<sup>51</sup> Sonoma, County of. 2023. Sonoma County Housing Element. [https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Long%20Range%20Plans/Proposed%20Plans/Housing%20Element/March%20HCD%20Revised%20Review%20Draft/SOCO%20HCD%20Revised%20Draft%20Housing%20Element%20-%20rev%203.13.23-a\\_119727.pdf](https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Long%20Range%20Plans/Proposed%20Plans/Housing%20Element/March%20HCD%20Revised%20Review%20Draft/SOCO%20HCD%20Revised%20Draft%20Housing%20Element%20-%20rev%203.13.23-a_119727.pdf) (accessed April 2023).

which drives up the cost both for the development of housing and existing costs of housing.

CalEnviroScreen measures housing burden by census tract by identifying the percent of households that are both high in housing cost burden (paying greater than 50 percent of their income to housing costs) and low in income (making less than 80 percent of the HUD Area Median Family Income). Sonoma County received a CalEnviroScreen score of 42.5 for housing burden. Comparatively, the state of California has a percentile score of 50.2 for housing burden. Figure 12 and Table 5 below show the CalEnviroScreen housing burden percentiles across Sonoma County. Approximately a fourth of all identified Environmental Justice (EJ) Communities in Sonoma County were above the 75<sup>th</sup> percentile for housing burden

for all census tracts in the state. Those EJ Communities are located in the Guerneville, West Cotati/Penngrove, Fetters Springs/Agua Caliente West, Monte Rio, and Bellevue census tracts (census tracts 6097153704, 6097151201, 6097150305, 6097153703, 6097153200). More than 25 percent of the population in each of these tracts are affected by housing cost burden. Generally, EJ Communities located in the southern portion of the County tend to have higher percentages of overpayment by renters of over 50 percent. No EJ Communities within the northwestern portion of the County were identified as being cost burdened.

The Sonoma County Housing Element (2023) Technical Background Report and Appendix B contains further detail on housing cost burden within the County.



**Table 5 Housing Cost Burden by Environmental Justice Census Tract**

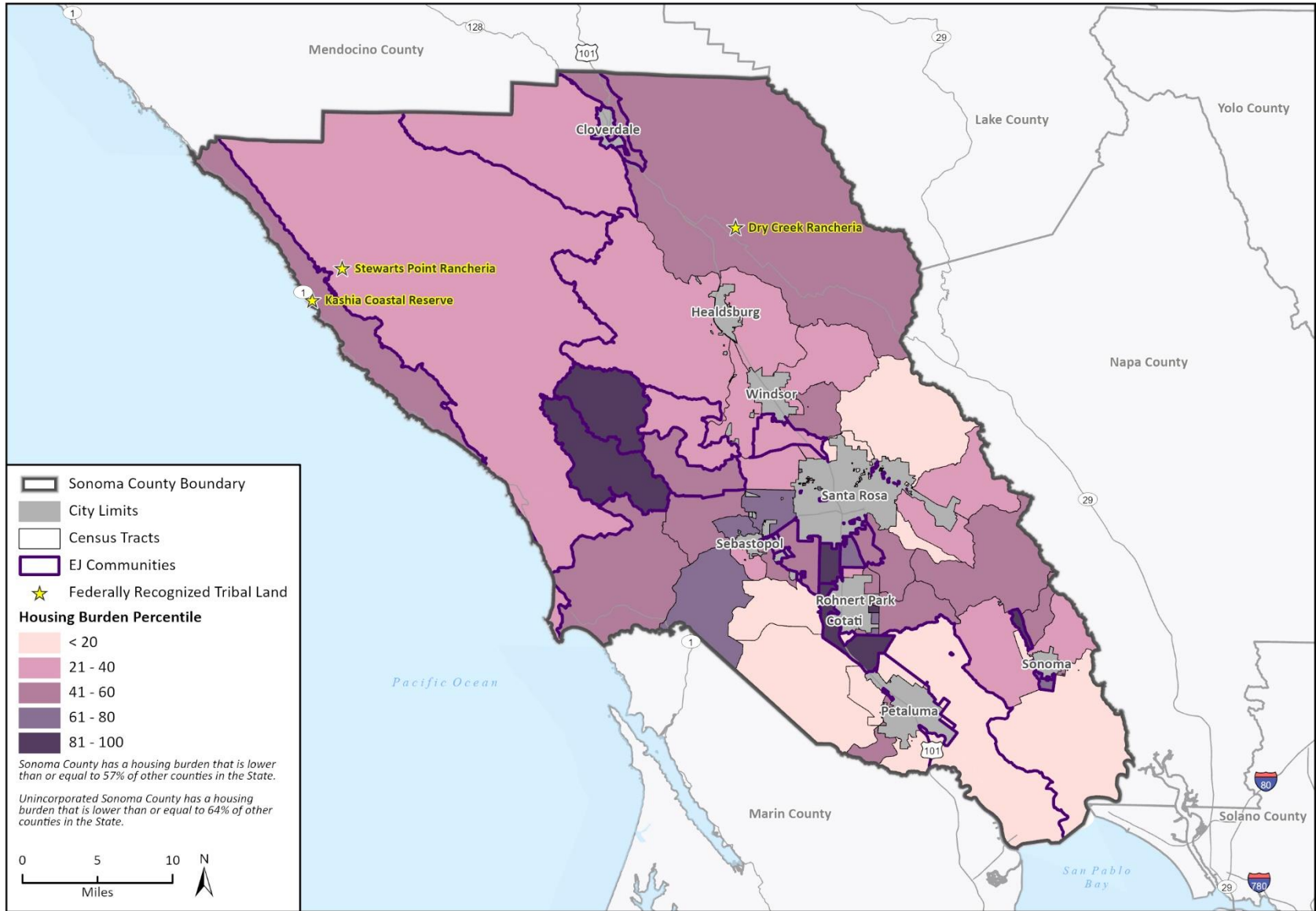
Region and Census Tract	Housing Burden	
	Percentage of Population Affected	Percentile Score
<b>Sonoma County</b>	<b>N/A</b>	<b>43</b>
<b>Northwestern</b>		
East Cloverdale	17	51
West Cloverdale	12	24
Jenner/Cazadero	14	32
<b>Central West</b>		
Guerneville	25	81
Forestville/Rio Nido	15	36
Russian River Valley	16	45
Monte Rio**	30	90
<b>Central</b>		
Middle Rincon South*	20	63
Brush Creek*	18	54
Kawana Springs	17	46
Olivet Road	7.6	6
Taylor Mountain	21	68
Wright**	17	47
Bellevue**	26	83
West End*	15	40
Shiloh South	15	36
<b>Southern</b>		
McKinley	15	39
Downtown Cotati	10	14
West Cotati/Penngrove	27	84
Fetters Springs/Agua Caliente West**	27	86
Petaluma Airport/Arroyo Park	10	13
Sonoma City South/Vineburg	20	61

