Existing Conditions Analysis: Health & Environmental Justice

October 21, 2021

CITY OF PETALUMA GENERAL PLAN

raimi + associates

Introduction

CITY OF
PETALUMA GENERAL PLAN

Introduction

- This technical analysis provides **an existing conditions analysis** of community health and environmental justice conditions in Petaluma, CA.
- The purpose of the analysis is to:
  - Fulfill the requirements of Senate Bill 1000 (Environmental Justice). This bill requires a technical analysis and the identification of “disadvantaged communities” in Petaluma. “Disadvantaged communities” are defined as geographic areas with a combination of socioeconomic hardship and adverse environmental or health conditions.
  - Provide detailed maps and charts on existing health and environmental justice conditions in Petaluma to identify both positive and negative conditions and/or outcomes.
  - Provide background information to support community engagement and goals, policies and programs to improve health conditions in Petaluma as part of the General Plan update process.
- Unlike the General Plan Update’s white papers, this technical analysis is distinct because of Senate Bill 1000’s requirements and the General Plan Team’s goal to present the information in a more user-friendly format.
- The main findings of this technical analysis were presented at the July meeting of the General Plan Advisory Committee. More information on this presentation can be found on the General Plan Update’s website.

Report Content

The report has the following sections:

- **Background.** Defines equity and environmental justice, shares a brief list of the City's equity programs, and provides background information on SB 1000.
- **Demographics.** Provides a snapshot of demographic and socio-economic conditions in Petaluma to set the stage for the disadvantaged communities (DAC) analysis.
- **Disadvantaged Community Screening Analysis**
  - **Method 1.** Shows the overall results of the CalEnviroScreen 4.0 tool for Petaluma.
  - **Method 2.** Provides a detailed analysis comparing low-income areas to individual pollution burden indicators.
  - **Method 3.** Reviews additional health risk factors and disproportionate burden from pollution or other hazards that can also lead to negative health effects, exposure, or environmental degradation.
  - **Summary of Results.** Summarizes the three DAC analysis methods and further contextualizes the identified potential DACs.
- **Policy Analysis.** Identifies existing city policies relating to health and environmental justice.
- **Next Steps.** Ends with a description of next steps in the Environmental Justice Element process.

Background

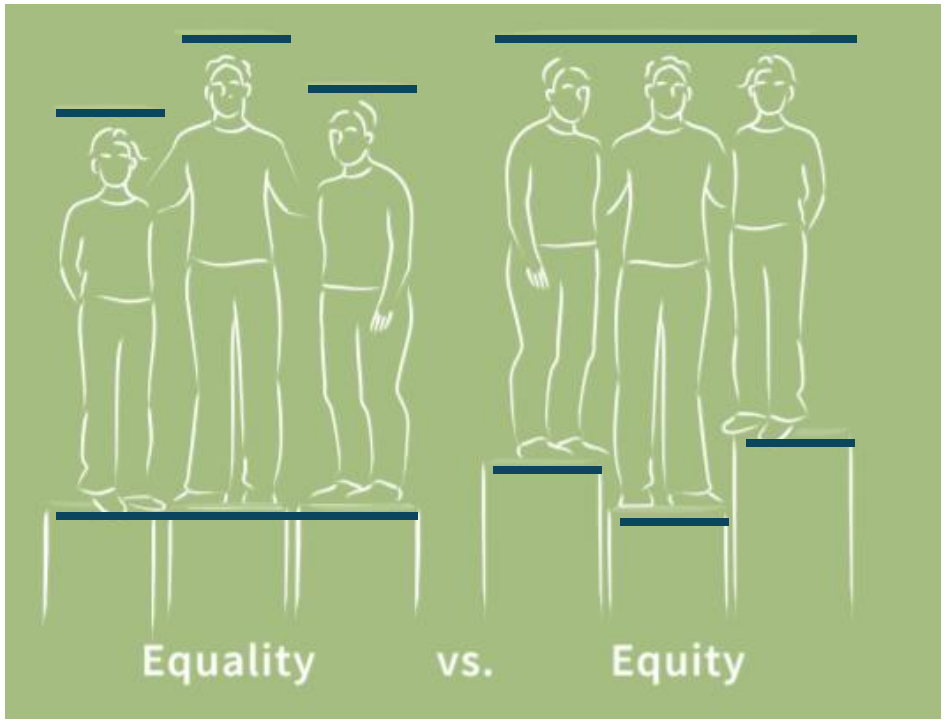
What are Equity and Environmental Justice?

Two important concepts to understand for this report are equity and environmental justice.

Equity is about ensuring that people have access to the same opportunities and have what they need to thrive and succeed. It is when demographic and environmental factors can no longer be used to predict health, social, or economic outcomes.

Although the City of Petaluma has many programs and policies to advance social equity (see next page), this analysis is specifically focused on the health equity impacts of the physical environment; otherwise known as environmental justice.

Environmental Justice (EJ) is defined in California's Government Code 65040.12(e) as "the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."



Petaluma's Equity Initiatives

The City of Petaluma is currently involved in advancing equity in a variety of ways. Some recent initiatives are:

- **Black Lives Matter art installation:** During the summer of 2020, the City's Public Art Committee facilitated the installation of a temporary collaborative street mural in support of Black Lives Matter.

- **Climate Emergency Framework:** Its purpose of this framework is to outline principles to guide the City's ongoing response to and discussion about the climate crisis and to guide and inform subsequent policies and implementation strategies.

- **Ad Hoc Community Advisory Committee (AHCAC):** The purpose of the AHCAC is to study and discuss issues contributing to community members not feeling safe or welcome in Petaluma and to develop recommendations to improve diversity, equity, and inclusion in our city.

- **City and Police Department Initiatives:** The City and Petaluma and its Police Department have several programs, and are developing more, to advance diversity, equity, and inclusion including a community policing model and a mobile crisis intervention team. Staff continue to receive training on de-escalation, implicit bias, and promoting diversity, equity, and inclusion. City is developing a community engagement model that will elevate new voices and bring new faces to public decision making as well as implementing protocols to improve diversity in the City organization.

- **General Plan Update:** The General Plan is the City's comprehensive long-term plan for Petaluma. One of the core topic areas for this General Plan Update is social and environmental equity.

Sources: City of Petaluma

Environmental Justice Element (SB 1000)

One of the most important environmental justice laws in California is Senate Bill 1000, otherwise known as the Planning for Healthy Communities Act.

Passed in 2016, SB 1000 requires jurisdictions with disadvantaged communities, which are defined on page 10 and are geographic areas, to develop an environmental justice (EJ) element with goals, policies, and actions that:

1. **Reduce unique and compounded health risks** in disadvantaged communities
2. **Promote civic engagement** in the public decision-making process
3. **Identify objectives and policies** that prioritize improvements **that address the needs of disadvantaged communities**

SB 1000 also specifies that five topic areas must be addressed in the EJ Element or through integrated EJ goals, policies, or actions in other chapters of the General Plan:

- **Reduce Pollution Exposure, including Air Quality Improvement**
- **Promote Public Facilities**
- **Promote Food Access**
- **Promote Safe and Sanitary Homes**
- **Promote Physical Activity**

SB 1000 Process

There are three steps to developing an Environmental Justice Element. **This report only focuses on Step 1: Analysis**.

Step 1

Analysis: Identify disadvantaged communities (DACs), including unique or compounded health risks

Step 2

Engagement: Engagement with the community, especially in DACs, on a minimum of five topic areas related to health and environmental justice

Step 3

Policy Development: Integration of goals, policies, and programs into the GPU to address DAC priorities

What is a “Disadvantaged Community”?

According to state law, a “disadvantaged community” (DAC) is defined as: “…**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.”

The main goal of this existing conditions analysis is to identify disadvantaged communities in Petaluma using the methods outlined in State guidance. Note that **DACs are geographically defined rather than defined by demographic characteristics**. The following pages explain the methodology used to determine whether a community can be classified as a DAC.

Sources: LA Times

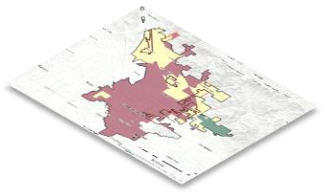
Low-Income + **High Pollution and Health Burden** = **Disadvantaged Community**

Disadvantaged Community Screening Analysis

- The state's Office of Planning and Research (OPR) recommends **a combination of three sequential methods** for the disadvantaged community screening analysis:
  - **Method 1:** Determines whether any census tracts have a score in the 75th percentile or higher on the CalEnviroScreen 4.0 index.
  - **Method 2:** Identifies any areas that are low-income, defined as having a median household income at or below the statewide median income or the county's area median income. Then, determines whether any of these identified low-income areas face a disproportionate pollution burden that can lead to negative health effects.
  - **Method 3:** Analyze community-specific data and examine additional health risk factors and disproportionate burden from pollution or other hazards that can also lead to negative health effects, exposure, or environmental degradation.
- **The geographic areas identified in <u>all three</u> methods are combined to identify the potential "disadvantaged communities" in a jurisdiction.** These must be verified through community engagement, such as with the GPAC and community meetings.
- The following graphic illustrates this methodology.
- This technical report provides detailed results for Petaluma using all three of these methods.

Disadvantaged Community Screening Analysis

Method 1
CalEnviroScreen 4.0



CalEnviroScreen score

Areas with top 25% CalEnviroScreen score

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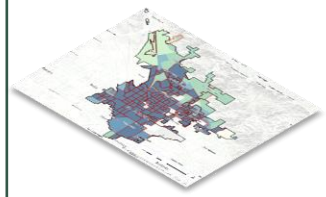
Method 2
Low-income communities with disproportionate pollution burden

Median Household Income

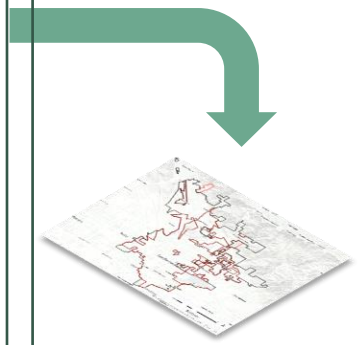


Areas at or below 80% of State and County AMI

PM2.5 percentile

Diesel percentile

Other pollution factors



Low Income Communities Disproportionately Affected by Environmental Pollution

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Method 3
Community-specific data and groundtruthing

Review Community-Specific Data

Verification through Community Engagement

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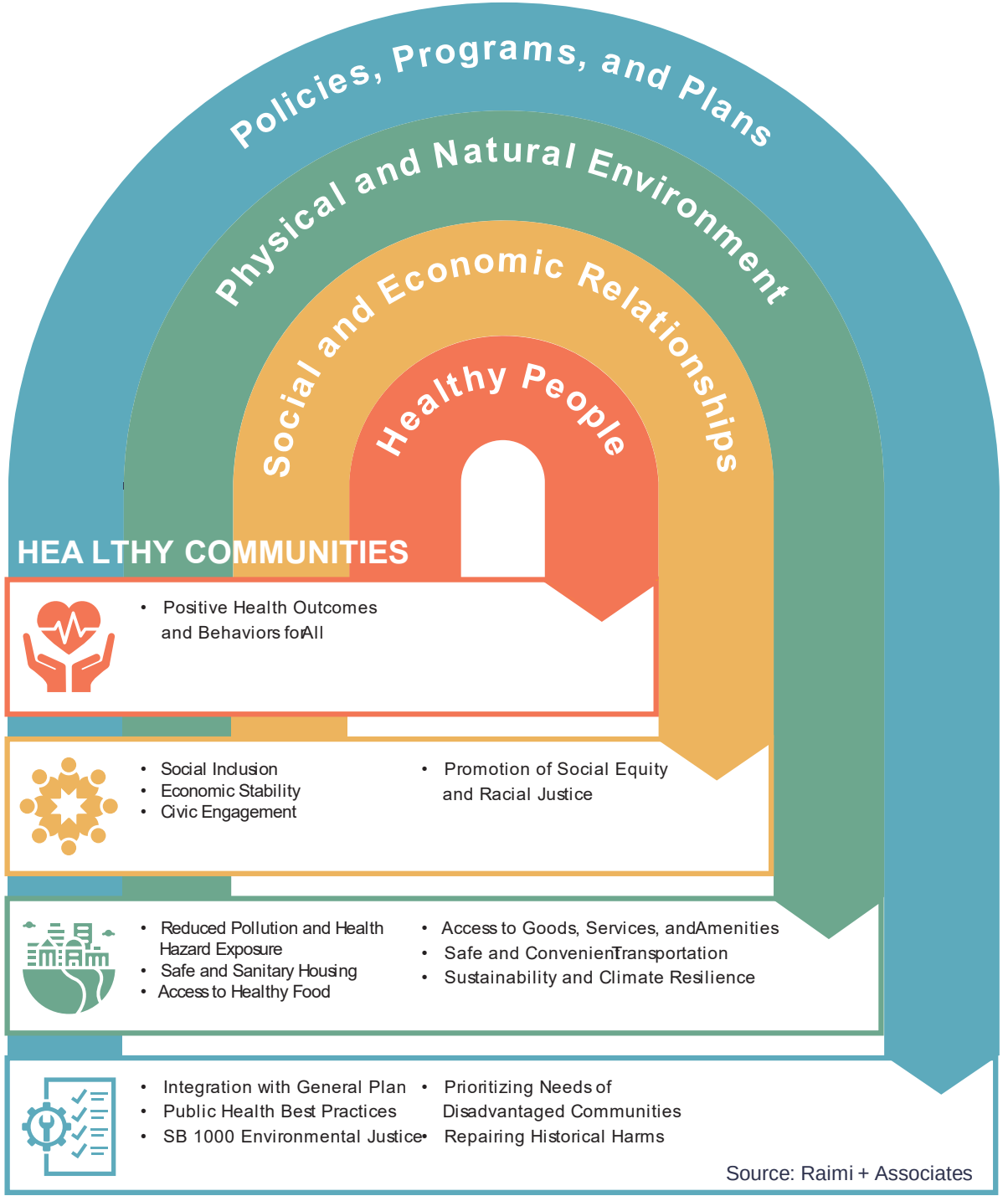
Identified Disadvantaged Communities (DACs)

Sources: Raimi + Associates.

Healthy Communities

- Environmental justice is part of a larger concept known as “healthy communities.” These are places that foster positive health outcomes for all who live, work, or play in them.
- Research in multiple fields over many years has demonstrated strong associations between population health and a range of factors impacted by city policy and design interventions in the physical environment.
- The figure on the right shows the Healthy Communities framework used by the General Plan Team.
- Each of the four components of healthy communities – healthy people; social and economic relationships, physical and natural environment; and policies, programs and plans – are described on the next page.



Healthy Communities Framework

- **Healthy People** – At the center of the framework is the evaluation of population health outcomes and behaviors overall and for different groups or geographic sub-areas within a community.
- **Social and Economic Relationships** – Social and economic conditions, which reflect the relationships of groups in society, are strong influencers of health outcomes. Examining social and economic relationships and health outcomes is critical to understanding conditions that may be contributing to inequities in health outcomes.
- **Physical and Natural Environment** – Physical and natural environment characteristics, including land uses, pollution sources, access to open space, safety of the transportation system, climate change, among others, impact an individual's health outcomes. The framework includes an analysis of select physical environment characteristics known to impact health outcomes.
- **Policies, Programs, and Plans** - Policies, programs, and plans reflect social and economic relationships and have guided the historical development of a city's physical environment. Because they are created by people, they can be revised to redirect a city's evolution. This context is established at the federal, state, county, and local level. As a city's "constitution" and blueprint for the future, the General Plan is an important local component of that context.

Demographics

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Section Overview

This section provides a brief overview of information from the Community Socioeconomic Profile, which is a separate report prepared for the General Plan update process that highlights demographic, economic, and housing characteristics and trends in the City of Petaluma.

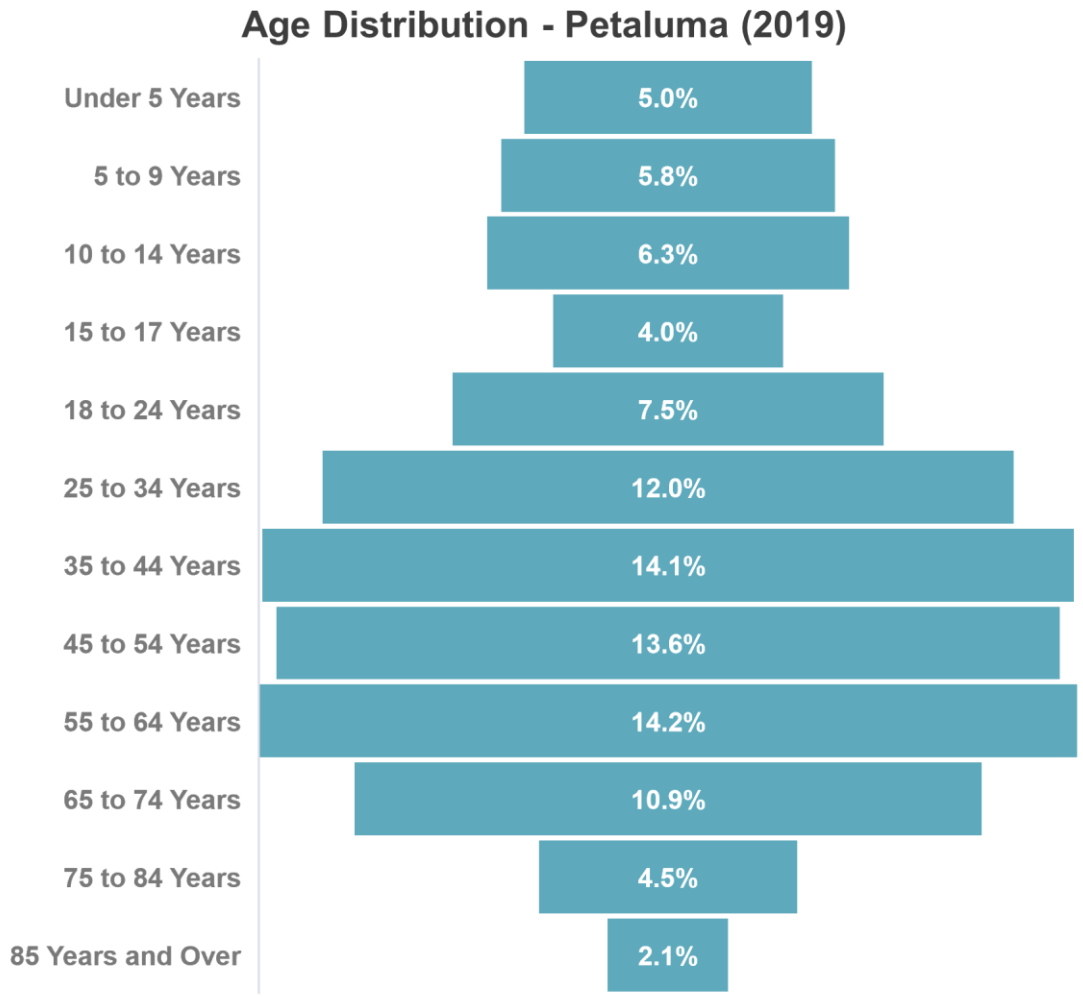
The following demographic indicators from the Community Socioeconomic Profile are presented in this report:

- Age
- Race and ethnicity
- Language and linguistic isolation
- Educational attainment
- Income

These indicators are included in the health and environmental justice report because research has found that each one individually has an impact on a person's health conditions and overall health outcome.