\* Unincorporated island in City of Santa Rosa

\*\* Metropolitan Transportation Commission (MTC) Equity Priority Community

Source: CalEnviroScreen 4.0

**Figure 12 Housing Burden Scores Across the Planning Area**



Basemap provided by Esri and its licensors © 2024.  
 Additional data provided by CalEnviroScreen 4.0, 2021; Priority Population Investments 4.0, 2021; Bureau of Indian Affairs, 2023.

22-12991 EPS Sonoma Co EJ Tech Report.aprx  
 Fig 8 Sonoma County Housing Burden

## 8.2 Overcrowding

The California Department of Housing and Community Development (HCD) defines an overcrowded unit as one occupied by 1.01 persons or more per room (excluding bathrooms and kitchens).<sup>52</sup> According to the 2020 ACS 5-Year Estimates, approximately 13 percent of all renter-occupied housing units and four (4) percent of all owner-occupied units in the unincorporated County were considered overcrowded or severely overcrowded. For reference, the statewide overcrowding percentage was 8.2 percent.

People with low income are more likely to live in overcrowded homes. Overcrowding increases risk of respiratory infections and activation of tuberculosis.<sup>52</sup> The presence of major overcrowding within the planning area may be a significant risk factor for poor health outcomes within the community. According to the State of Housing in Sonoma County (2022) report, the Springs neighborhood near the Fetters Springs/Agua Caliente West EJ Community (census tract 6097150305) in Sonoma Valley has the highest rate of

overcrowding, with approximately 29 percent of households deemed to be overcrowded.

Nearly 30 percent of homes within the Fetters Springs/Agua Caliente West EJ Community are overcrowded. In addition, the EJ Community at the Jenner/Cazadero census tract (census tract 6097154304) in the northwestern region of the County has 16 percent of homes recorded as being overcrowded. The Jenner/Cazadero census tract is where Stewarts Point Rancheria is also located. All EJ Community census tracts and the corresponding overcrowding percentiles are shown in Table 6, below.

The Sonoma County Housing Element (2023) Technical Background Report and Appendix B (2022) contain further detail on overcrowding within the County.

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<sup>52</sup> California Department of Housing and Community Development. 2023. Overpayment and Overcrowding. <https://www.hcd.ca.gov/planning-and-community-development/housing-elements/building-blocks/overpayment-payment-and-overcrowding> (accessed March 2023).