Age

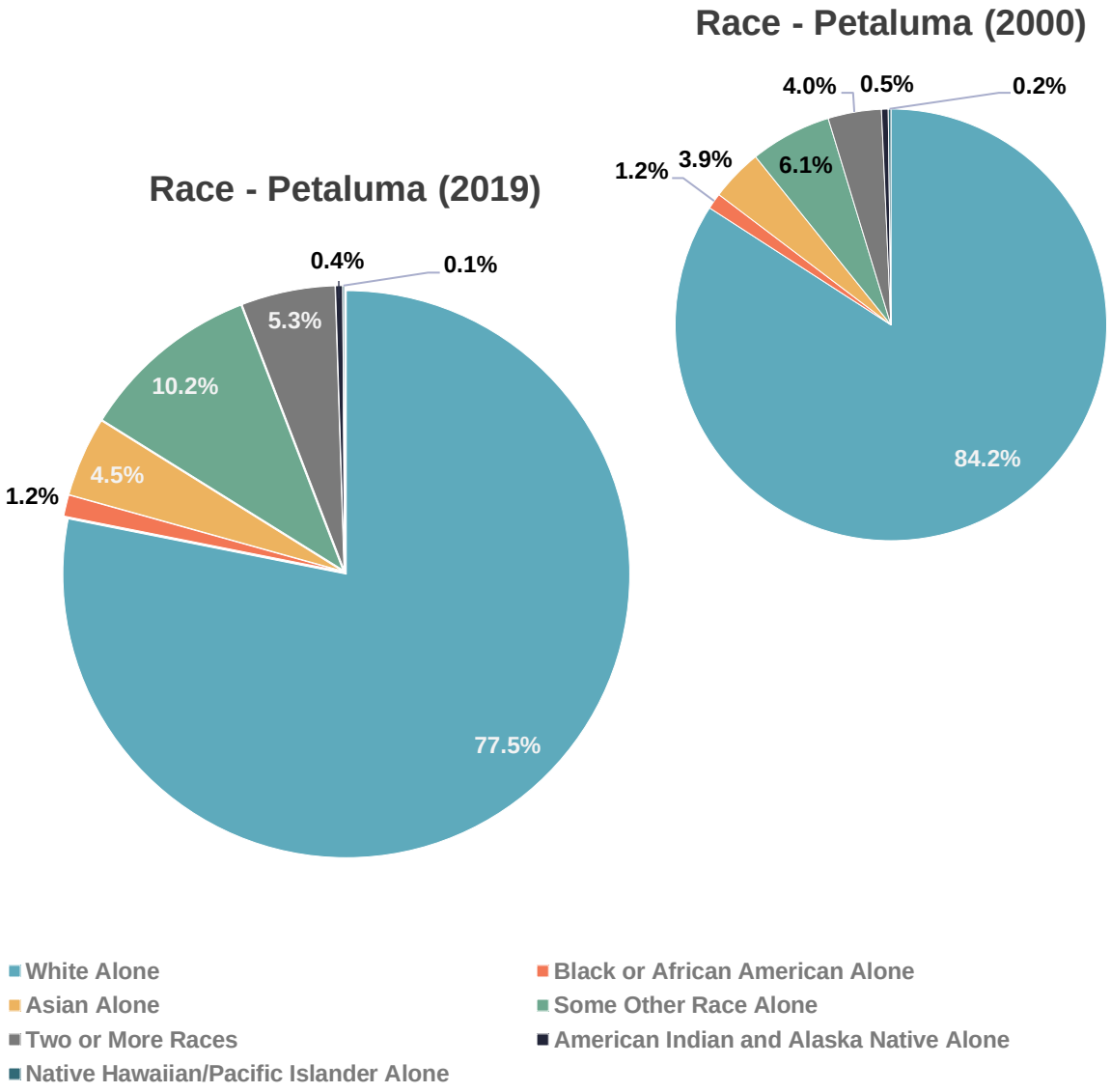
- **Petaluma's population is aging.** Since 2000, the share of population age 65 and over has increased by 57.7 percent, which is more than double the rate in California (26.1 percent) and higher than in Sonoma County (48.8 percent).
- At the same time, **the shares of middle-aged adults (35-54) and children under 18 in Petaluma have decreased substantially**. There was a 19.2 percent decrease of both children and middle-aged adults, compared to 15.8 and 9.3 percent statewide.



Source: U.S. Census, American Community Survey, 2015-2019

Race

- **Petaluma has become more racially diverse over the past two decades**. In 2000 the city's population was 84.2 percent White, compared with 77.5 percent in 2019.
- Despite the increase in racial diversity, the City remains predominantly White compared to California. The city currently has a higher percentage of White residents than Sonoma County (74.7 percent) or California (59.7).
- The proportion of the Asian population grew between 2000 and 2019, as did the population identifying as biracial or multi-racial. During that time period the percentage of Native American, Alaska Native and Pacific Islander residents decreased, while the percentage of Black residents remained consistent.

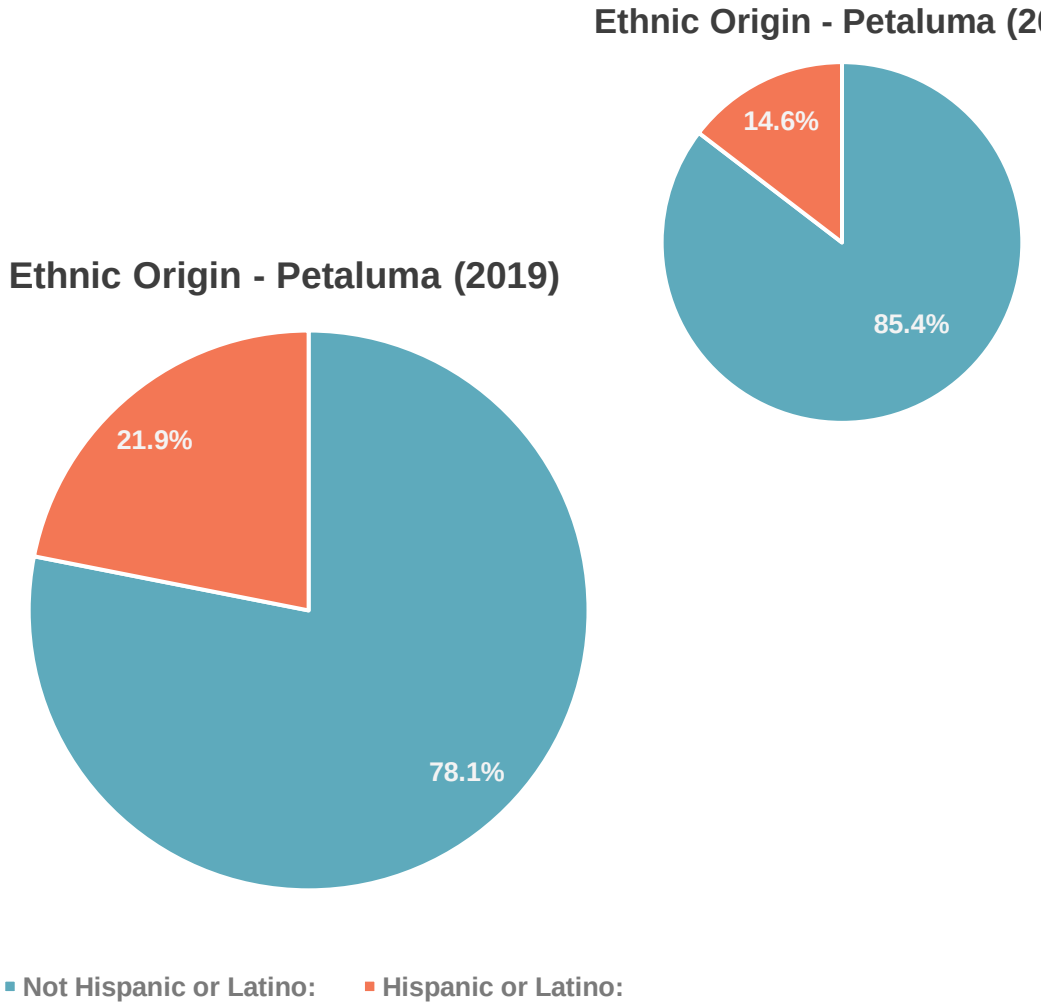


Source: U.S. Census, American Community Survey, 2015-2019

Ethnic Origin

- **Petaluma's population of residents of Hispanic or Latino ethnic origin* grew from 14.6 percent in 2000 to 21.9 percent in 2019**.
- Despite the increase in Petaluma's Hispanic population since 2000, the percentage of Hispanic/Latino residents of the city in 2019 (21.9 percent) is still lower than the countywide (26.7 percent) and statewide (39.0) percentages.

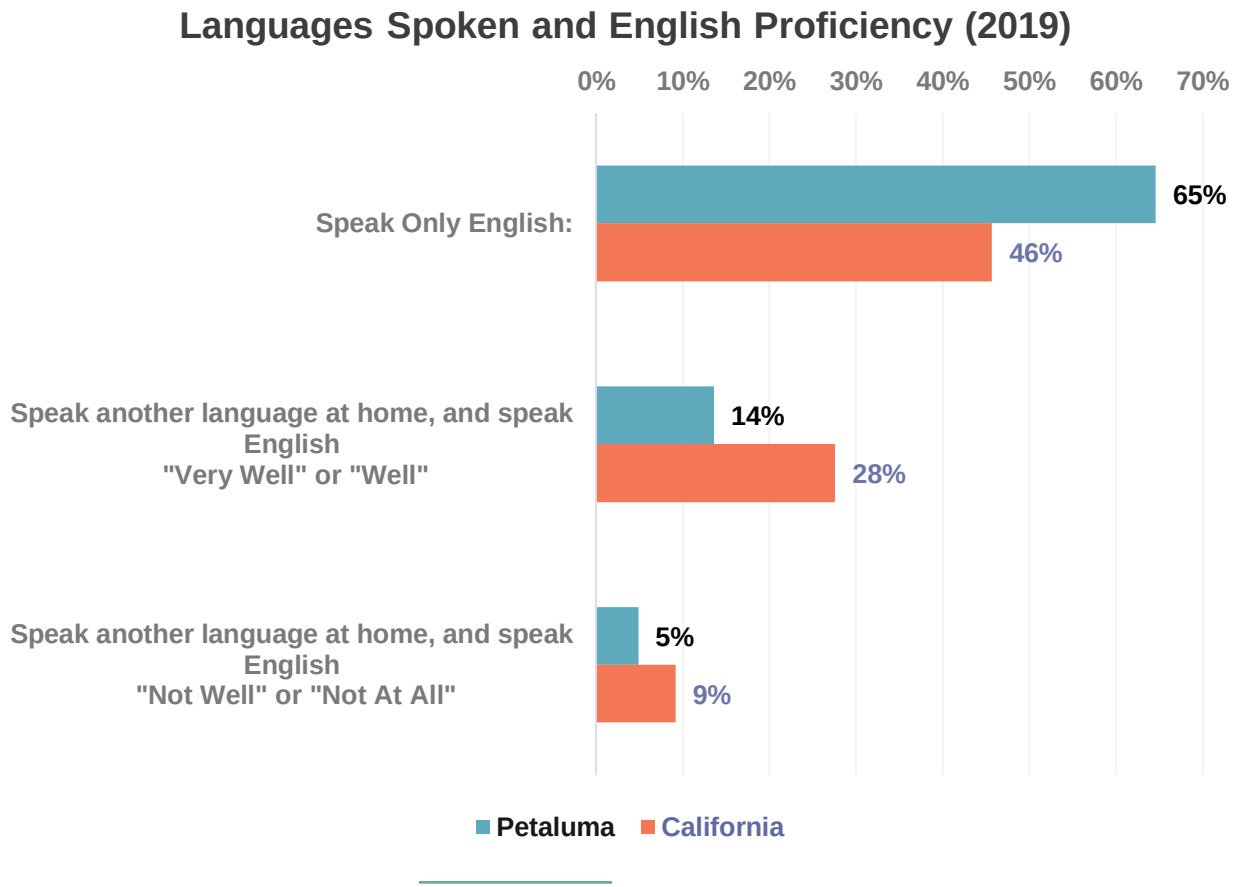
**The U.S. Census collects race data according to five defined racial groups: White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander. The Census also allows respondents to select a sixth category - Some Other Race – or to report more than one race. People who identify their origin as Hispanic or Latino may be of any race. The concept of race is distinct from the concept of Hispanic origin.*



Source: U.S. Census, American Community Survey, 2015-2019

Language and Linguistic Isolation

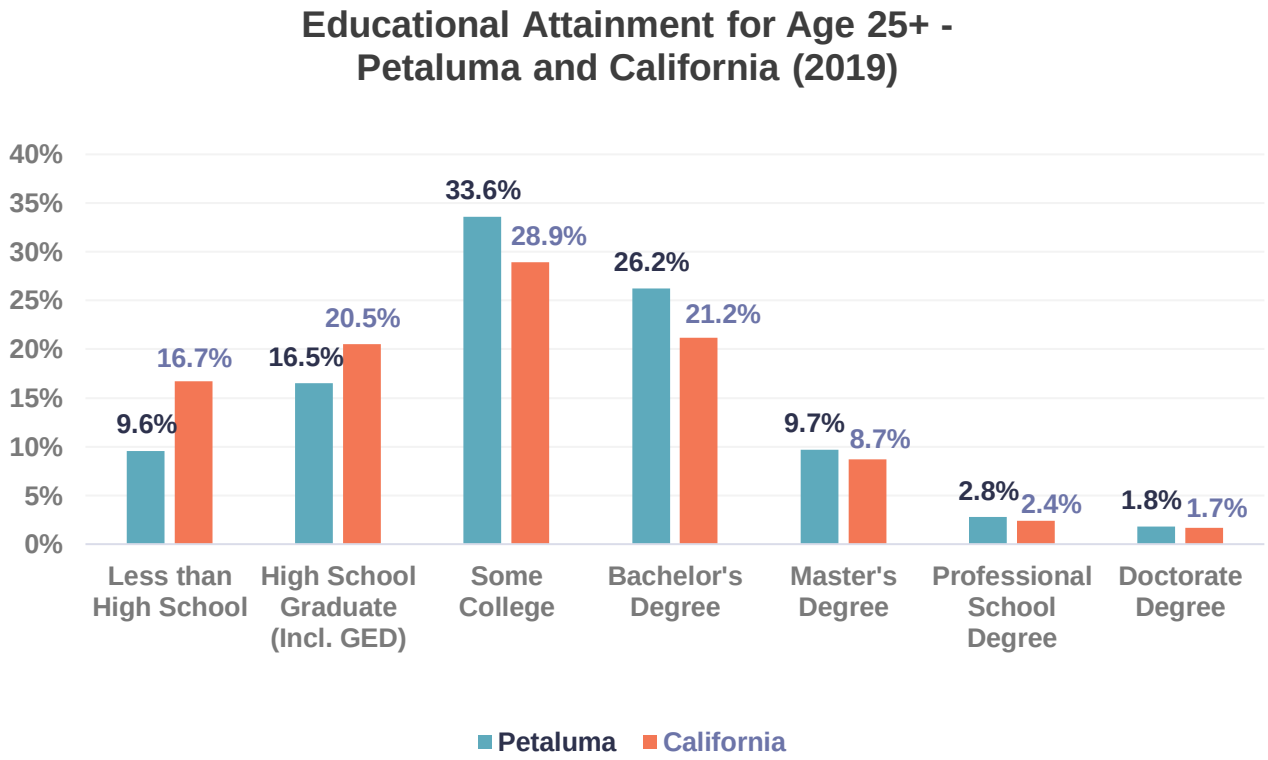
- **Petaluma has a substantially higher proportion of residents who only speak English**, and less “linguistic isolation” (fewer adults who don’t speak English well) compared to California as a whole.
- In 2019, 65 percent of Petaluma’s adult residents spoke only English. Of the 19 percent who spoke a language besides English at home, nearly three-quarters also spoke English ‘well’ or ‘very well.’
- **Only five percent of Petaluma’s adult population in 2019 spoke English ‘not well’ or ‘not at all’** (compared to 9 percent statewide). Most of these adults are Spanish speakers, with smaller percentages of adults who speak Chinese, Vietnamese, and Tagalog.