**Table 6 Overcrowding by Environmental Justice Census Tract**

Region and Census Tract	Percentage of Population Affected
<b>Sonoma County</b>	<b>5</b>
<b>Northwestern</b>	
East Cloverdale	9
West Cloverdale	6
Jenner/Cazadero	16
<b>Central West</b>	
Guerneville	5
Forestville/Rio Nido	4
Russian River Valley	2
Monte Rio**	2
<b>Central</b>	
Middle Rincon South*	4
Brush Creek*	4
Kawana Springs	7
Olivet Road	3
Taylor Mountain	12
Wright**	7
Bellevue**	11
West End*	12
Shiloh South	7
<b>Southern</b>	
McKinley	10
Downtown Cotati	10
West Cotati/Penngrrove	7
Fetters Springs/Agua Caliente West**	29
Petaluma Airport/Arroyo Park	1
Sonoma City South/Vineburg	1

\* Unincorporated island in City of Santa Rosa

\*\* Metropolitan Transportation Commission (MTC) Equity Priority Community

Source: U.S. Census Bureau, 2019 ACS 5-Year Estimates Detailed Table (B25014 Tenure by Occupants)

## 8.3 Substandard Housing

The U.S. Census Bureau identifies substandard housing based on two primary housing problems: (1) Households without hot and cold piped water, a flush toilet and a bathtub or shower; and (2) Households with kitchen facilities that lack a sink with piped water, a range or stove, or a refrigerator. According to the Sonoma County Housing Element (2023) Technical Background Report, less than one percent of owner households and just over two percent of renter households lack kitchens or have plumbing deficiencies.<sup>53</sup>

The Sonoma County Housing Element (2023) Technical Background Report and Appendix B (2022) contain further detail on substandard housing within the County.

## 8.4 Homelessness

Homelessness remains an important challenge in many communities across the state. Rising housing costs result in increased risk of community members experiencing homelessness. The last Point-In-Time Count in Sonoma County, conducted in 2022, was 2,893 people experiencing homelessness. This constitutes a five percent increase in people experiencing homelessness in the County from 2021. Around 5 percent of the community members experiencing homelessness were in the unincorporated County, many of which reside in West County and Sonoma Valley.<sup>53</sup>

The most common type of households experiencing homelessness in Sonoma County are those without children in their care. Among households experiencing homelessness that do not have children,

<sup>53</sup> Sonoma, County of. 2023. Sonoma County Housing Element Technical Background Report. [https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Long%20Range%20Plans/Proposed%20Plans/Housing%20Element/March%20HCD%20Revised%20Review%20Draft/SOCO%20HCD%20Revised%20Draft%20Housing%20Element%20TBR%20-%20Rev%203.13.23-a\\_119726.pdf](https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Long%20Range%20Plans/Proposed%20Plans/Housing%20Element/March%20HCD%20Revised%20Review%20Draft/SOCO%20HCD%20Revised%20Draft%20Housing%20Element%20TBR%20-%20Rev%203.13.23-a_119726.pdf) (accessed June 2023).

71.2 percent are unsheltered.<sup>54</sup> Of those households experiencing homelessness with children, most are sheltered in emergency shelters.<sup>54</sup>

Of those experiencing homelessness, White (Hispanic and Non-Hispanic) account for 64.7 percent of the homeless population in Sonoma County.<sup>54</sup> Latino residents represent 28.2 percent of the population experiencing homelessness.<sup>54</sup> Black and Native American people, who make up approximately 1.5 and 1 percent of the population respectively, represent 6 percent and 9 percent of unhoused individuals in Sonoma County.<sup>53</sup> Other special needs populations that are statistically more likely to experience homelessness in Sonoma County include LGBTQ youth, people who have been in the foster care system, and people with disabilities.<sup>53</sup>

In addition, many individuals experiencing homelessness are also impacted by severe issues such as mental illness, substance abuse, and domestic violence. Homeless individuals are commonly challenged by chronic substance abuse, with 1,015 homeless residents reporting this condition.<sup>54</sup> Of those, 80.5 percent are unsheltered.

Homelessness amongst students in Sonoma County has also been a persistent issue. Although Sonoma County has seen a 12.9 percent decrease in the population of students experiencing homelessness since the 2016-17 school year, 44.4 percent of the Sonoma County total student population is still experiencing homelessness.<sup>54</sup>

The Sonoma County Housing Element (2023) Technical Background Report and Appendix B (2022) contain further detail on homelessness within the County.

<sup>54</sup> Sonoma, County of. 2022. Appendix B: Housing Needs Data Report. <https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Long%20Range%20Plans/Proposed%20Plans/Housing%20Element/Sonoma%20County%20HCD%20Review%20Draft%20Housing%20Appendices.pdf> (accessed June 2023).

## 8.5 Lead Risk from Housing

Lead poisoning can often result from lead exposure at home due to the use of contaminated materials such as lead-based paint and lead-contaminated dust in older buildings. Lead exposure can also occur through contaminated air, water, and soil. Census tracts in California scored on average in the 50<sup>th</sup> percentile for impacts for lead risk. On average, census tracts within Sonoma County have percentile scores for lead risk from housing that measured at 36.4 percentile relative to all California census tracts. This County metric is relatively low. Children’s lead risk from housing across EJ Communities in the County varied, with some census tracts in the southern portion of the County scoring as low as the 7<sup>th</sup> percentile and others scoring up to the 85<sup>th</sup> percentile. The EJ Community located at the East Cloverdale census tract in the northwestern portion of the County (census tract 6097154201) scored in the 85<sup>th</sup> percentile.

## 8.6 County Initiatives to Support Access to Safe & Sanitary Homes

The County of Sonoma’s 2023-2031 Housing Element sets forth the County’s housing priorities and goals for the next eight years to provide safe and adequate housing for all residents. The goals and policy focus areas include:

- Sustain Existing Housing Programs and Housing Units
- Promote the Use of Urban Sites
- Increase Production of Affordable Units
- Maintain Funding for Affordable Housing
- Promote and Expand Housing for Special Needs

- Encourage Equitable and Sustainable Housing

The Housing Element’s Housing Action Plan includes over 30 programs designed to implement the above goals and related policies to address the existing and projected housing needs of Sonoma County. The Housing Action Plan includes continuance of existing efforts and new initiatives to support safe and equitable housing through programs that affirmatively further fair housing such as the development of a Housing Equity and Action Plan (31), implementing a Proactive Outreach Plan (Program 32), and continuance of a Fair Housing Program (Program 29) among others.

### Key Takeaways

- **Overcrowding:** Approximately 13 percent of renter-occupied housing units and 4 percent of owner-occupied units in the unincorporated County are considered overcrowded or severely overcrowded.
- **Cost Burden:** Approximately a fourth of all identified Environmental Justice (EJ) Communities in Sonoma County were above the 75<sup>th</sup> percentile for housing burden relative to all census tracts in the state. Those EJ Communities are located in the Guerneville, West Cotati/Penngrove, Fetters Springs/Agua Caliente West, Monte Rio, and Bellevue census tracts.
- According to the Sonoma County Housing Element (2023) Technical Background Report, less than one percent of owner households and just over two percent of renter households lack kitchens or have plumbing deficiencies.
- Data from the most recent Point-In-Time count indicates that homelessness is on the rise in Sonoma County, with White individuals, including Hispanic and non-Hispanic, account for 64.7 percent of the homeless population, while Latinx residents represent 28.2 percent.

## 9 Civic Engagement in the Public Decision-Making Process

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Equitable planning requires community engagement that creates opportunities for and actively encourages all residents to participate in the local decision-making process. Senate Bill 1000 affirms that public agencies should develop community engagement programs in a manner that strategically involves Environmental Justice (EJ) Communities and other protected classes. By involving and engaging EJ Communities and other historically underrepresented groups in decision-making processes, policymakers can more effectively develop solutions for issues that impact the health and well-being of these communities.

Language needs and a lack of time or resources (e.g. child care, financial resources, transportation) are often barriers to participation for historically marginalized or underrepresented groups. Successful outreach and engagement utilize tactics that reduce accessibility barriers to improve opportunities for meaningful participation.

Broadband access, language, and age are all acute conditions of Sonoma County's diverse population that can limit participation and inclusion in civic engagement in the public decision-making process. Each of these qualities offer new challenges when connecting with a broader audience and require varying forms of communication in order to ensure that all members of a community have equal opportunities for public participation.

### 9.1 Historically Marginalized Groups

Historically marginalized groups have and continue to be underrepresented in public decision-making processes, in large part due to systemic inequities that create physical, social, and financial

barriers to participation. Governmental and institutional systems often do not account for diverse and intersectional identities and lived experiences across race, ethnicity, religion, gender, sexual orientation, disability, socioeconomic background, and citizenship status.

EJ Communities experience disproportionate pollution and environmental burdens and socioeconomic stress because of historic underrepresentation in planning and policy decisions. The EJ Communities identified and referenced throughout this report are not exclusive from the historically marginalized groups listed below; EJ Communities may include persons that identify with one or more of the below population groups.

Population groups that have historically been underrepresented in government planning processes or marginalized include the following:

- **All tribal communities.** Across the United States, tribal communities have historically been marginalized and excluded from government processes. According to the 2021 update to the Portrait of Sonoma, Native Americans make up less than 1 percent of the Sonoma County population but are overrepresented among Sonoma County residents who are unhoused. Additionally, among racial and ethnic groups, Native Americans in Sonoma County have substantially higher-than expected 2020 mortality rates.<sup>55</sup>
- **Undocumented immigrants.** Undocumented individuals are historically underrepresented in government and decision-making within the United States often due to lack of trust in local institutions, linguistic isolation, and economic hardship. Six (6) percent of the Sonoma County population is considered to

be an individual residing in the United States without legal documentation.