Source: U.S. Census, American Community Survey, 2015-2019

Educational Attainment

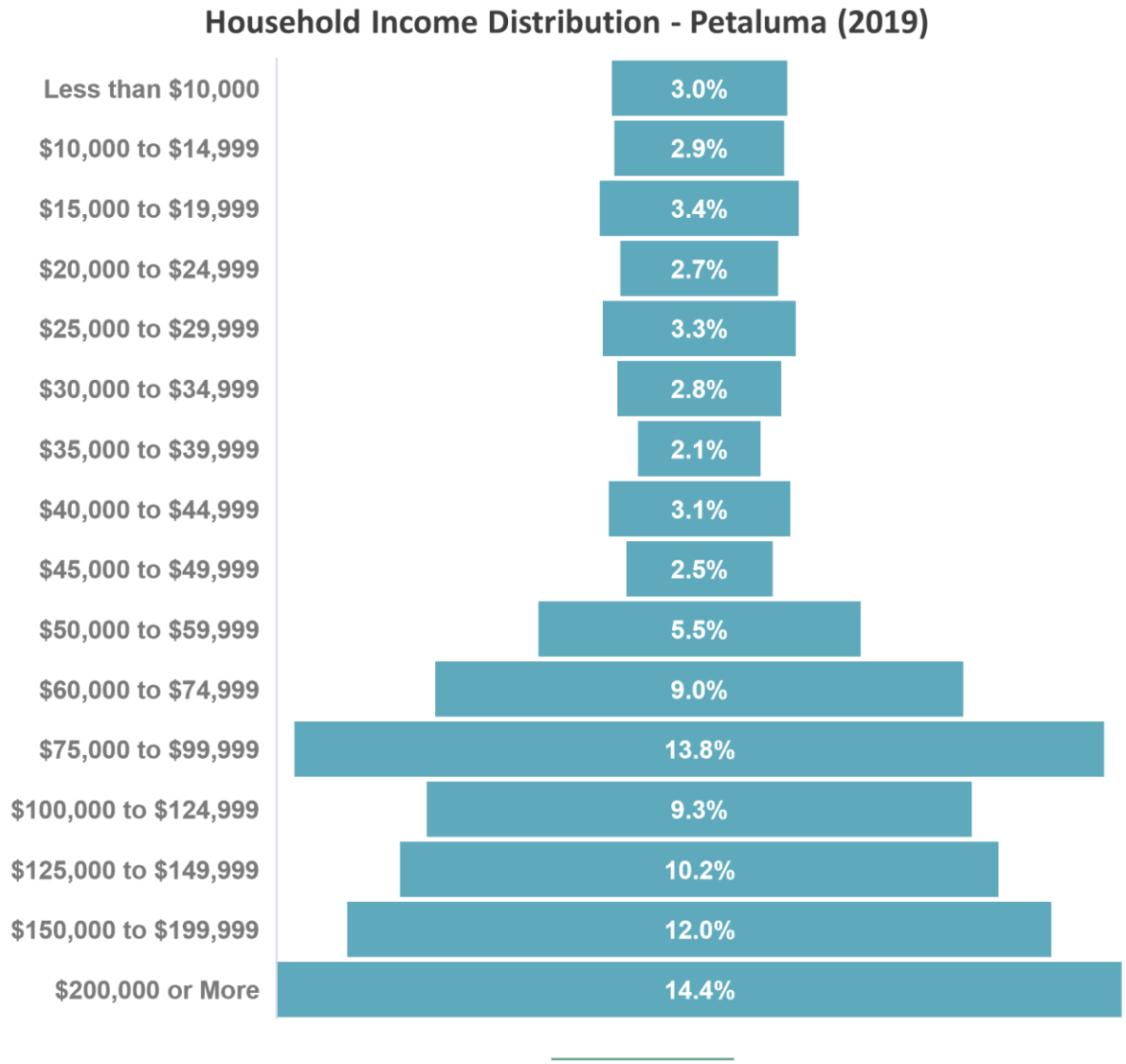
- **Petaluma's population has higher educational attainment than that of the state and county**, and education levels in Petaluma have increased over the past two decades.
- As of 2019, 26.2 percent of Petaluma residents over the age of 25 had earned a bachelor's degree, and 14.3 percent had earned an advanced degree (master's, professional degree, or doctorate).
- **Educational attainment levels in Petaluma also show a substantial increase as compared to 2000**, when 20.8 percent of residents age 25+ had a bachelor's degree and 9.3 percent had an advanced degree.
- Conversely, only 9.6 percent of residents have less than a high school degree compared to 16.7% at the state.



Source: U.S. Census, American Community Survey, 2015-2019

Income

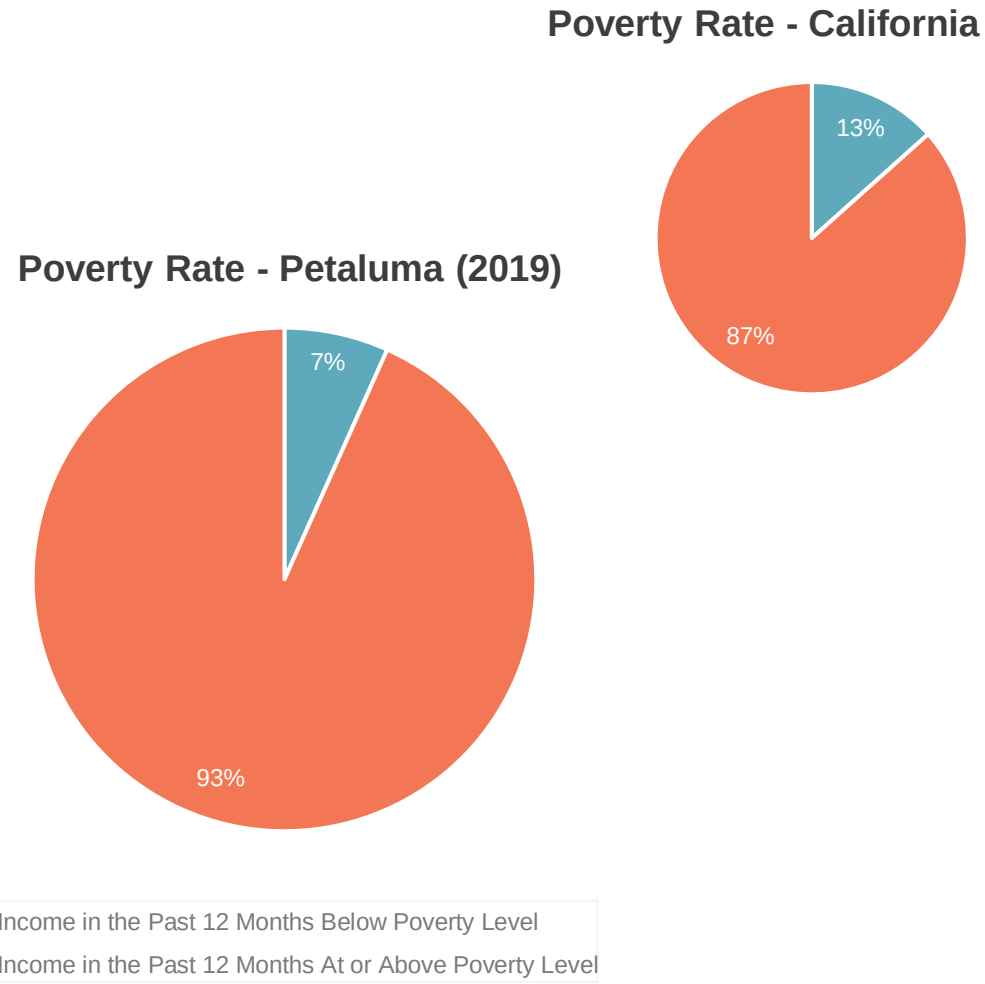
- **Petaluma is a relatively affluent community** with a median household income in 2019 of $91,528 – nearly 13 percent higher than the median household income for Sonoma County and 22 percent higher than that of California.
- Just under 60 percent of the households in Petaluma earned $75,000 or more per year, and more than 26 percent of households earned $150,000 or more per year.
- **There are, however, many households that have lower incomes as 20.2 percent of households have incomes below $40,000**.



Source: U.S. Census, American Community Survey, 2015-2019

Poverty Rate

- The percentage of the population living below the poverty level is lower in Petaluma than in Sonoma County or the state as a whole.
- In 2019, seven percent of Petaluma's population had income below the federal poverty level ($12,490 for an individual or $16,910 for a household of two persons), compared to nine percent of Sonoma County's population and 13 percent of California's population.
- The poverty rate in Petaluma increased slightly between 2000 and 2019 (from 6 to 7 percent), during the same time period that the poverty rate in California decreased from 14 to 13 percent.



Source: U.S. Census, American Community Survey, 2015-2019

Disadvantaged Community Screening Analysis

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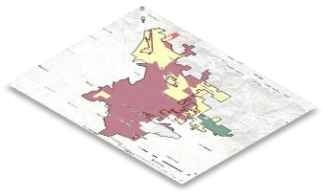
Section Overview

- As described previously in the Background section, the state's Office of Planning and Research (OPR) recommends **a combination of three sequential methods** for the disadvantaged community screening analysis:
  - **Method 1:** Determines whether any census tracts have a score in the 75th percentile or higher on the CalEnviroScreen 4.0 index.
  - **Method 2:** Identifies any areas that are low-income, defined as having a median household income at or below the statewide median income or the county's area median income. Then, determines whether any of these identified low-income areas face a disproportionate pollution burden that can lead to negative health effects.
  - **Method 3:** Analyzes community-specific data and examine additional health risk factors and disproportionate burden from pollution or other hazards that can also lead to negative health effects, exposure, or environmental degradation.
- This section provides detailed results for Petaluma using all three of these methods.
- **The geographic areas identified in <u>all three</u> methods are combined to identify the potential "disadvantaged communities" (DACs) in a jurisdiction.** These must be verified through community engagement, such as with the GPAC and community meetings.
- The following graphic illustrates this methodology.

Disadvantaged Community Screening Analysis

Method 1
CalEnviroScreen 4.0



CalEnviroScreen score

Areas with top 25% CalEnviroScreen score

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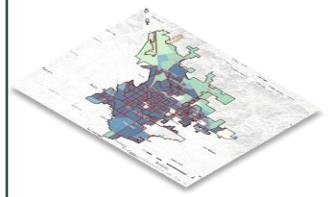
Method 2
Low-income communities with disproportionate pollution burden

Median Household Income



Areas at or below 80% of State and County AMI

PM2.5 percentile

Diesel percentile

Other pollution factors

Low Income Communities Disproportionately Affected by Environmental Pollution

+

Method 3
Community-specific data and groundtruthing

Review Community-Specific Data

Verification through Community Engagement

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Identified Disadvantaged Communities (DACs)

Sources: Raimi + Associates.

Method 1: CalEnviroScreen

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Section Overview

- This section summarizes the results of “method 1” of the disadvantaged communities (DAC) screening methodology, which uses the CalEnviroScreen (CES) 4.0 index. This method uses the CES 4.0 index to determine whether any census tracts have a score in the 75th percentile or higher. If any census tracts score in the 75th percentile or higher, the census tract will be considered a DAC.
- The following pages provide:
  - The specific data points/indicators that are part of CES 4.0 divided into two categories: 1) Pollution Burden and 2) Population Characteristics.
  - A map of Petaluma’s census tracts and the CES 4.0 percentile score of each for both categories (Pollution Burden and Population Characteristics) and the overall index.
- From Method 1, this analysis found the following conclusions:
  - There are no census tracts in Petaluma that score at or above the 75th percentile in CES 4.0.
  - Therefore, no DACs are identified from this method.
- *Note: The General Plan Team is using CES 4.0, which is currently in draft form. Like CES 4.0, CES 3.0 does not identify any census tracts as DACs.*

CalEnviroScreen

- The California Environmental Health Screening Tool (CalEnviroScreen or CES) was developed by the Office of Environmental Health Hazards Assessment (OEHHA) and California's Environmental Protection Agency (CalEPA) in 2010. CES is updated every few years to account for newly available datasets and advances in public health research. In 2021, OEHHA and CalEPA released version 4.0 of CES.
- It is an index of data from several verified sources of information on potential pollutant exposures and environmental effects at the census tract level. Potential pollution burden is calculated relative to all other census tracts in California and not on an absolute numeric basis. A graphic showing the indicators can be found on the next page.
- Although this tool is the main data source tool used for DAC screening analyses, it does have a few limitations:
  - It only measures potential and relative pollution exposure rather than actual and absolute exposure.
  - Certain pollution monitoring stations collect data at a regional level, as opposed to at the local or parcel levels. Thus, some indicators do not provide an accurate picture of pollution burden at the local level.
  - There is limited information on health outcomes because it was designed to prioritize effects, such as asthma, with known relationships to air quality pollutants.
- Therefore, this analysis needs additional input from community members and local data sources to ground-truth whether this statewide data is accurate for Petaluma.

CalEnviroScreen 4.0 Indicators

Pollution Burden × **Population Characteristics** = **CalEnviroScreen 4.0 Score**

Pollution Exposures

- Air Quality: Ozone
- Air Quality: Particulate Matter 2.5
- Children's Lead Risk from Housing
- Diesel Particulate Matter
- Drinking Water Contaminants
- Pesticide Use
- Toxic Releases from Facilities
- Traffic Impacts

Environmental Effects

- Cleanup Sites
- Groundwater Threats
- Hazardous Waste Generators and Facilities
- Impaired Water Bodies
- Solid Waste Sites and Facilities

Sensitive Populations

- Asthma
- Cardiovascular Disease
- Low Birth Weight Infants

Socioeconomic Factors

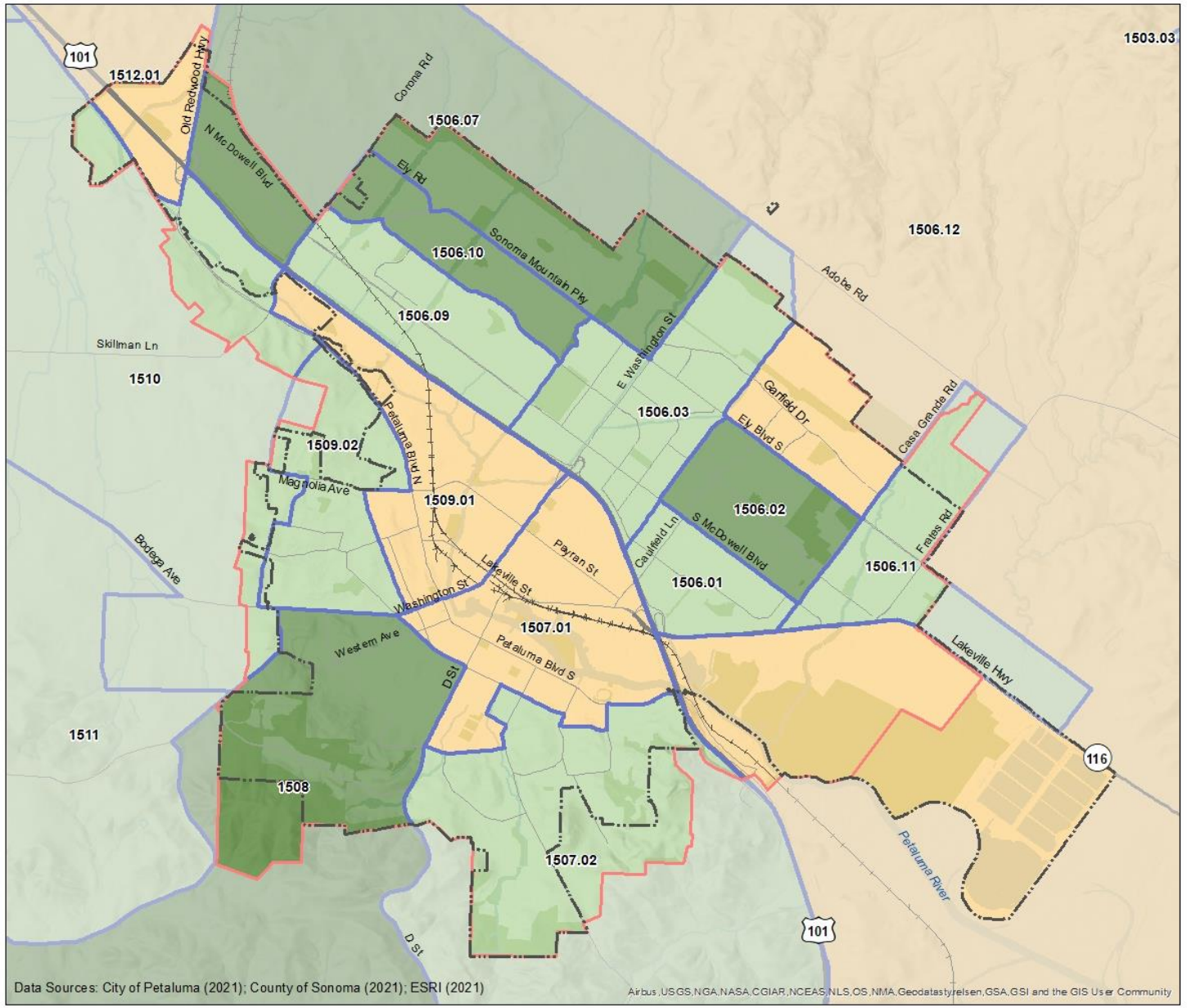
- Educational Attainment
- Housing Burden
- Linguistic Isolation
- Poverty
- Unemployment

Sources: Raimi + Associates. Graphic Elements adapted from California Office of Environmental Health Hazard Assessment CalEnviroScreen 4.0 Webpage and Report.

Pollution Burden Score

This collection of indicators measures the overall potential pollution burden relative to other census tracts in the state for 8 pollution exposures and 5 environmental effects indicators in CES 4.0.

No census tract has a pollution burden score at or above the 75th percentile.



Pollution Score

- < 25%
- 25% - 50%
- 50% - 75%
- > 75%

Note: The number labels within each census tract (such as 1507.01) refers to the census tract name attributed to it by the U.S. Census Bureau.