- **Individuals with a disability.** Individuals with disabilities are often excluded from local government engagement due to lack of accessibility. Twelve (12) percent of the Sonoma County population are individuals with access and functional needs (physical and mental).<sup>55</sup>
- **Single-female heads of households.** Single female heads of households, as defined by the U.S. Census as female householders with children under 18-years-old and no spouse/partner present, often face high levels of work-life conflict and financial hardship, which can make for engaging in traditional forms of decision-making processes more difficult.
- **LGBTQIA2S+ communities.** LGBTQIA2S+ are disproportionately likely to experience homelessness. LGBTQIA2S+ youth who are homeless often experienced family rejection or abuse related to their sexual orientation or gender identity. Sixteen percent of Sonoma County residents who are unhoused identified as LGBTQIA2S+.<sup>55</sup>
- **Low wage workers,** including workers in agriculture or the service industries. Farmworkers in Sonoma County do not earn enough money to meet their basic needs and are more likely to experience food insecurity than Sonoma County's poorest residents. In 2019, one in ten hospitality and tourism workers in Sonoma County lost their jobs due to Covid-19.<sup>55</sup>
- **People experiencing mental health illness.** Since 2017, Sonoma County has experienced a series of disasters that are contributing to a mental health crisis. People who belong to one or more marginalized groups are more likely to experience mental health challenges.<sup>55</sup>

- **Latino Residents.** Latino residents of Sonoma County has a lower Human Development Index score than their Asian and White counterparts. In addition, Latino residents has significantly lower educational attainment rates than Sonoma County whites and earn \$15,000 less, on average.<sup>55</sup>
- **Black residents.** Black residents of Sonoma County has a lower Human Development Index score than their Asian and White counterparts. In addition, Sonoma County's Black residents have a lifespan ten years shorter than any other racial and ethnic group in the County and have lower educational attainment rates than the County average.<sup>55</sup>
- **Asian residents.** Asian residents of Sonoma County have a lifespan two years shorter than Californians overall and earn \$14,000 less than their White and Black counterparts, despite having higher levels of educational attainment.<sup>55</sup>

## 9.2 Broadband Access

Adequate availability of broadband internet allows for populations to access important materials and tools to sustain employment and participate in social and civic life. According to the Federal Communication Commission's (FCC) Broadband mapping, census tracts in the central, central west, and southern portions of the planning area have limited access to fixed and mobile broadband internet. According to the Sonoma County Broadband Action Plan (2021), the County currently lacks a comprehensive, cohesive, and diverse broadband network. Underserved communities are usually located in low density and high-cost rural areas where wireline deployment can be expensive and cost prohibitive due to lower demand.<sup>56</sup> Fiberoptics is lacking throughout Sonoma County. In

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<sup>55</sup> Sonoma, County of. 2022. A Portrait of Sonoma County: 2021 Update. <https://upstreaminvestments.org/Microsites/Upstream%20Investments/Documents/Archive/Portrait-of-Sonoma-County-2021-Report.ADA.pdf> (accessed March 2023).

<sup>56</sup> Sonoma, County of. 2021. Access Sonoma Broadband Action Plan. Access Sonoma Broadband Action Plan (sonomaedb.org) (accessed March 2023).

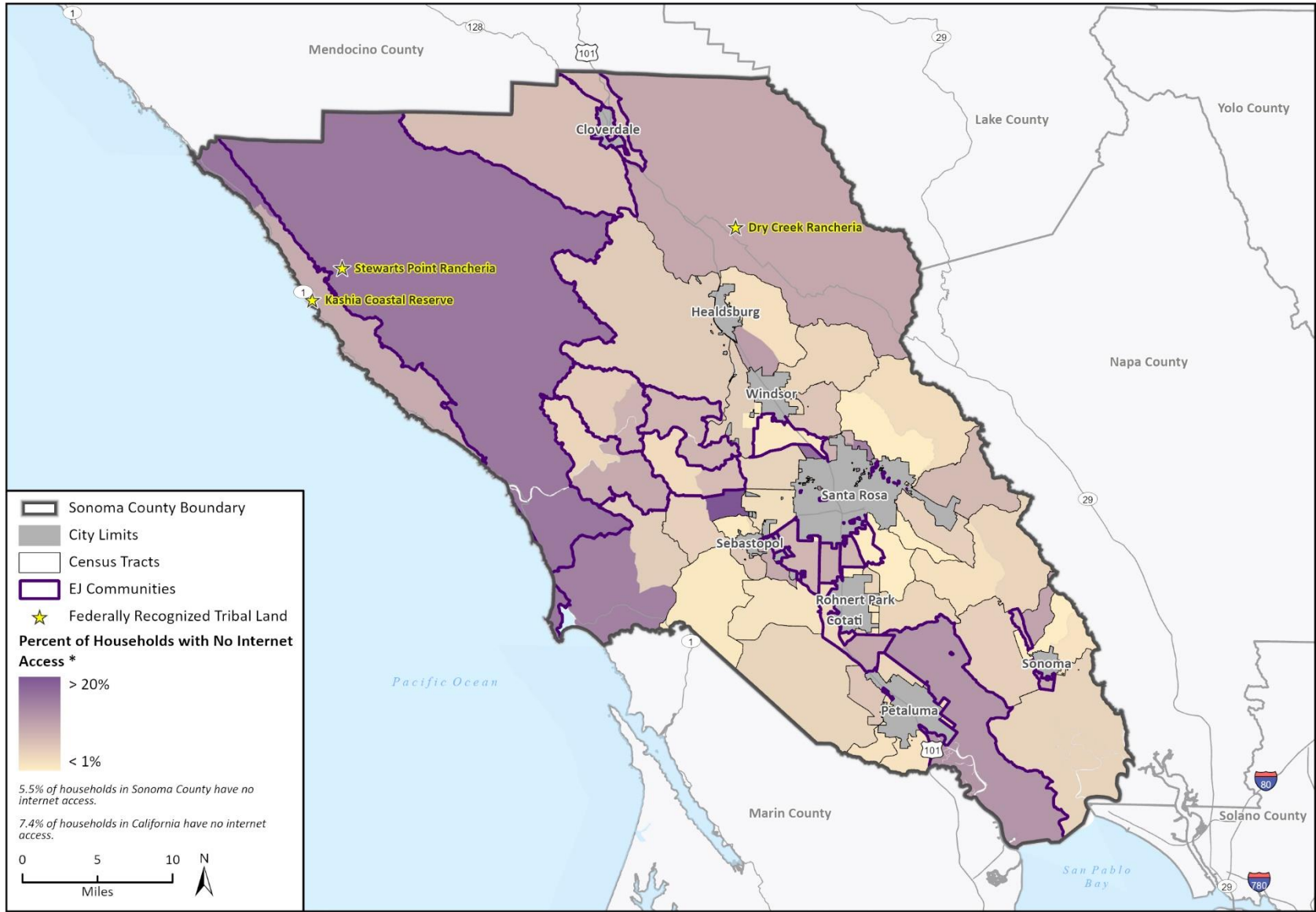


addition, existing infrastructure is either failing or outdated in unserved communities.<sup>56</sup> In areas where infrastructure is not a primary challenge, some communities still experience barriers due to affordability, technology access, and digital literacy.

Because of the infrastructure necessary to support broadband access, rural communities across the United States are less likely to have access to adequate internet. According to the U.S. Department of Agriculture, 22.3 percent of Americans in rural areas do not have

access to sufficient broadband internet. Figure 13 depicts broadband access within the County. Mobile broadband internet is less available in the northwestern and southern portions of the County. Notably, over 20 percent of households in the EJ Community located in the Jenner/Cazadero census tract (census tract 6097154304) in the northwestern portion of the County lack access to internet. This census tract includes Stewarts Point Rancheria.

**Figure 13 Broadband Access Across the Planning Area**



Basemap provided by Esri and its licensors © 2024. Additional data provided by CalEnviroScreen 4.0, 2021; Priority Population Investments 4.0, 2021; Bureau of Indian Affairs, 2023; Census Bureau, ACS, 2020.  
 \* This figure was developed using the most recent ACS Census Data. For the purpose of the EJ - Internet Connectivity analysis, 2010 census tract boundaries have been transposed onto the 2020 ACS Census Data.

### 9.3 Population Age Demographics

Understanding the age demographics within a community is essential to the development of an engagement strategy that reaches a broad group of residents. Depending on the distribution of age across a population, different approaches to outreach and community interaction should be explored. Aging populations may be less proficient in using online engagement tools or less able to attend evening civic meetings. Younger populations within a community may be less able to engage through traditional outreach methods (phone calls, newspaper outreach, etc.) and/or midday meetings. To develop an appropriate engagement strategy, public agencies should assess local age demographics to determine what approaches and tools would best meet community needs.

In 2021, the largest age group represented in Sonoma County was the older adult aged population, which encompasses the age group

from 55 to 59 years old. In addition, roughly one in every five people was age 65 or older.<sup>57</sup> Table 7 shows the age demographics for individual EJ Communities within the planning area. Twelve EJ Communities have greater than 15 percent of their population at or above the age of 65, including all four EJ Communities within the central west region of the planning area. Three of four EJ Communities in the northwestern portion of the County has greater than 15 percent of their population at or above the age of 65. This includes the Jenner/Cazadero census tract EJ Community (census tract 6097154304), containing Stewarts Point Rancheria. EJ Communities with greater than 15 percent of their population at or below the age of 10 were present in all regions of the County except for the central west portion.