- Census Tracts
- City Limit
- Urban Growth Boundary / Sphere of Influence
- Water
- Parks / Open Space
- Railway
- Freeway
- Major Streets

0 0.25 0.5 1 Miles

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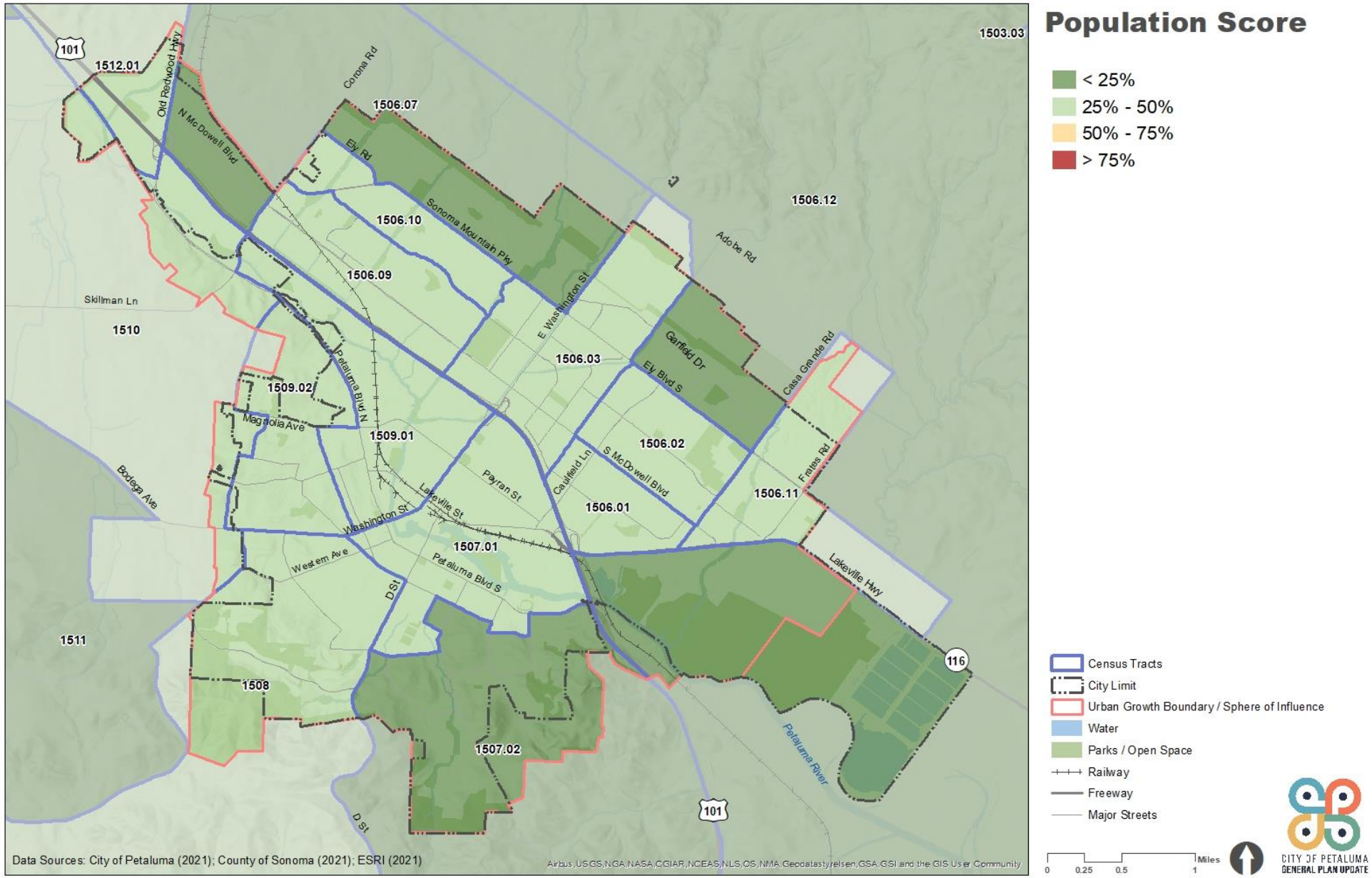
Sources: CalEnviroScreen, 2021

Population Characteristics Score

This collection of indicators measures overall population characteristics for 3 sensitive population indicators and 5 socioeconomic factors in CES 4.0.

As is shown on the map, no census tract in Petaluma has a population characteristics score at or above the 75th percentile.

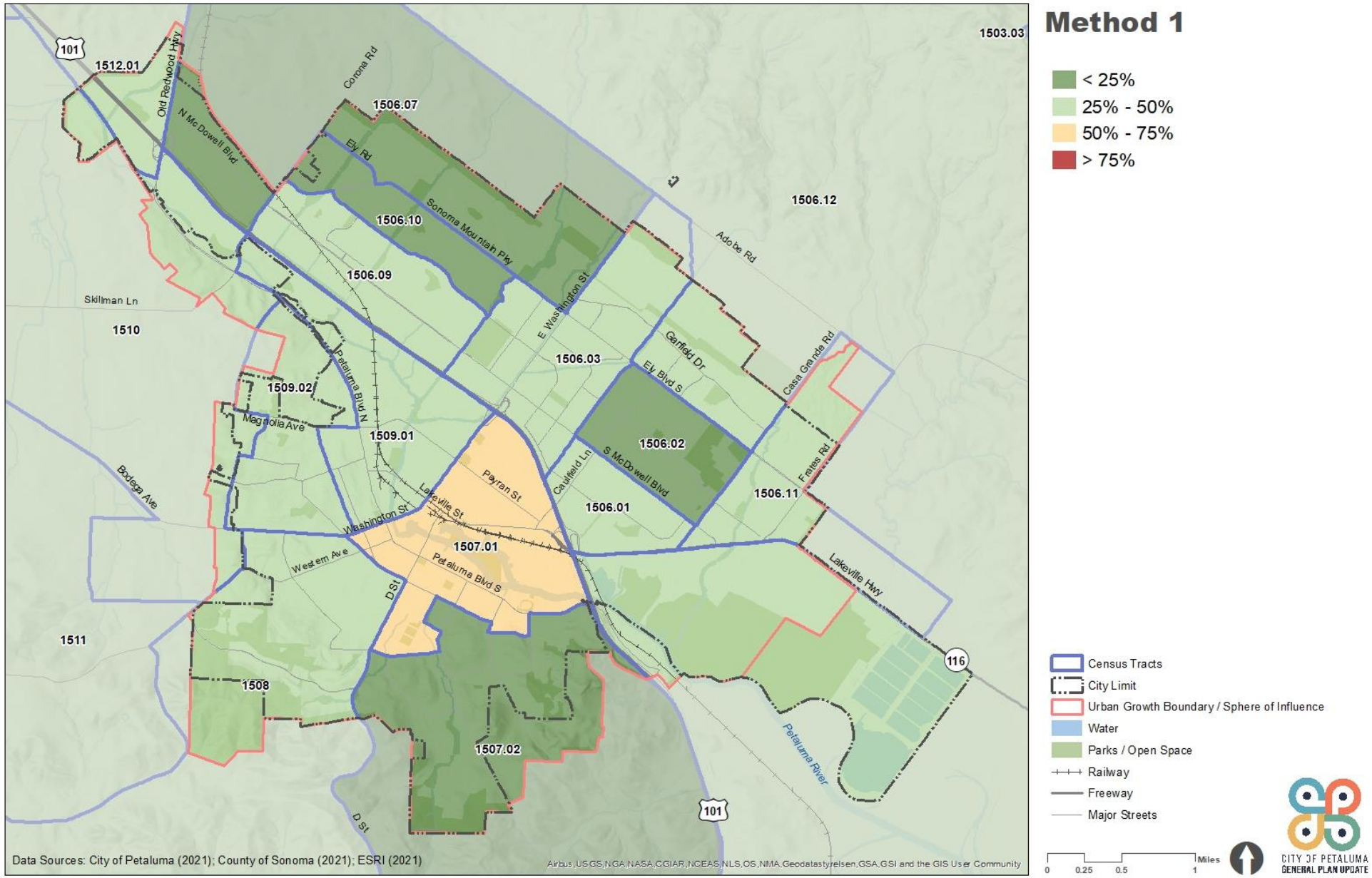


Sources: CalEnviroScreen, 2021

CalEnviroScreen 4.0 Index Results

This map presents the overall CES 4.0 scores by census tract. It combines the 13 pollution burden indicators and the 8 population characteristics indicators into an index of 21 indicators.

There are no census tracts in Petaluma with a CES 4.0 index score at or above the 75th percentile. Therefore, no potential DACs were identified through Method 1.



Sources: CalEnviroScreen, 2021

Method 2: Low-Income Areas with Pollution Burden

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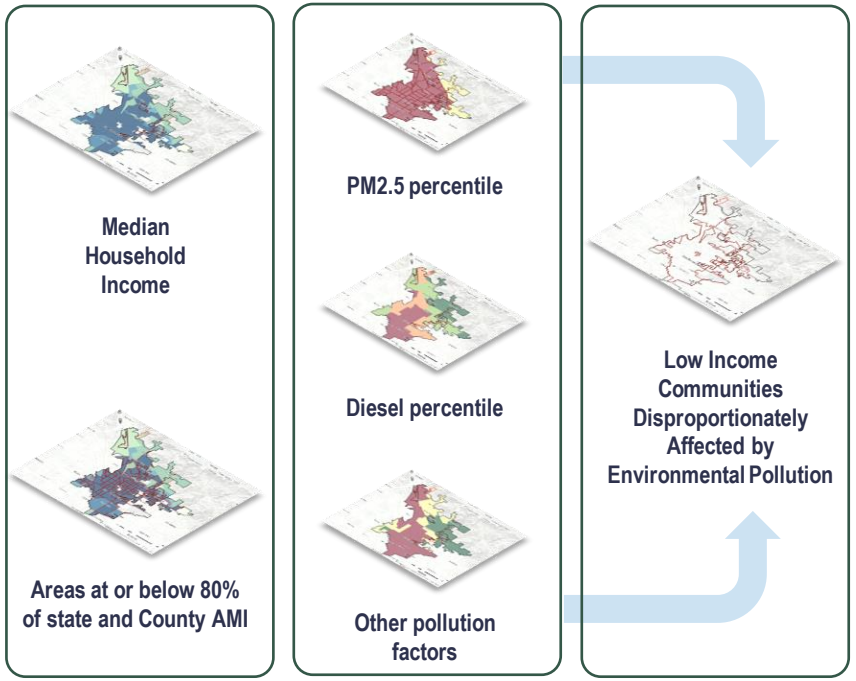
Section Overview

- This section provides an overview of Method 2 of the DAC analysis. This method uses a combination of income and individual indicators of pollution burden to determine whether any DACs are present in a community. Thus, it provides a more refined and nuanced approach than Method 1.
- Method 2 first identifies low-income areas, which are defined as having a median household income at or below the statewide median income or the county's area median income. Then, it determines whether any of these identified low-income areas face a disproportionate pollution burden that can lead to negative health effects. The pollution burden indicators are the individual indicators in the CES tool.
- Note that the analysis uses income data from both census tracts and block groups. While not required, block groups are used as an additional spatial layer of analysis in order to identify if there are smaller and more localized low-income areas within Petaluma.
- Conclusion:
  - Two (2) census tracts are low-income and ten (10) census block groups are low-income.
  - More than half of all low-income tracts and block groups have a pollution burden for at least 1 indicator. Therefore, several areas of Petaluma are identified as DACs through this method.

Method 2

Low-income communities with disproportionate pollution burden



Note: Method 2 is split into two geographic scales: census tract and block group. Pollution burden and most other data is only identified at the census tract scale. However, the block group analysis allows for a more refined identification of low-income areas, it is recommended that jurisdictions review this finer scale data if possible.

Low-Income Thresholds

- California's Department of Housing and Community Development (HCD) releases annual state income data to determine low-income thresholds at a statewide and county level.
- Since the Census Bureau's 2015-2019 American Community Survey is the most recently available income data, this analysis references the 2019 HCD State Income Limits.
- For the Method 2 analysis, **the General Plan Team is identifying census tracts and block groups as low-income if they are at or below 80% of Sonoma County's AMI, which is $74,640.**
- The County AMI is slightly higher than the 80% of Petaluma's AMI of $73,222 and much higher than the statewide median income of $65,760.

	California	Sonoma County	Petaluma
Area Median Income (AMI)	$82,200	$93,300	$91,528
80% of AMI	**$65,760**	**$74,640**	**$73,222**

2019 HCD State Income Limits

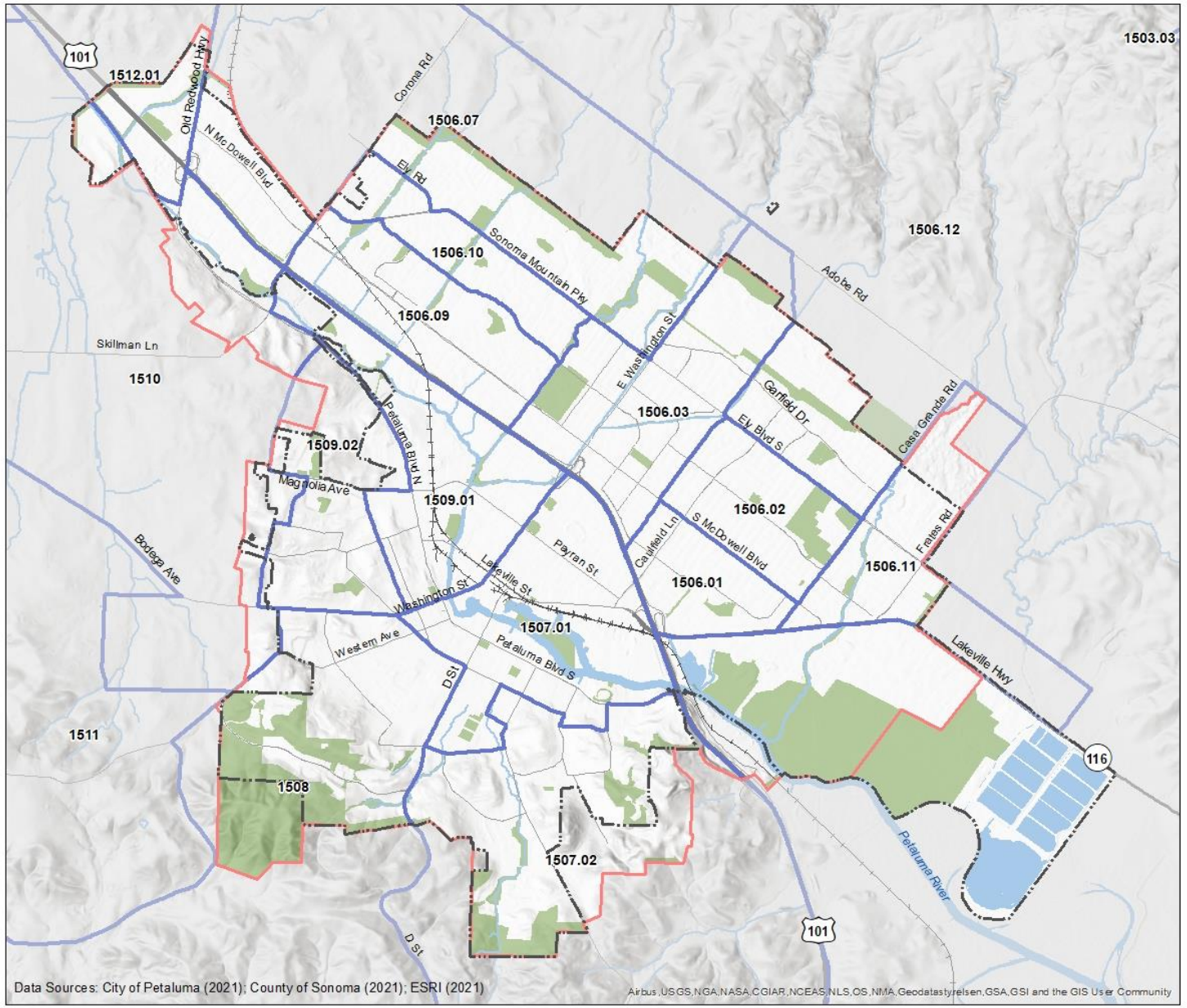
Sources: California HCD; ACS, 2015-2019

Petaluma Planning Area Census Tracts

Petaluma has 15 census tracts partially or completely within the Sphere of Influence (SOI).

The number labels within each census tract (such as 1507.01) refers to the census tract name attributed to it by the U.S. Census Bureau. All maps in this report include the census tract names.

Five tracts are partially within the SOI and with most of their residents living within the City: 1506.07, 1506.12, 1507.02, 1508, and 1509.02. Two tracts are partially within the SOI, but with most residents living outside the City: 1510 and 1512.01.



Census Tracts

Census Tracts

Census Tracts
City Limit
Urban Growth Boundary / Sphere of Influence
Water
Parks / Open Space
Railway
Freeway
Major Streets

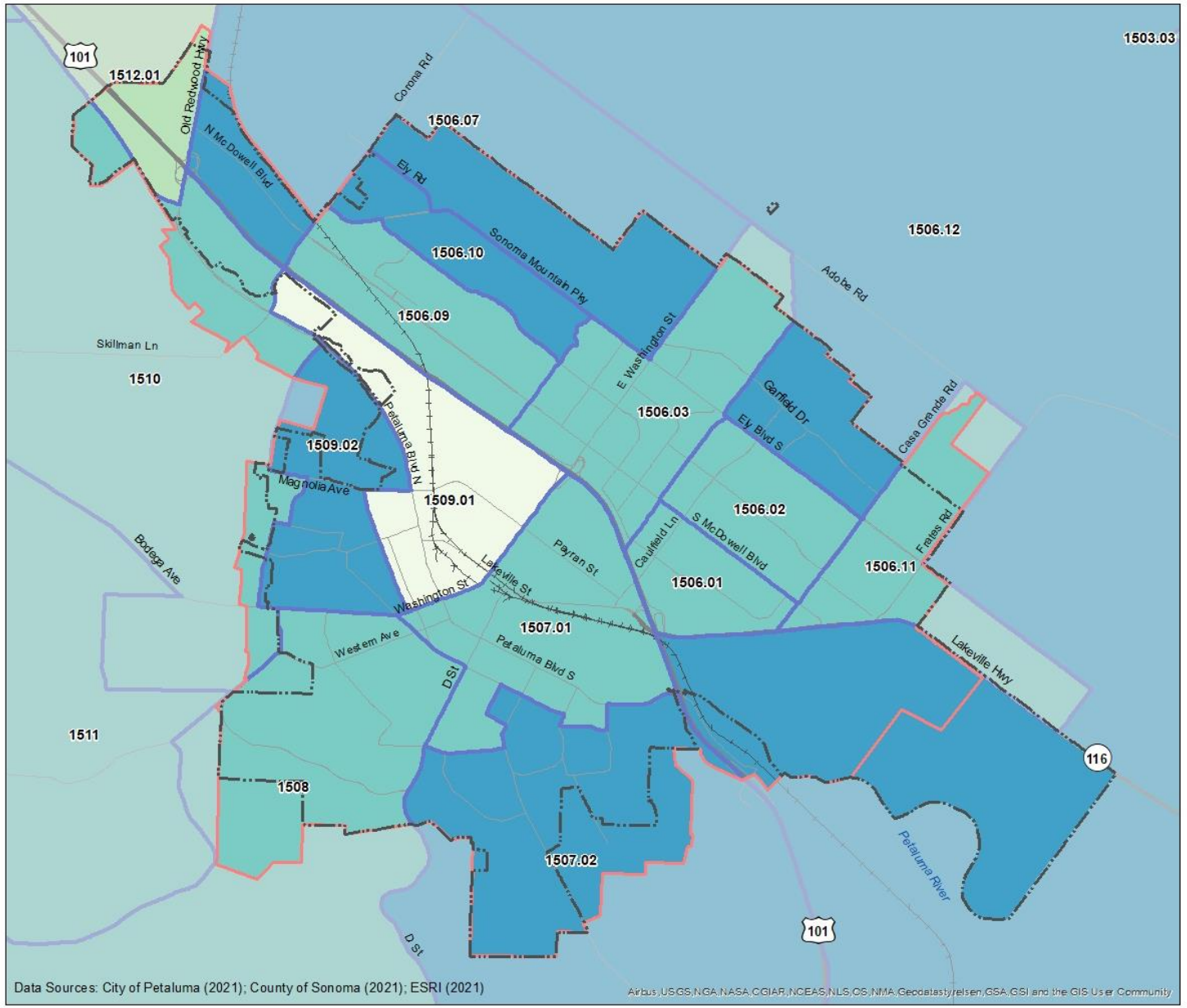
0 0.25 0.5 1 Miles

CITY OF PETALUMA
GENERAL PLAN UPDATE

Median Household Income (Census Tracts)

Two census tracts are below 80% of the county's AMI of $74,640.

The two tracts are: 1509.01 (median income of $64,772) and 1512.01 (median income of $72,985).



Median Income

- 50059 - 65760
- 65761 - 74640
- 74641 - 100000
- 100001 - 125000
- 125001 - 145147

Note: The median income distribution is broken up into categories that reflect the low-income thresholds described earlier.

- Census Tracts
- City Limit
- Urban Growth Boundary / Sphere of Influence
- Water
- Parks / Open Space
- Railway
- Freeway
- Major Streets

0 0.25 0.5 1 Miles

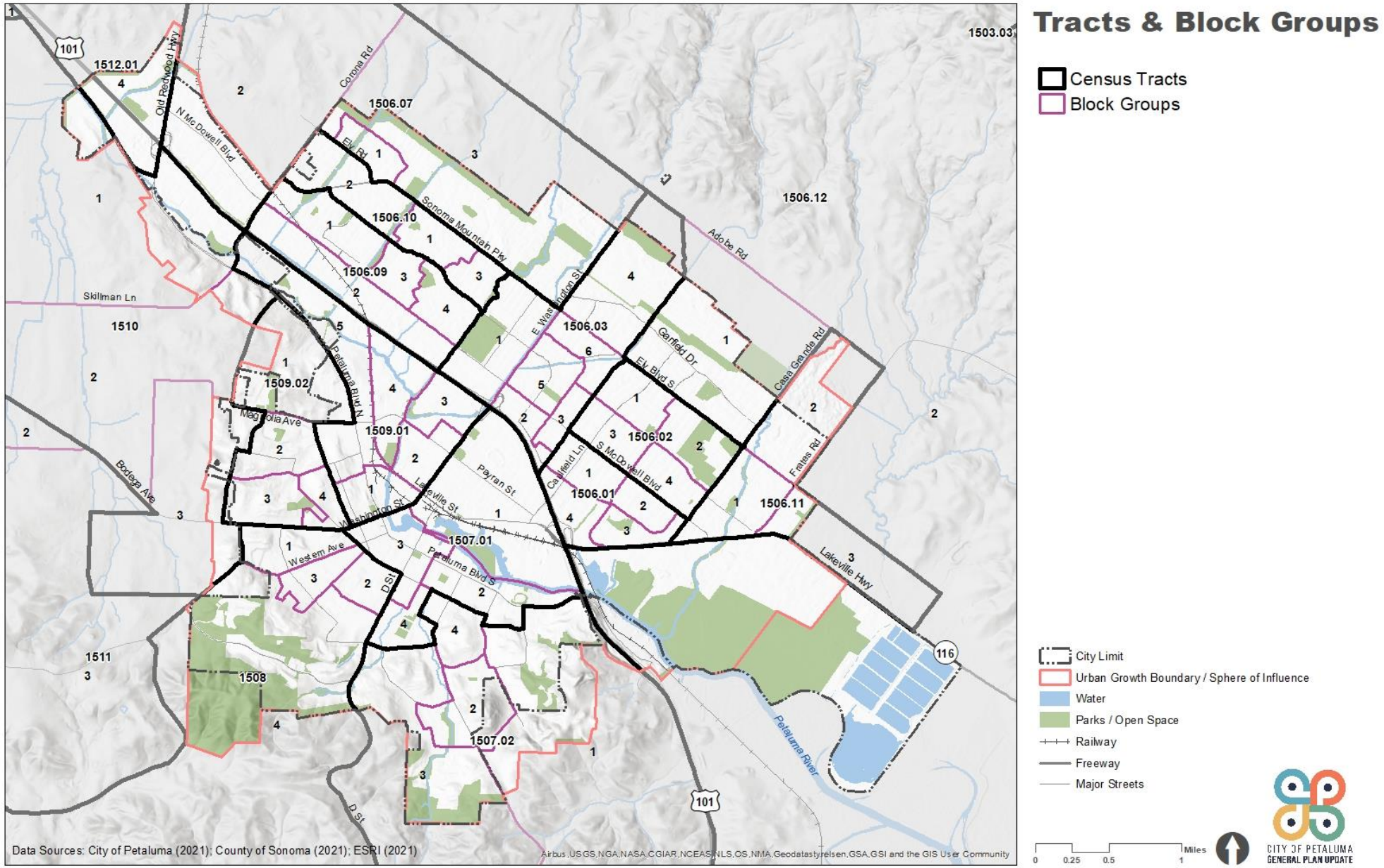
CITY OF PETALUMA GENERAL PLAN UPDATE

Sources: ACS, 2015-2019

Petaluma Planning Area Census Block Groups

Petaluma has 54 block groups completely or partially within the Sphere of Influence. Note that each census tract has multiple block groups within its boundaries.

This map includes the block group names within each census tract (i.e., 1, 2, 3, etc.) attributed to it by the U.S. Census Bureau. For ease of reading, all maps within this report do not include the block group names as labels.



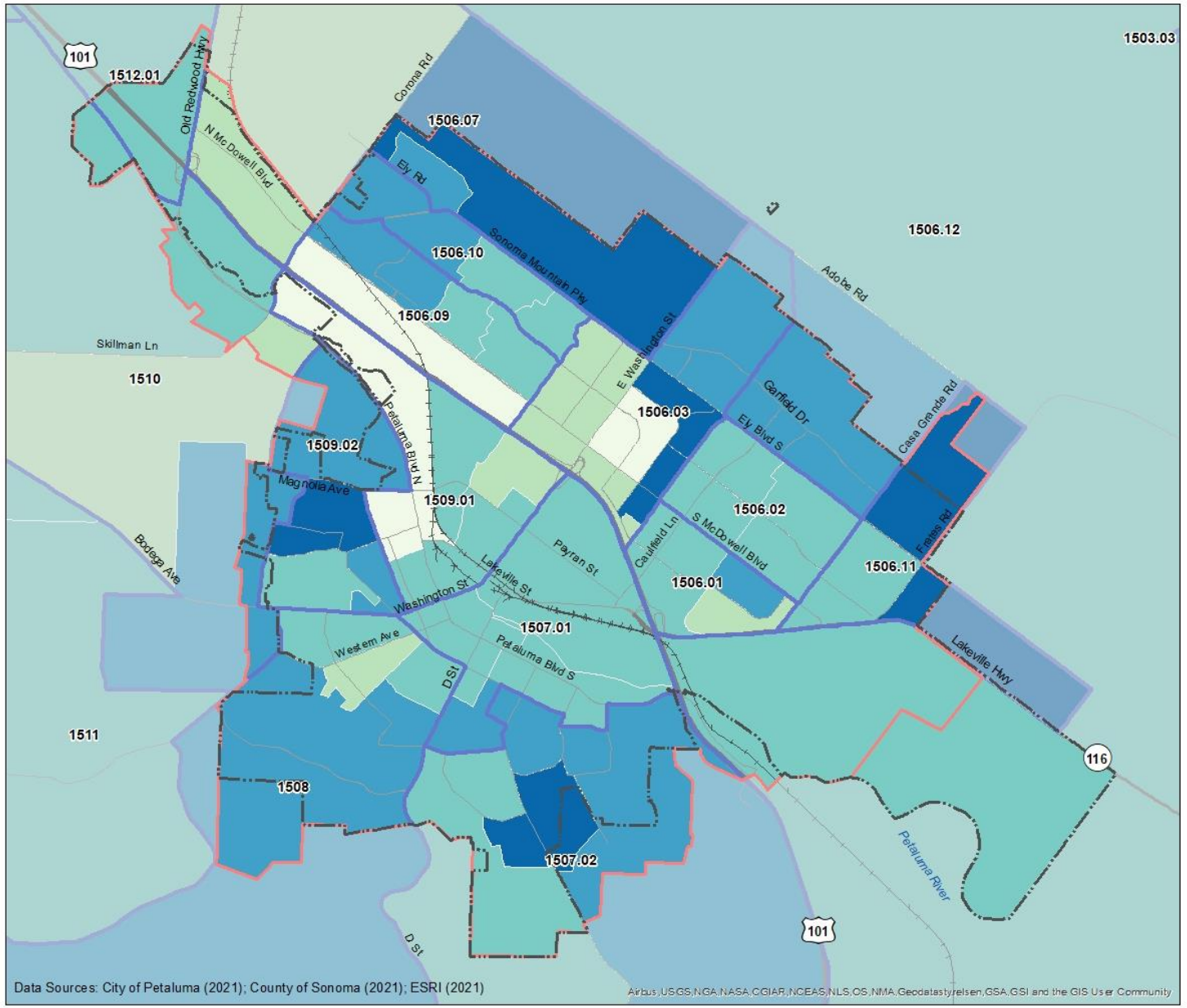
Median Household Income (Block Groups)

Ten (10) block groups were below 80% of the county's AMI of $74,640. Therefore, a total of 10 block groups were identified as low income.

The median income for each of these ten block groups are listed below:

- 1506.01.3: $69,886
- 1506.03.1: $67,617
- 1506.03.2: $66,278
- 1506.03.5: $63,750
- 1506.07.2: $66,932
- 1506.09.2: $39,236
- 1508.00.3: $73,784
- 1509.01.3: $69,571
- 1509.01.5: $33,214
- 1510.00.2: $72,500

Sources: ACS, 2015-2019



Median Income

- 33214 - 65760
- 65761 - 74640
- 74641 - 100000
- 100001 - 125000
- 125001 - 199844

Note: The median income distribution is broken up into categories that reflect the low-income thresholds.

- Census Tracts
- City Limit
- Urban Growth Boundary / Sphere of Influence
- Water
- Parks / Open Space
- Railway
- Freeway
- Major Streets

0 0.25 0.5 1 Miles

CITY OF PETALUMA
GENERAL PLAN UPDATE

A Note on Census Tract 1512.01

- As mentioned on page 37, only a small portion of Tract 1512.01 is within Petaluma's boundaries and sphere of influence. This specific census tract is geographically large and includes parts of nearby Cotati, Penngrove, and Rohnert Park.
- As shown on page 39, only one its block groups (Block Group 4) is partially within Petaluma.
- Although Tract 1512.01 is considered low-income overall, Block Group 4 within Petaluma is not considered low-income per the County's AMI (see Table to the right).
- Since Block Group 4 is the only portion of Tract 1512.01 within Petaluma, the General Plan Team did not include Tract 1512.01 as one of the identified low-income areas in Petaluma (see next page).

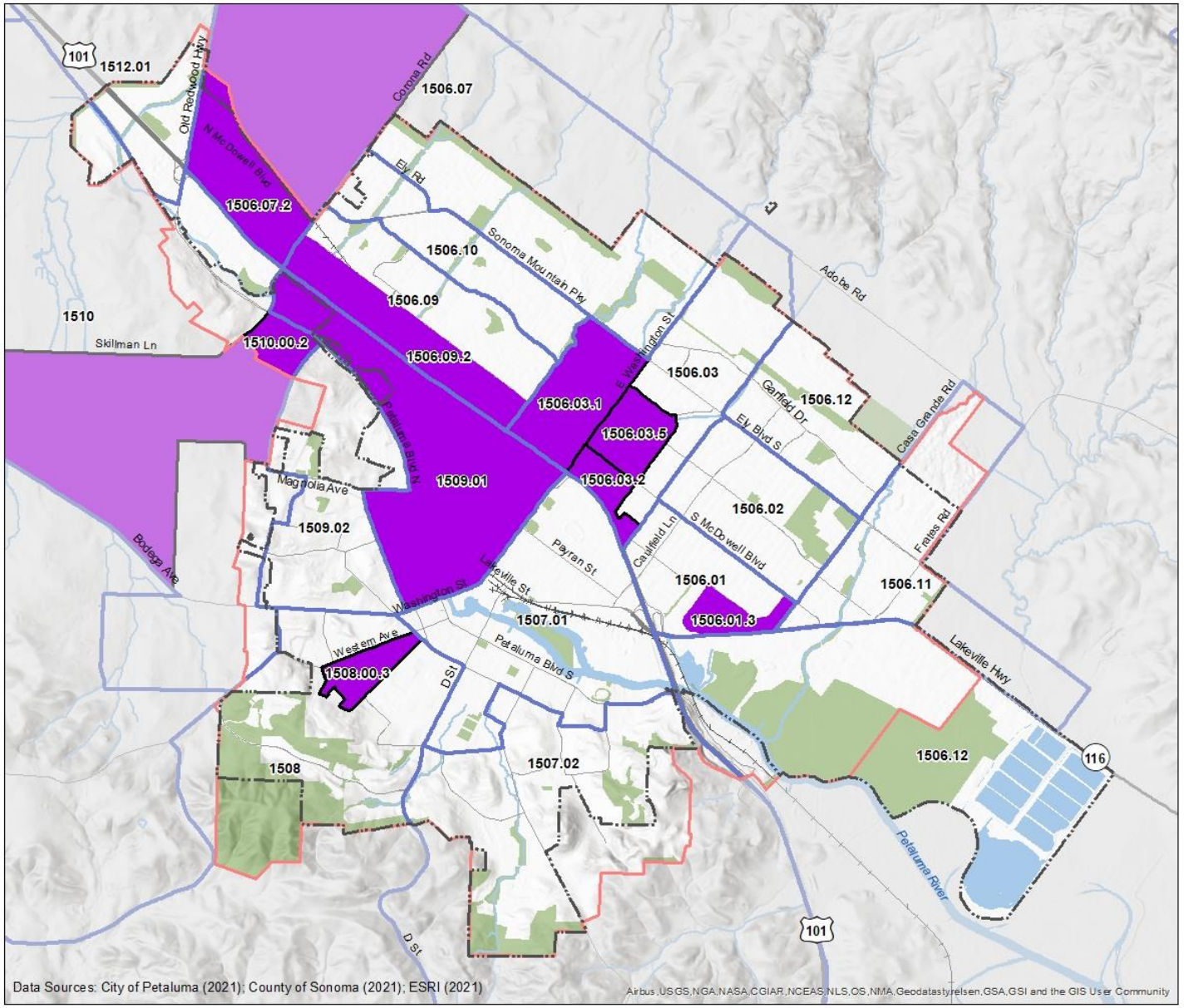
	Median Household Income	80% of Sonoma County's AMI	Low-Income Area?
Tract 1512.01	$72,985	$74,640	Yes
1512.01, Block Group 4	$78,056	$74,640	No

Low Income Areas in Petaluma

This map shows the combined results of the low-income analysis. The dark purple areas indicate the census tracts and block groups that are identified as low income. They include:

- Tract 1509.01
- 1506.01, Block Group 3
- 1506.03, Block Group 1
- 1506.03, Block Group 2
- 1506.03, Block Group 5
- 1506.07, Block Group 2
- 1506.09, Block Group 2
- 1508.00, Block Group 3
- 1510.00, Block Group 2

The next step is to identify which low-income areas also have unique or compounded pollution burdens.



Low-Income Areas

Low-Income Areas

Note: All census tracts are labeled on the map. Only block groups that are also low-income areas are labeled on the map.