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<sup>57</sup> U.S. Census Bureau, 2019 ACS 5-Year Estimates Detailed Table (S0101 Age and Sex)

**Table 7 Age Demographics by Environmental Justice Census Tract**

Region and Census Tract	Total Population	Age Demographics		
		Children < 10 Years (Percent)	Population 10-64 Years (Percent)	Elderly >64 Years (Percent)
<b>Sonoma County</b>	<b>499,772</b>	<b>11</b>	<b>70</b>	<b>19</b>
<b>Northwestern</b>				
East Cloverdale	3,959	17	70	13
West Cloverdale	6,050	11	65	24
Jenner/Cazadero	1,528	4	42	54
<b>Central West</b>				
Guerneville	4,071	6	68	26
Forestville/Rio Nido	3,936	5	71	25
Russian River Valley	4,440	7	68	25
Monte Rio**	3,506	7	70	24
<b>Central</b>				
Middle Rincon South*	4,352	16	73	11
Brush Creek*	6,510	9	67	25
Kawana Springs	8,050	14	79	7
Olivet Road	8,199	13	69	18
Taylor Mountain	9,853	11	79	9
Wright**	12,385	9	78	13
Bellevue**	8,327	17	75	8
West End*	6,864	16	76	8
Shiloh South	5,342	13	73	14
<b>Southern</b>				
McKinley	5,053	15	73	12
Downtown Cotati	2,987	13	73	15
West Cotati/Penngrrove	7,069	13	65	22
Fettters Springs/Agua Caliente West**	6,183	16	75	9
Petaluma Airport/Arroyo Park	4,676	10	72	18
Sonoma City South/Vineburg	4,561	5	59	36

\* Unincorporated island in City of Santa Rosa

\*\* Metropolitan Transportation Commission (MTC) Equity Priority Community

Source: U.S. Census Bureau, 2019 ACS 5-Year Estimates Detailed Table (S0101 Age and Sex)

## 9.4 Linguistic Isolation

According to the U.S. Census Bureau, more than 40 percent of the population in California speak a language other than English at home. Households that are considered linguistically isolated are those households where no person over the age of 14 speaks English proficiently.<sup>58</sup> For these households, English-only community engagement strategies are not sufficient to meaningfully gather input. Identifying predominant language demographics within a jurisdiction, translating written materials to relevant languages, and including translation services at events and meetings make engagement activities more accessible and result in better service provision and policy development. According to the Sonoma County Community Development Commission Language Action Plan (2019), approximately 11.26 percent of the County is linguistically isolated. According to the 2019 Sonoma County Latino Scorecard prepared by Los Cien, a local non-profit, linguistic isolation was found in approximately 30 percent of the Latinx population in Sonoma County.<sup>59</sup>

The CalEnviroScreen linguistic isolation indicator measures the percentage of households in each census tract in which no one over

the age of 14 speaks English well. The linguistic isolation percentages outlined in Table 8 indicate varied rates of linguistic isolation throughout the County's EJ Communities. Four EJ Communities scored above the 60<sup>th</sup> percentile, and of those four, only the East Cloverdale EJ Community (census tract 6097154201) in the northwestern portion of the County scored above the 75<sup>th</sup> percentile.

Across the County, the primary language spoken by persons with limited English proficiency was Spanish.<sup>60</sup> Numerous census tracts within the planning area also have significant portions of the population who speak "Asian and Pacific Islander Languages" as classified by the U.S. Census. The "Asian and Pacific Islander Languages" census label is a broad label that encompasses twenty-three languages, including Mandarin, Vietnamese, and Khmer. Integrating the local language context into community engagement strategies supports equitable and comprehensive planning processes within Sonoma County.

<sup>58</sup> Siegel, P., Martin, E. and Bruno R. 2001. Language Use and Linguistic Isolation. U.S. Census Bureau. <https://www.census.gov/content/dam/Census/library/working-papers/2001/demo/li-final.pdf> (accessed March 2023).

<sup>59</sup> Lo Cien. 2019. 2019 Sonoma County Latino Scorecard. [https://www.los cien.org/wp-content/uploads/2019/10/Latino-Scorecard-2-pager\\_English-FINAL.pdf](https://www.los cien.org/wp-content/uploads/2019/10/Latino-Scorecard-2-pager_English-FINAL.pdf) (accessed March 2023).

<sup>60</sup> Sonoma, County of. 2019. Sonoma County Community Development Commission Language Access Plan.

[https://sonomaCounty.ca.gov/Main%20County%20Site/General/Sonoma/Sample%20Dept/Department%20Information/Plans%2C%20Policies%20and%20Reports/\\_Documents/2019%20Language%20Access%20Plan.pdf](https://sonomaCounty.ca.gov/Main%20County%20Site/General/Sonoma/Sample%20Dept/Department%20Information/Plans%2C%20Policies%20and%20Reports/_Documents/2019%20Language%20Access%20Plan.pdf) (March 2023).