Census Tracts
City Limit
Urban Growth Boundary / Sphere of Influence
Water
Parks / Open Space
Railway
Freeway
Major Streets

0 0.25 0.5 1 Miles

CITY OF PETALUMA GENERAL PLAN UPDATE

Identifying Low-Income Areas with Pollution Burdens

- This table provide a high-level snapshot of the pollution burden of each census tract. *(Note that pollution burden data is provided at the census tract level only.)*
- All of Petaluma's census tracts were individually compared to each of the Pollution Burden indicators found within CalEnviroScreen 4.0. Pollution Burden scores at or above the 75th percentile of all census tracts in the state were considered having a disproportionate burden and are shown in **RED** shading in the table. Shading in ORANGE represents indicators in the 50th to 74th percentile. The cells with the two shades of green are below the 50th percentile
- The 2 low-income census tracts are identified with **BLUE** shading (4th column). The 10 low-income block groups are also identified with **BLUE** shading (5th column).
- Some census tracts are not low-income areas but have high pollution burden. They are dotted in **BLACK**.
- Some census tracts have low-income block groups within them but do not have high pollution burden. They are dotted in **PURPLE**.
- The next two slides provide a zoomed-in version of this table.

Sources: ACS, 2015-2019; CalEnviroScreen, 2021

			Median Household Income		Income Thresholds		Pollution Exposure and Environmental Effects Indicators (CalEnviroscreen 4.0)															
Low-Income Area	Census Tract	Block Group	Med. Hhd. Income (Census Tract)	Med. Hhd. Income (Block Group)	80% of County AMI	80% of State AMI	CalEnviroScreen Index Pct.	Ozone Pct.	PM2.5 Pct.	Diesel Pct.	Pesticides Use Pct.	Toxic Release Pct.	Traffic Impacts Pct.	Drinking Water Contaminants Pct.	Children's Lead Risk Pct.	Cleanup Sites Pct.	Groundwater Threats Pct.	Hazardous Waste Pct.	Impaired Waterbodies Pct.	Solid Waste Sites Pct.	Pollution Burden Pct.
Y	1506.01	1	$90,114	$99,500	$74,640	$65,760	31	8	16	74	0	30	78	15	40	55	65	0	52	59	39
		2		$101,333																	
		3		$69,886																	
		4		$85,625																	
N	1506.02	1	$90,556	$93,214	$74,640	$65,760	11	9	14	31	0	31	50	47	27	0	38	0	0	2	4
		2		$88,750																	
		3		$88,804																	
		4		$95,139																	
Y	1506.03	1	$77,690	$67,617	$74,640	$65,760	35	8	14	50	49	31	71	50	42	25	59	0	52	0	34
		2		$66,278																	
		3		$127,763																	
		4		$106,000																	
		5		$63,750																	
		6		$137,743																	
Y	1506.07	1	$124,643	$122,361	$74,640	$65,760	11	8	12	14	26	26	50	52	10	0	29	47	52	0	11
		2		$66,932																	
		3		$131,351																	
Y	1506.09	1	$78,160	$115,337	$74,640	$65,760	35	8	14	83	42	28	78	49	9	19	31	16	52	75	44
		2		$39,236																	
		3		$83,565																	
		4		$89,375																	
N	1506.10	1	$111,429	$98,667	$74,640	$65,760	17	8	13	50	46	28	12	50	13	5	10	0	52	20	9
		2		$118,561																	
		3		$92,375																	
N	1506.11	1	$99,722	$77,550	$74,640	$65,760	26	9	13	38	70	32	44	50	7	0	57	47	52	12	28
		2		$145,556																	
		3		$199,844																	
N	1506.12	1	$109,028	$118,125	$74,640	$65,760	28	9	12	11	64	34	64	56	4	56	90	59	97	98	70
		2		$83,542																	
N	1507.01	1	$87,025	$86,581	$74,640	$65,760	61	8	14	75	42	30	79	50	58	85	89	0	52	54	71
		2		$81,917																	
		3		$82,368																	
		4		$115,481																	
N	1507.02	1	$108,281	$123,625	$74,640	$65,760	25	8	11	13	54	30	87	54	41	62	53	0	52	64	49
		2		$186,786																	
		3		$94,306																	
		4		$100,694																	
Y	1508.00	1	$84,744	$94,632	$74,640	$65,760	33	8	10	3	43	27	6	53	52	61	56	0	52	0	17
		2		$78,036																	
		3		$73,784																	
		4		$124,875																	
Y	1509.01	1	$64,772	$85,298	$74,640	$65,760	46	8	13	68	9	29	85	58	72	62	91	16	52	37	64
		2		$79,022																	
		3		$69,571																	
		4		$97,885																	
		5		$33,214																	
N	1509.02	1	$107,740	$103,295	$74,640	$65,760	26	8	12	38	16	29	37	63	37	43	70	0	52	20	26
		2		$127,031																	
		3		$94,500																	
		4		$107,083																	
Y	1510.00	1	$89,792	$88,977	$74,640	$65,760	36	8	11	14	68	23	77	67	41	0	71	41	52	52	48
		2		$72,500																	
		3		$122,083																	
Y	1512.01	4	$72,986	$78,056	$74,640	$65,760	49	8	9	29	53	17	60	74	50	66	86	44	78	87	73

			Median Household Income		Income Thresholds		Pollution Exposure and Environmental Effects Indicators (CalEnviroscreen 4.0)														
Low-Income Area	Census Tract	Block Group	Med. Hhd. Income (Census Tract)	Med. Hhd. Income (Block Group)	80% of County AMI	80% of State AMI	CalEnviroScreen Index Pctl.	Ozone Pctl.	PM2.5 Pctl.	Diesel Pctl.	Pesticides Use Pctl.	Toxic Release Pctl.	Traffic Impacts Pctl.	Drinking Water Contaminants Pctl.	Children's Lead Risk Pctl.	Cleanup Sites Pctl.	Groundwater Threats Pctl.	Hazardous Waste Pctl.	Impaired Waterbodies Pctl.	Solid Waste Sites Pctl.	Pollution Burden Pctl.
Y	1506.01	1	$90,114	$99,500	$74,640	$65,760	31	8	16	74	0	30	78	15	40	55	65	0	52	59	39
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		3		$69,886																	
		4		$85,625																	
N	1506.02	1	$90,556	$93,214	$74,640	$65,760	11	9	14	31	0	31	50	47	27	0	38	0	0	2	4
		2		$88,750																	
		3		$88,804																	
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Y	1506.03	1	$77,690	$67,617	$74,640	$65,760	35	8	14	50	49	31	71	50	42	25	59	0	52	0	34
		2		$66,278																	
		3		$127,763																	
		4		$106,000																	
		5		$63,750																	
		6		$137,743																	
Y	1506.07	1	$124,643	$122,361	$74,640	$65,760	11	8	12	14	26	26	50	52	10	0	29	47	52	0	11
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		2		$118,561																	
		3		$92,375																	
N	1506.11	1	$99,722	$77,550	$74,640	$65,760	26	9	13	38	70	32	44	50	7	0	57	47	52	12	28
		2		$145,556																	
		3		$199,844																	
N	1506.12	1	$109,028	$118,125	$74,640	$65,760	28	9	12	11	64	34	64	56	4	56	90	59	97	98	70
		2		$83,542																	

			Median Household Income		Income Thresholds		Pollution Exposure and Environmental Effects Indicators (CalEnviroscreen 4.0)														
Low-Income Area	Census Tract	Block Group	Med. Hhd. Income (Census Tract)	Med. Hhd. Income (Block Group)	80% of County AMI	80% of State AMI	CalEnviroScreen Index Pctl.	Ozone Pctl.	PM2.5 Pctl.	Diesel Pctl.	Pesticides Use Pctl.	Toxic Release Pctl.	Traffic Impacts Pctl.	Drinking Water Contaminants Pctl.	Children's Lead Risk Pctl.	Cleanup Sites Pctl.	Groundwater Threats Pctl.	Hazardous Waste Pctl.	Impaired Waterbodies Pctl.	Solid Waste Sites Pctl.	Pollution Burden Pctl.
N	1507.01	1	$87,025	$86,581	$74,640	$65,760	61	8	14	75	42	30	79	50	58	85	89	0	52	54	71
		2		$81,917																	
		3		$82,368																	
		4		$115,481																	
N	1507.02	1	$108,281	$123,625	$74,640	$65,760	25	8	11	13	54	30	87	54	41	62	53	0	52	64	49
		2		$186,786																	
		3		$94,306																	
		4		$100,694																	
Y	1508.00	1	$84,744	$94,632	$74,640	$65,760	33	8	10	3	43	27	6	53	52	61	56	0	52	0	17
		2		$78,036																	
		3		$73,784																	
		4		$124,875																	
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		2		$127,031																	
		3		$94,500																	
		4		$107,083																	
Y	1510.00	1	$89,792	$88,977	$74,640	$65,760	36	8	11	14	68	23	77	67	41	0	71	41	52	52	48
		2		$72,500																	
		3		$122,083																	
Y	1512.01	4	$72,985	$78,056	$74,640	$65,760	49	8	9	29	53	17	60	74	50	66	86	44	78	87	73

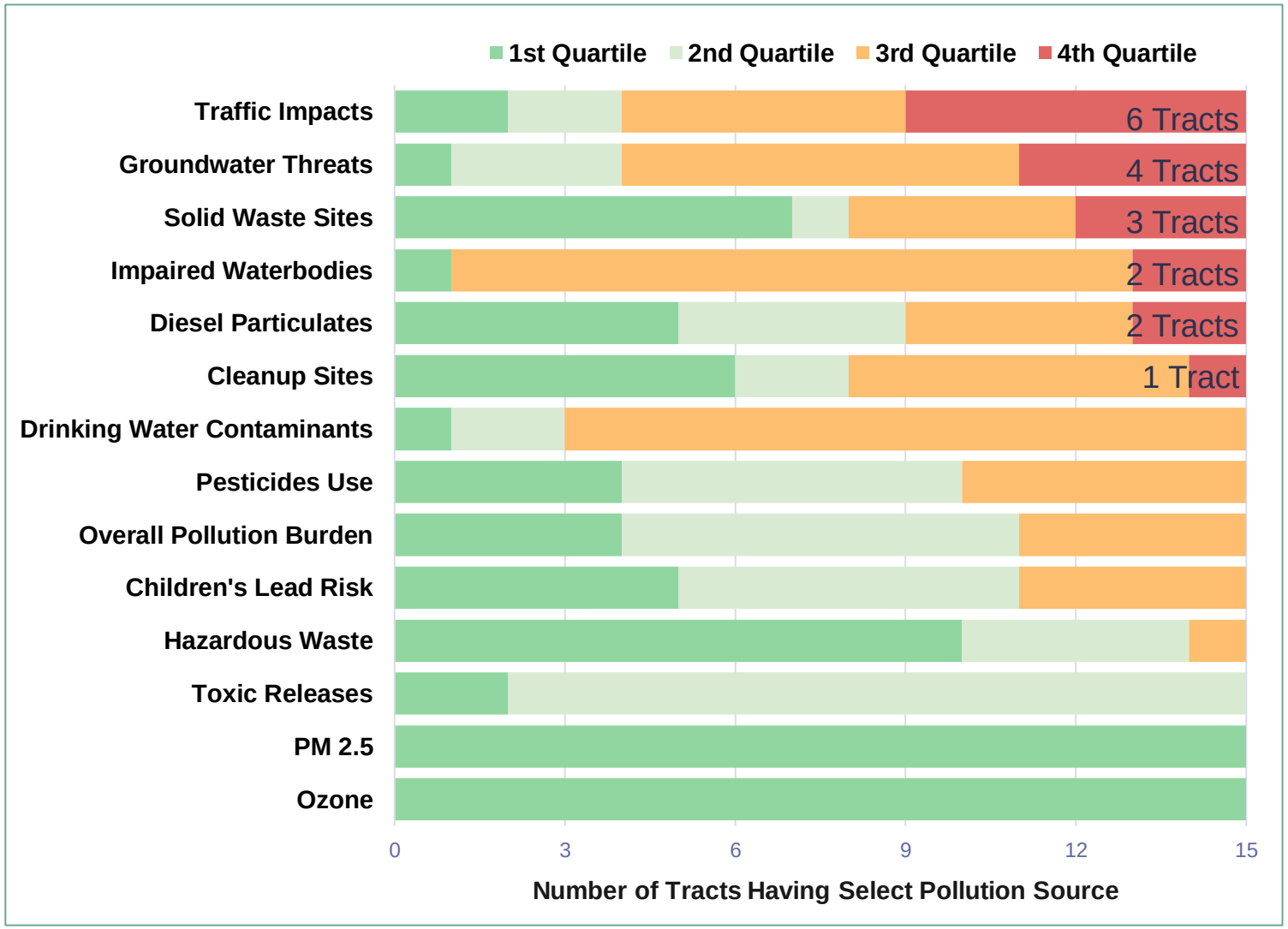
Findings from Identifying Low-Income Areas with Pollution Burdens

- **Low-Income Census Tracts**
  - One census tract was identified as below 80% of the County's AMI: 1509.01. This area has two pollution indicators in the top 25% of scores in the state and, thus, is considered a potential DAC.
- **Low-Income Block Groups**
  - Ten census block groups were identified as below 80% of the County's AMI: 1506.01.3, 1506.03.1, 1506.03.2, 1506.03.5, 1506.07.2, 1506.09.2, 1508.00.3, 1509.01.3, 1509.01.5, and 1510.00.2.
  - These ten census block groups are associated with seven census tracts, including the low-income census tract (1509.01).
  - Three census tracts with low-income block groups (1506.03, 1506.07, and 1508.00) do not have high pollution burden scores. The four other tracts have at least one indicator in the top 25% of scores in the state.
  - Thus, the following block groups are considered potential DACs because they are low income and have a high pollution burden score: 1506.01.3, 1506.09.2, 1509.01.3, 1509.01.5, and 1510.00.2.
- **High Pollution Burden Tracts**
  - Several census tracts had high pollution burden scores but did not meet the low-income threshold.
  - Thus, pollution exposure and environmental effects may be a citywide issue that should be addressed in the General Plan.

Sources: ACS, 2015-2019; CalEnviroScreen, 2021

Citywide Pollution Burden

- Areas within Petaluma scored within the top 25% of census tracts in the state for six pollution burden indicators (shown in RED)
- The following are the number of tracts for each pollution burden indicator with a score at or above 75th percentile:
  - Traffic Impacts – 6 Tracts
  - Groundwater Threats – 4 Tracts
  - Solid Waste Sites – 3 Tracts
  - Impaired Waterbodies – 2 Tracts
  - Diesel Particulates – 2 Tracts
  - Cleanup Sites – 1 Tract
- The following set of maps spatially compare the identified low-income areas against each of these pollution indicators for a spatial representation of the table in page 43 and the chart to the right on this page.
- Each indicator is described briefly on the following pages. For more information on the indicators, please review the CES methodology at https://oehha.ca.gov/calenviroscreen



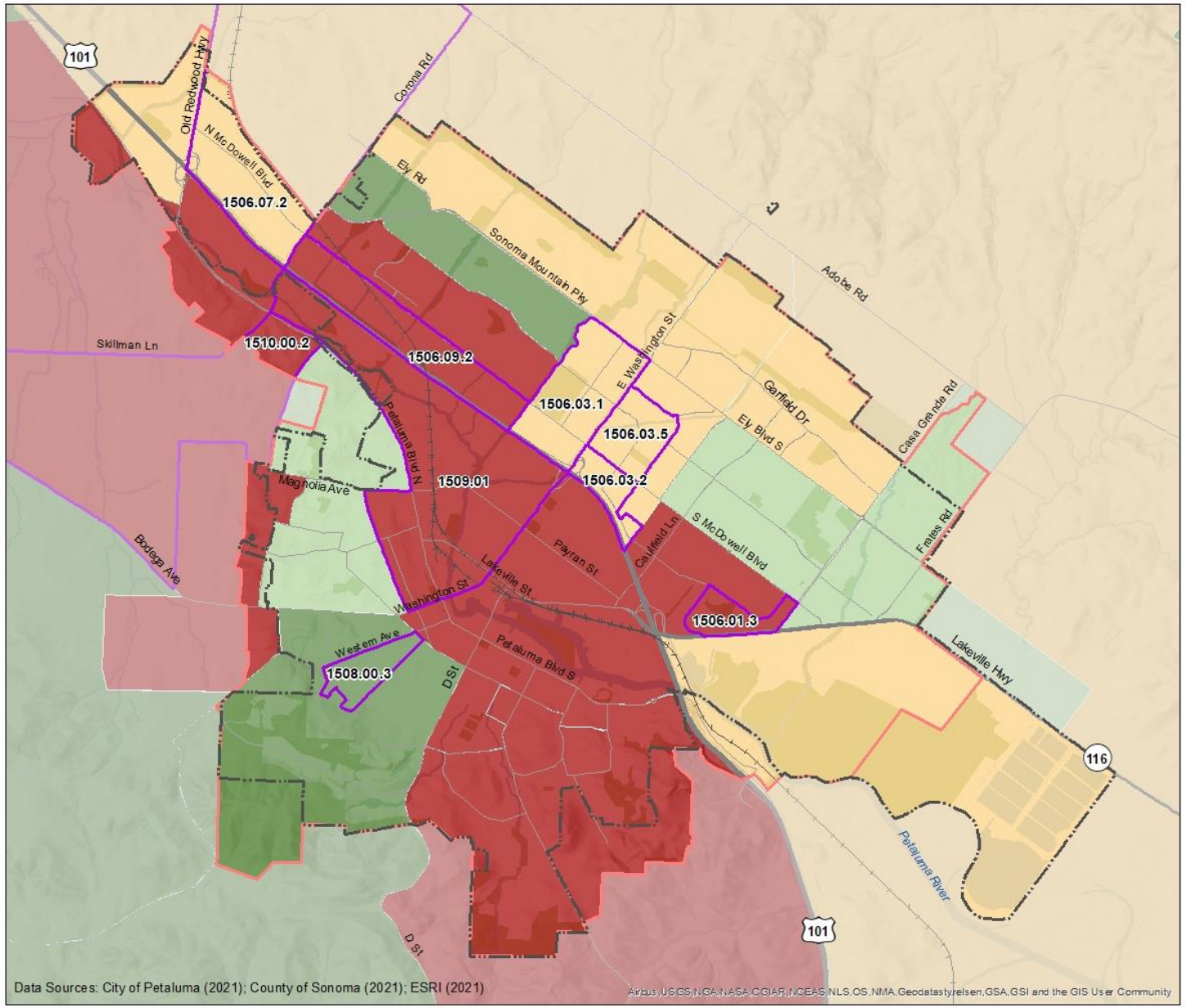
Sources: CalEnviroScreen, 2021

Traffic Impacts

This indicator measures the sum of traffic volumes adjusted by road segment length divided by total road length within 150 meters of a census tract boundary. Traffic exhaust increases local levels of particulate matter, nitrogen oxides, carbon monoxide, benzene, and ozone.