**Table 8 Linguistic Isolation by Environmental Justice Census Tract**

Region and Census Tract	Linguistic Isolation	
	Percentage of Population Effected	Percentile Score
<b>Sonoma County</b>	<b>N/A</b>	<b>28</b>
<b>Northwestern</b>		
East Cloverdale	14	76
West Cloverdale	3	21
Jenner/Cazadero	1	8
<b>Central West</b>		
Guerneville	2	13
Forestville/Rio Nido	2	12
Russian River Valley	0	0
Monte Rio**	2	12
<b>Central</b>		
Middle Rincon South*	4	32
Brush Creek*	2	15
Kawana Springs	6	45
Olivet Road	3	20
Taylor Mountain	14	74
Wright**	10	60
Bellevue**	9	56
West End*	9	56
Shiloh South	1	2
<b>Southern</b>		
McKinley	N/A	N/A
Downtown Cotati	6	45
West Cotati/Penngrrove	1	8
Fetters Springs/Agua Caliente West**	13	72
Petaluma Airport/Arroyo Park	3	25
Sonoma City South/Vineburg	0	1

\* Unincorporated island in City of Santa Rosa  
 \*\* Metropolitan Transportation Commission (MTC) Equity Priority Community  
 Source: CalEnviroScreen 4.0

## 9.5 County Initiatives to Support Civic Engagement

### **Office of Equity and Community Engagement, Language Access**

**Plans.** The purpose of the Sonoma County Five-Year Strategic Plan’s Racial Equity Pillar is to provide the County with a framework to institutionalize equity and address disparate impacts on people of color, both internally throughout the County organization and in the broader community.<sup>61</sup> The pillar offers 12 specific objectives across four primary goals to guide the County’s equity work during the five-year performance period. In alignment with the goals of this pillar, the Sonoma County Board of Supervisors created the Office of Equity (OoE) in August 2020, and in December 2022 the Board adopted the following mission for the Office of Equity:

“To work in authentic and collaborative partnerships within County government; with Black, Indigenous, and communities of color; and with community members who are disproportionately impacted by systemic inequities to:

- Recognize and disrupt systemic harm,
- Redesign structures and direct resources towards healing, liberation, and belonging,
- Build transparency and accountability in County institutions, policies, and culture.”

As part of the OoE’s goal to expand their efforts in addressing racial equity in the County, the office assembled the Sonoma County Equity Core Team in 2021. The Core Team is made up of 76 members representing 25 County departments. The Core Team

<sup>61</sup> Sonoma, County of. 2023. Racial Equity and Social Justice. <https://socostrategicplan.org/wp-content/uploads/2023/02/Racial-Equity-and-Social-Justice-status-updates-1-26-23.pdf> (accessed March 2023).

focuses on expanding the OoE’s capacity to work in alignment with the Racial Equity and Social Justice Pillar of the Five-Year Strategic Plan.<sup>62</sup> Since development of the Core Team, the OoE has established several milestone programs including the Racial Equity Learning Program and the Race Affinity Groups, and has incorporated additional foundational trainings to assist the OoE in understanding the impact and critical need for facilitated affinity spaces.

In September 2022, the Board of Supervisors approved consultant agreements to develop a language access plan, a community engagement plan, and policy recommendations for all County departments. Both plans are essential to ensuring the County effectively reaches and responds to the needs of communities that have been historically marginalized and underserved by government processes. Recent natural disasters and the COVID-19 public health emergency severely and disproportionately impacted minority communities and other marginalized communities. These crises have highlighted the need and responsibility for language access and community engagement policies and procedures to effectively communicate, reach, and engage all residents, especially in times of emergency.

**Access Sonoma Broadband Access Plan.** On June 8, 2021, the Sonoma County Board of Supervisors approved the Access Sonoma Broadband Action Plan. The purpose of the plan is to explore the creation of a publicly governed broadband entity. This entity could deploy, own, and manage broadband infrastructure within Sonoma County, reducing the cost barriers for broadband providers, and closing the regional digital divide.

<sup>62</sup> Sonoma, County of. 2023. Racial Equity and Social Justice. <https://socostrategicplan.org/wp-content/uploads/2023/02/Racial-Equity-and-Social-Justice-status-updates-1-26-23.pdf> (accessed June 2023).

## Key Takeaways

- Residents with disabilities, LBTQIA+ individuals, and communities of color have greater difficulty participating in the public decision-making process due to a lack of physical and technological accessibility, higher rates of homelessness, and lower educational attainment on average.
- **Broadband Access:** Sonoma County lacks a comprehensive, cohesive, and diverse broadband network, particularly in central, central west, and southern portions of the County. Underserved communities, mainly in rural areas, face limited access to fixed and mobile broadband internet due to high costs and inadequate infrastructure.
- **Age Demographics:** The older adult aged population (55 to 59 years old) represents the largest age group in Sonoma County in 2021. Roughly one in every five people is aged 65 or older.
- **Linguistic Isolation:** Approximately 11.26% of Sonoma County residences are considered linguistically isolated Spanish is the primary language spoken by persons with limited English proficiency, and significant portions of the population speak various "Asian and Pacific Islander Languages."