Four low-income areas are at or above the 75th percentile threshold: 1506.01 Block Group 3, 1506.09 Block Group 2, Tract 1509.01, and 1510 Block Group 2. These areas have a potentially high pollution burden for traffic impacts and, thus, can be considered potential DACs.

(Data from 2017.)



Traffic Impacts

- < 25%
- 25% - 50%
- 50% - 75%
- > 75%

Note: For all the following pollution indicator maps, only low-income areas are labeled on the map.

- Low-Income Areas
- City Limit
- Urban Growth Boundary / Sphere of Influence
- Water
- Parks / Open Space
- Railway
- Freeway
- Major Streets

0 0.25 0.5 1 Miles

CITY OF PETALUMA GENERAL PLAN UPDATE

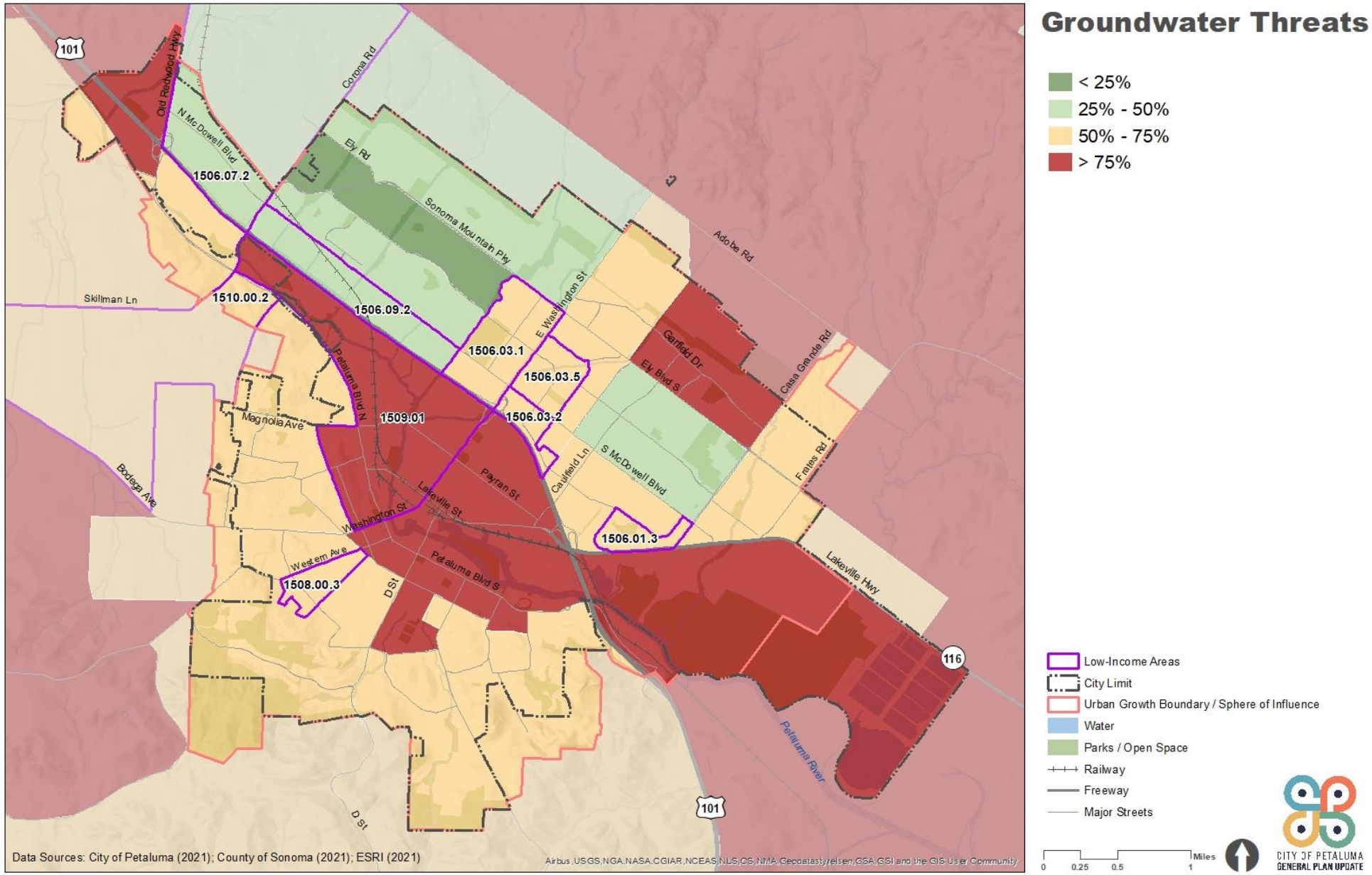
Sources: CalEnviroScreen, 2021

Groundwater Threats

This indicator measures proximity to potential sources of groundwater contamination. Hazardous chemicals are often stored in underground storage tanks, such as at gasoline stations and certain industrial sites. Common groundwater pollutants include gasoline, solvents, and heavy metals.

One low-income area (Tract 1509.01) is at or above the 75th percentile threshold. Within this area, there are leaking underground storage tanks at two gasoline stations, an oil change shop, and an industrial facility along North Petaluma Blvd. This area has a potentially high pollution burden for groundwater threats and, thus, can be considered a potential DAC. *(Data from March 2020.)*

Sources: CalEnviroScreen, 2021

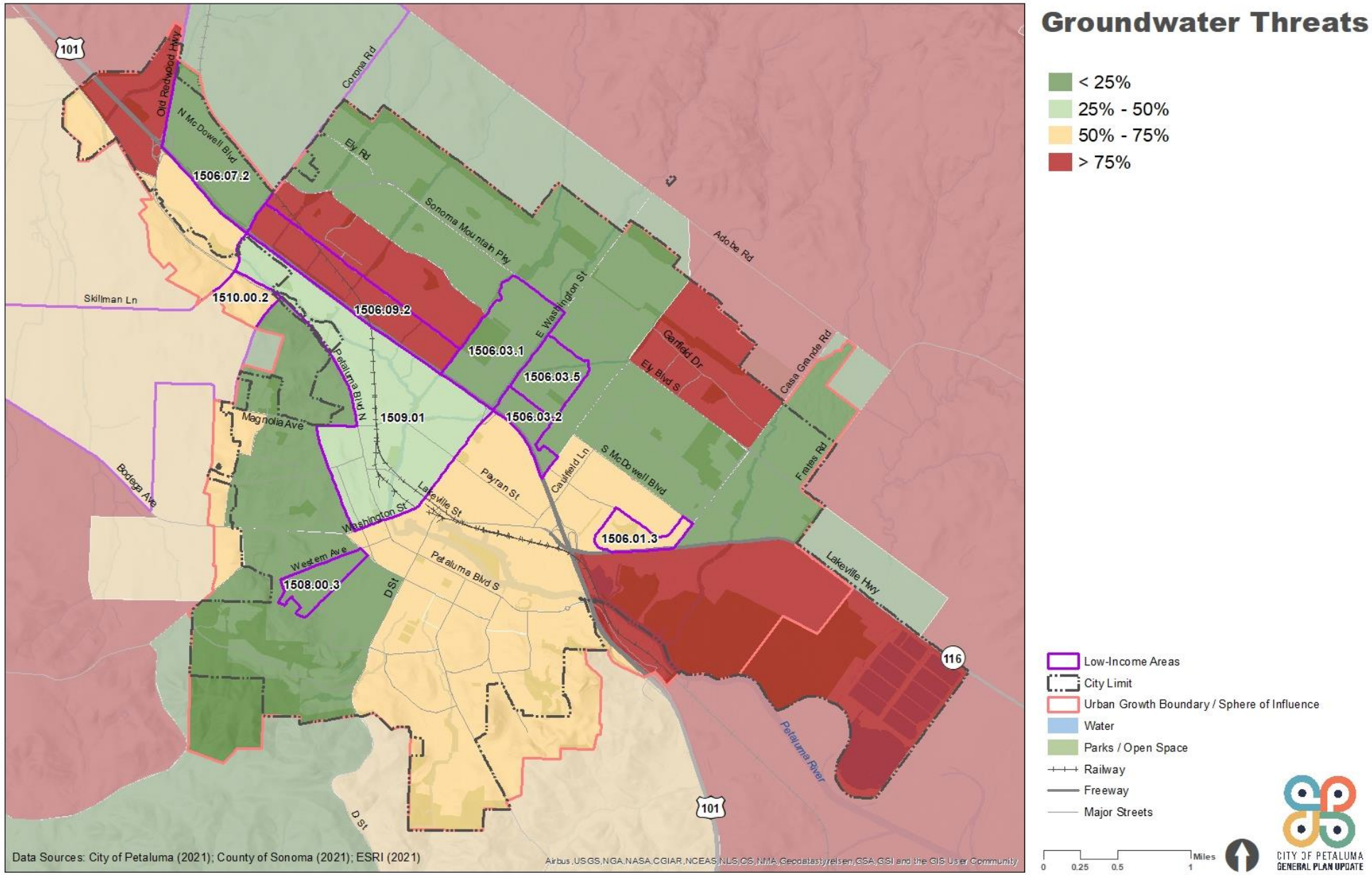


Solid Waste Sites

This indicator measures proximity to solid waste sites and facilities, including landfills, transfer stations, material recovery facilities, composting sites, and closed disposal sites.

One low-income area (1506.09 Block Group 2) is at or above the 75th percentile threshold. Within this area, there is a solid waste site (Petaluma Refuse & Recycling Inc) at 1309 Dynamic Street. This area has a potentially high pollution burden for solid waste and, thus, can be considered a potential DAC.

(Data from March 2020.)



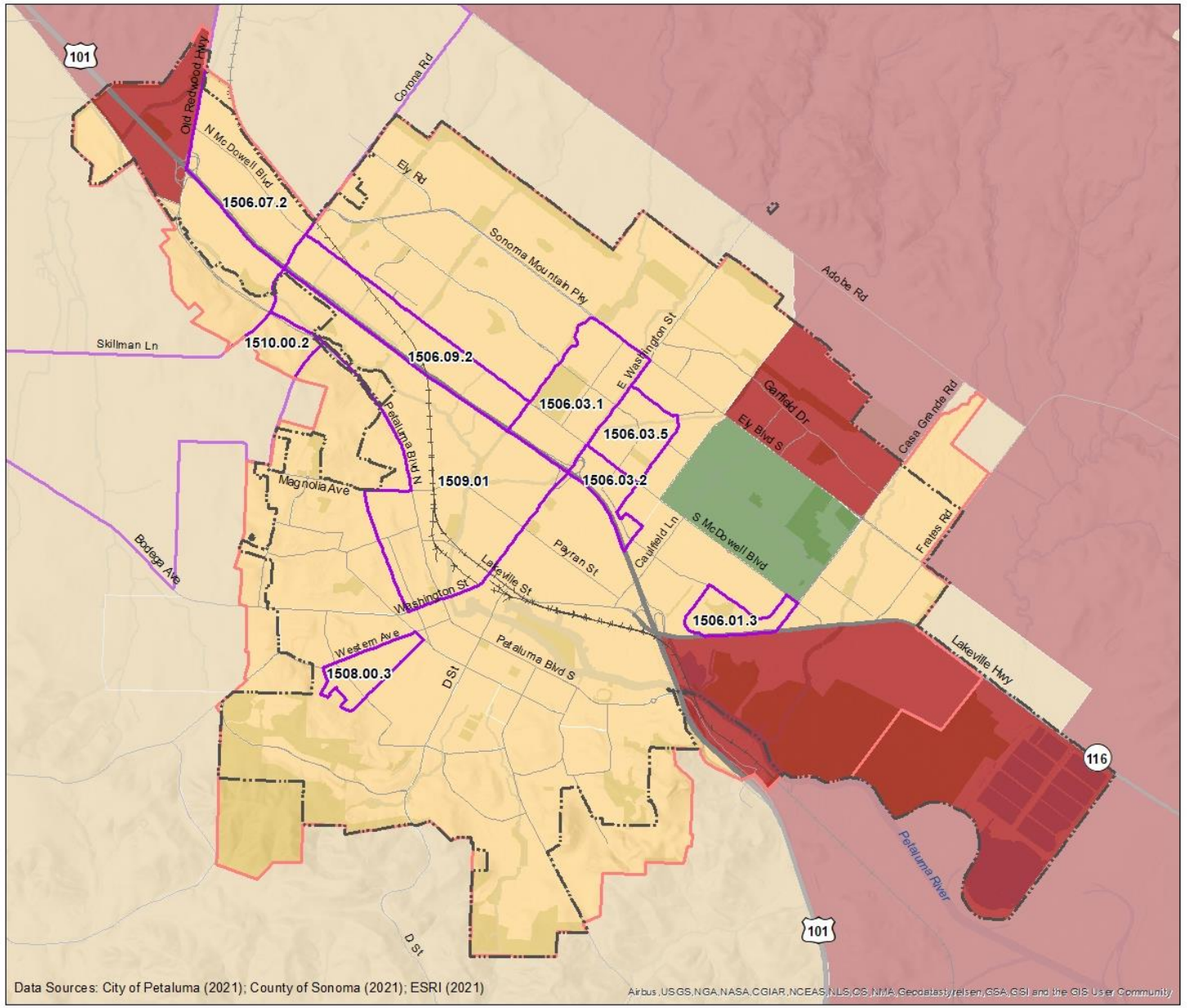
Sources: CalEnviroScreen, 2021

Impaired Waterbodies

This indicator measures the presence of pollutants across all water bodies that are designated as impaired, defined as not meeting water quality standards.

There are no low-income areas with a potentially high burden for impaired waterbodies. While positive, most of Petaluma has higher than average potential pollution burden for impaired waterbodies, because of the Petaluma River's water quality. This indicator may be a topic of citywide concern.

(Data from 2014 and 2016.)



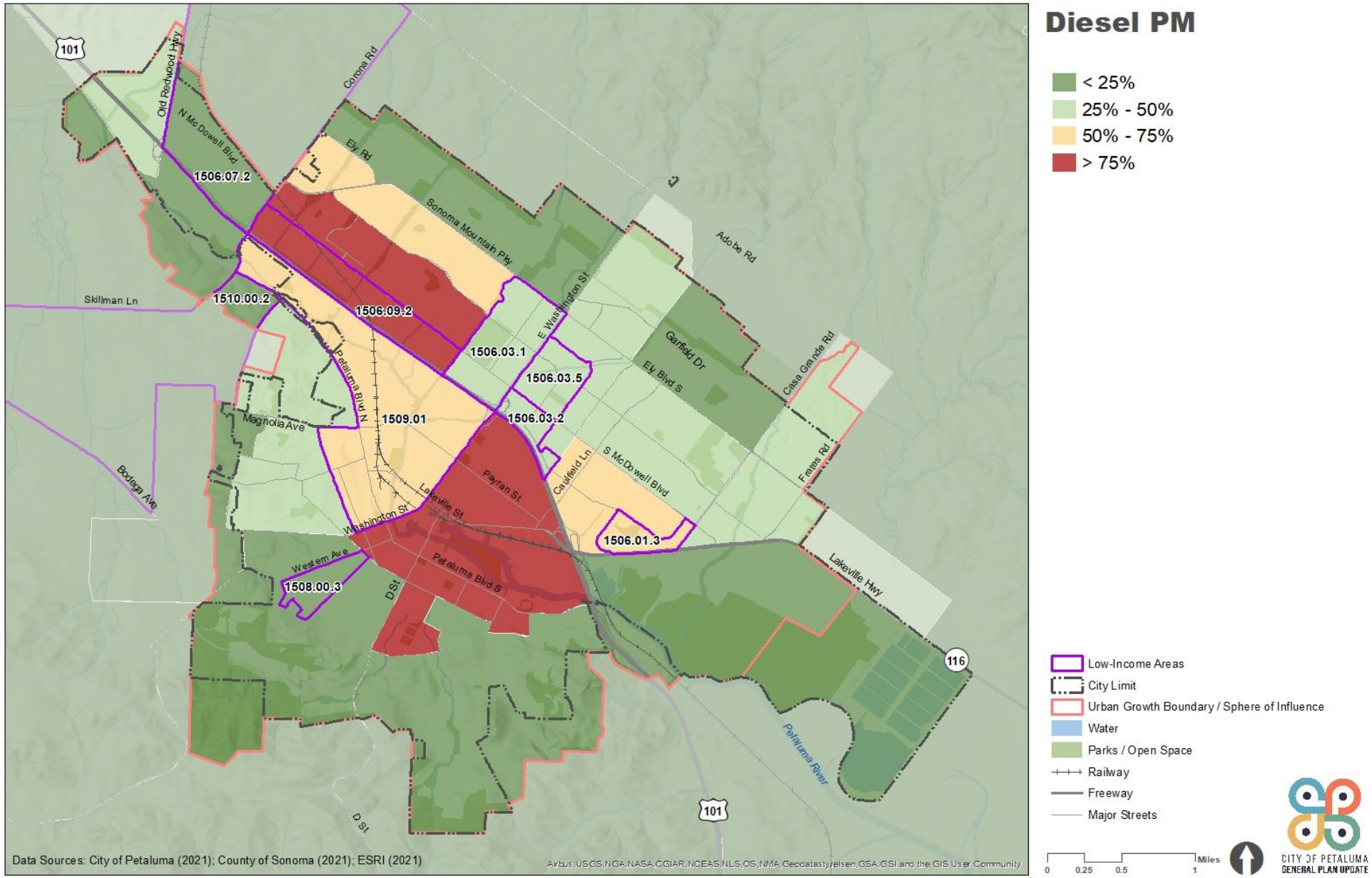
Sources: CalEnviroScreen, 2021

Diesel Particulate Matter (PM)

This indicator identifies the spatial distribution of diesel PM emissions from on-road and non-road sources.

One low-income area (1506.09 Block Group 2) is at or above the 75th percentile threshold. This area has a potentially high pollution burden for diesel particulate matter and, thus, can be considered a potential DAC.

(Data from 2016)



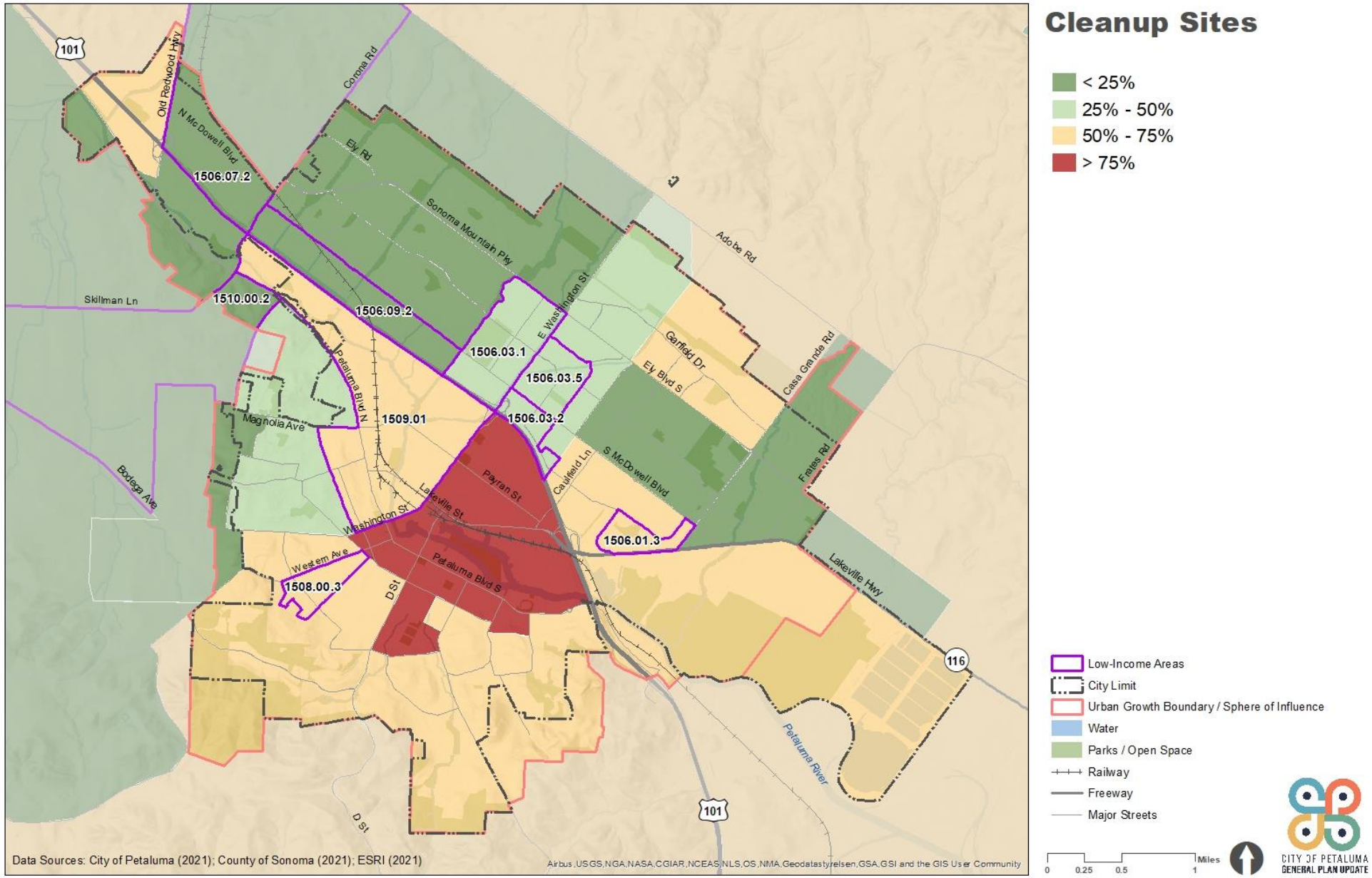
Sources: CalEnviroScreen, 2021

Cleanup Sites

This indicator identifies environmental pollution sites and measures sum of weighted sites within each census tract.

There are no low-income areas in Petaluma at or above the 75th percentile threshold, or with a potentially high pollution burden for cleanup sites. However, there is one census tract that is not low-income and has a potentially high pollution burden for cleanup sites.

(Data from March 2020)



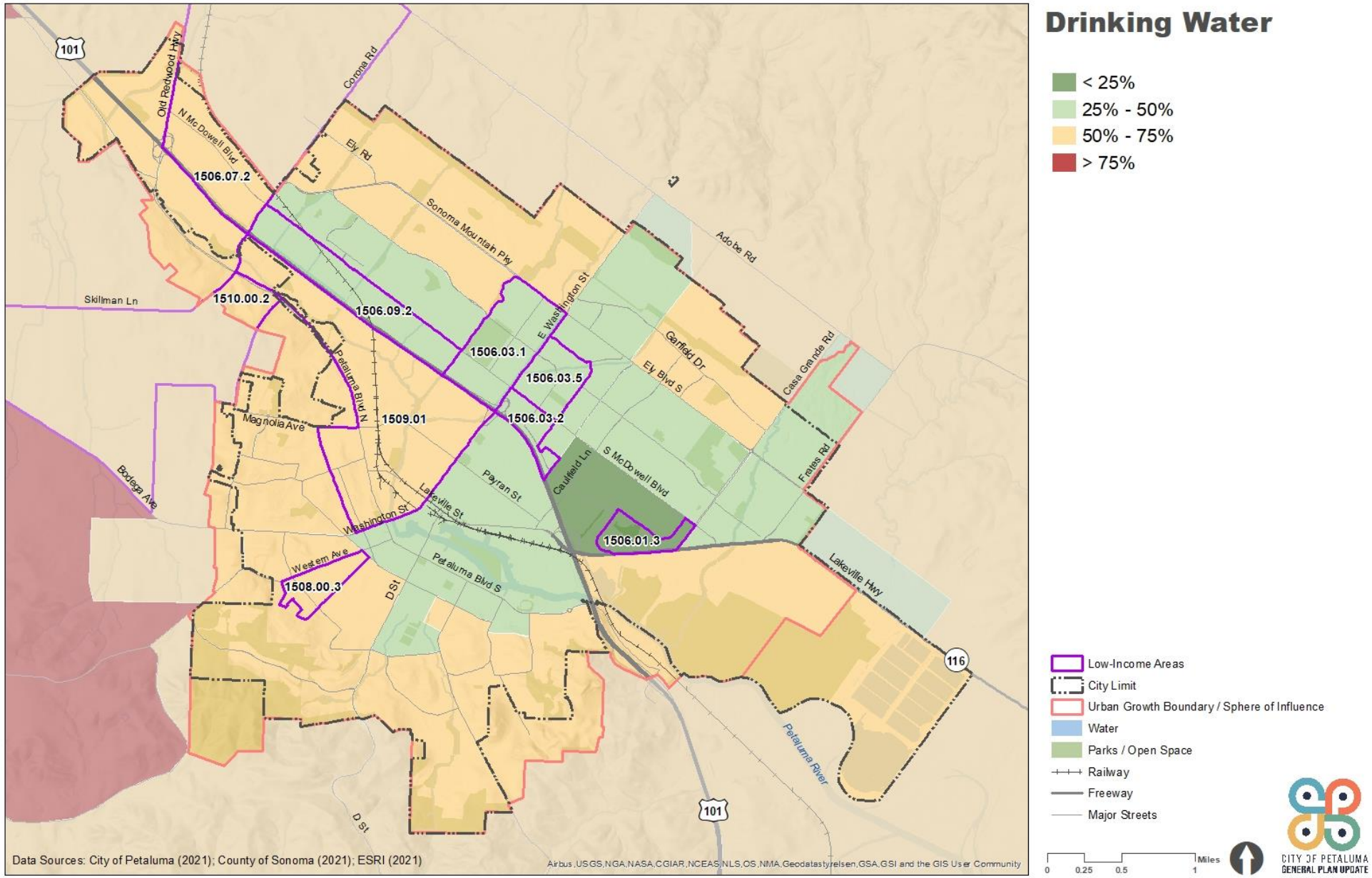
Sources: CalEnviroScreen, 2021

Drinking Water Contaminants

This indicator is an index that considers the relative concentrations of different water contaminants and whether multiple contaminants are present. This data does not indicate whether water is safe to drink.

There are no low-income areas in Petaluma at or above the 75th percentile threshold, or with a potentially high pollution burden for drinking water contaminants.

(Data from 2011-2019)



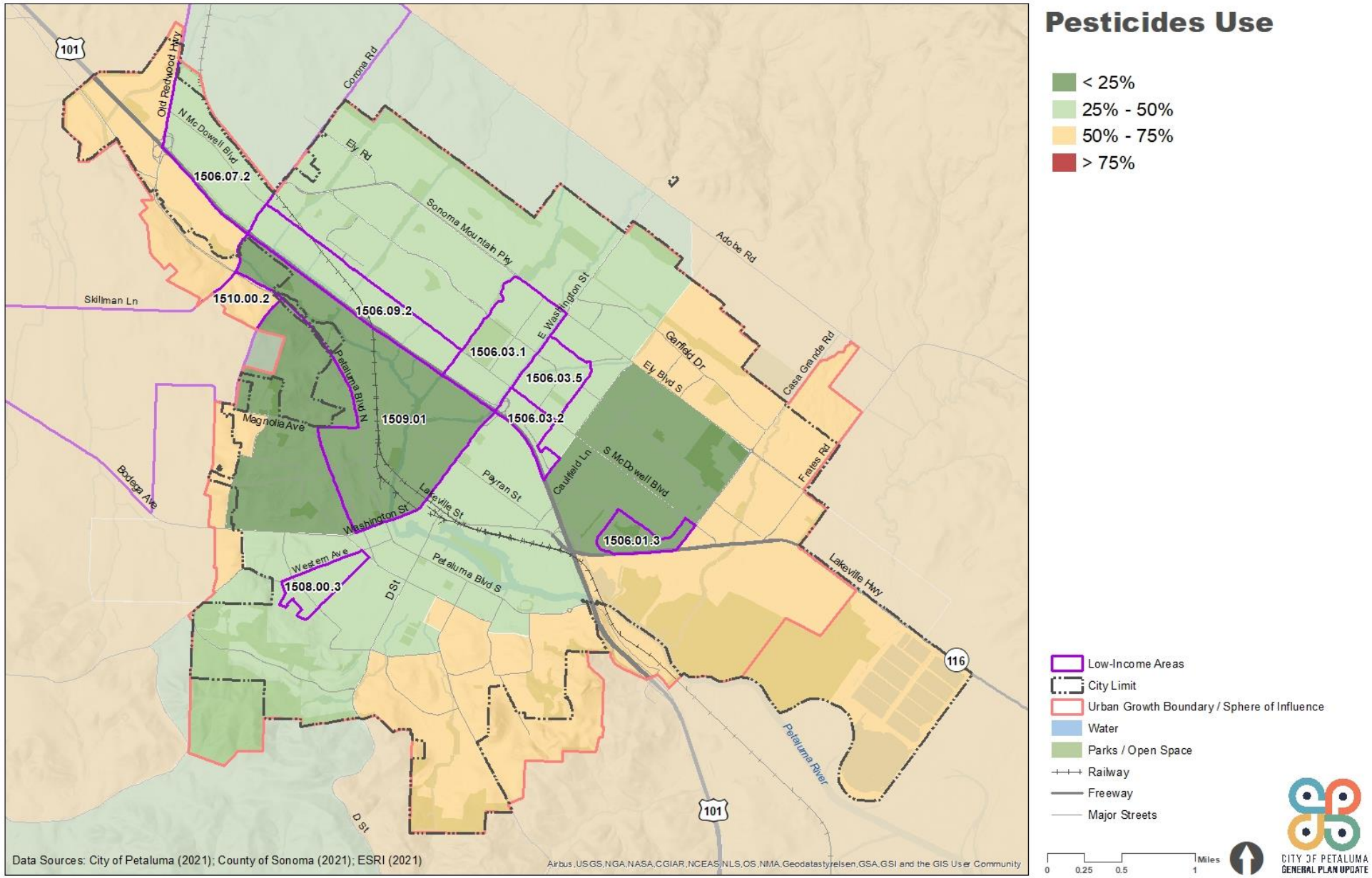
Sources: CalEnviroScreen, 2021

Pesticides Use

This indicator measures the total pounds of 83 selected active pesticide ingredients (filtered for hazard and volatility) used in production-agriculture per square mile, averaged over three years.

Despite the proximity to agricultural uses, there are no low-income areas in Petaluma at or above the 75th percentile threshold, or with a potentially high pollution burden for pesticides.

(Data from 2016-2018)



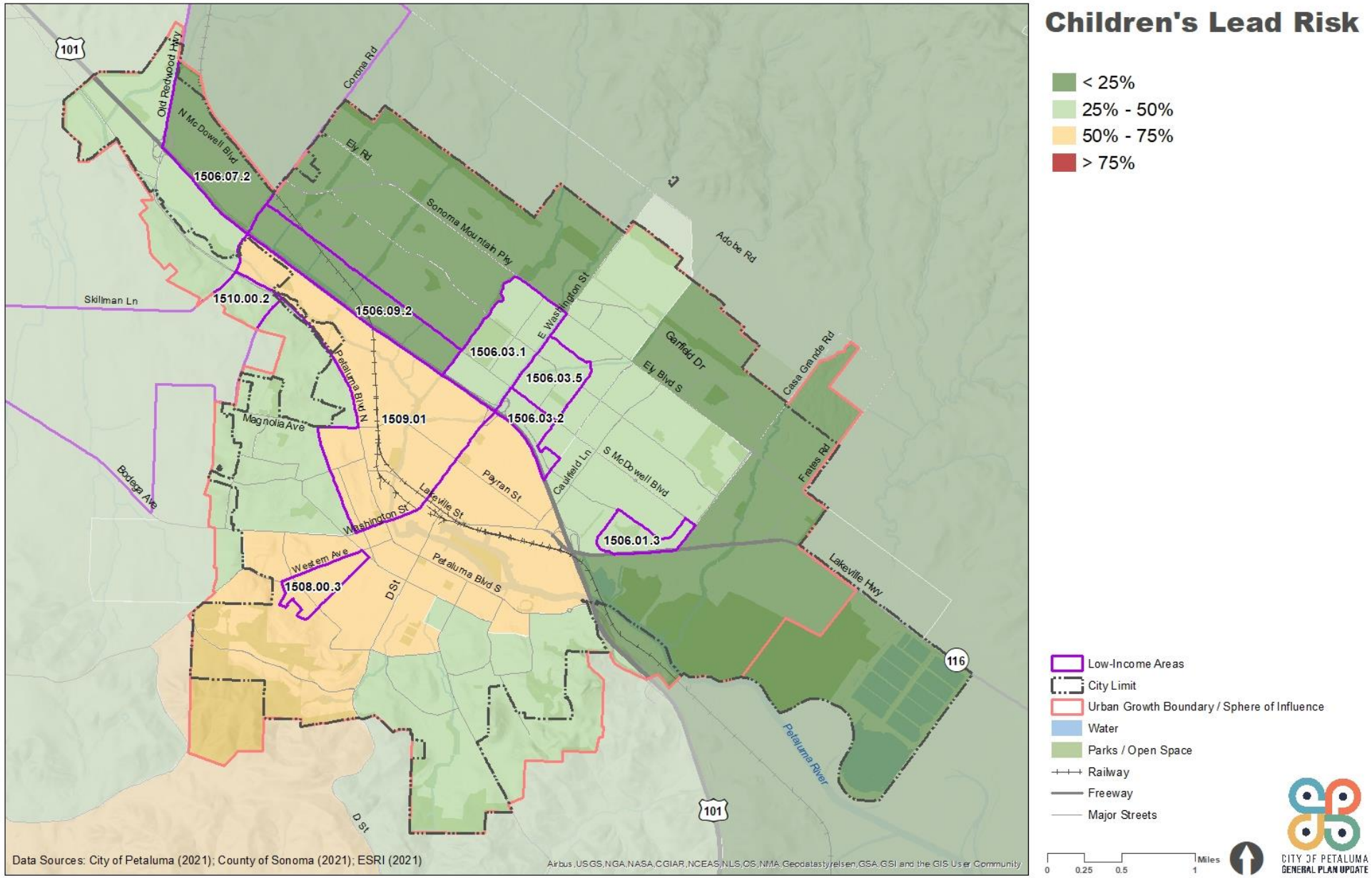
Sources: CalEnviroScreen, 2021

Children’s Lead Risk

This indicator measures potential risk for lead exposure for children. The indicator uses the age of housing units as proxy for the presence of lead due the fact that lead paints are commonly found in older homes.

There are no low-income areas in Petaluma at or above the 75th percentile threshold, or with a potentially high pollution burden for children’s lead risk.

(Data from 2012-2018)



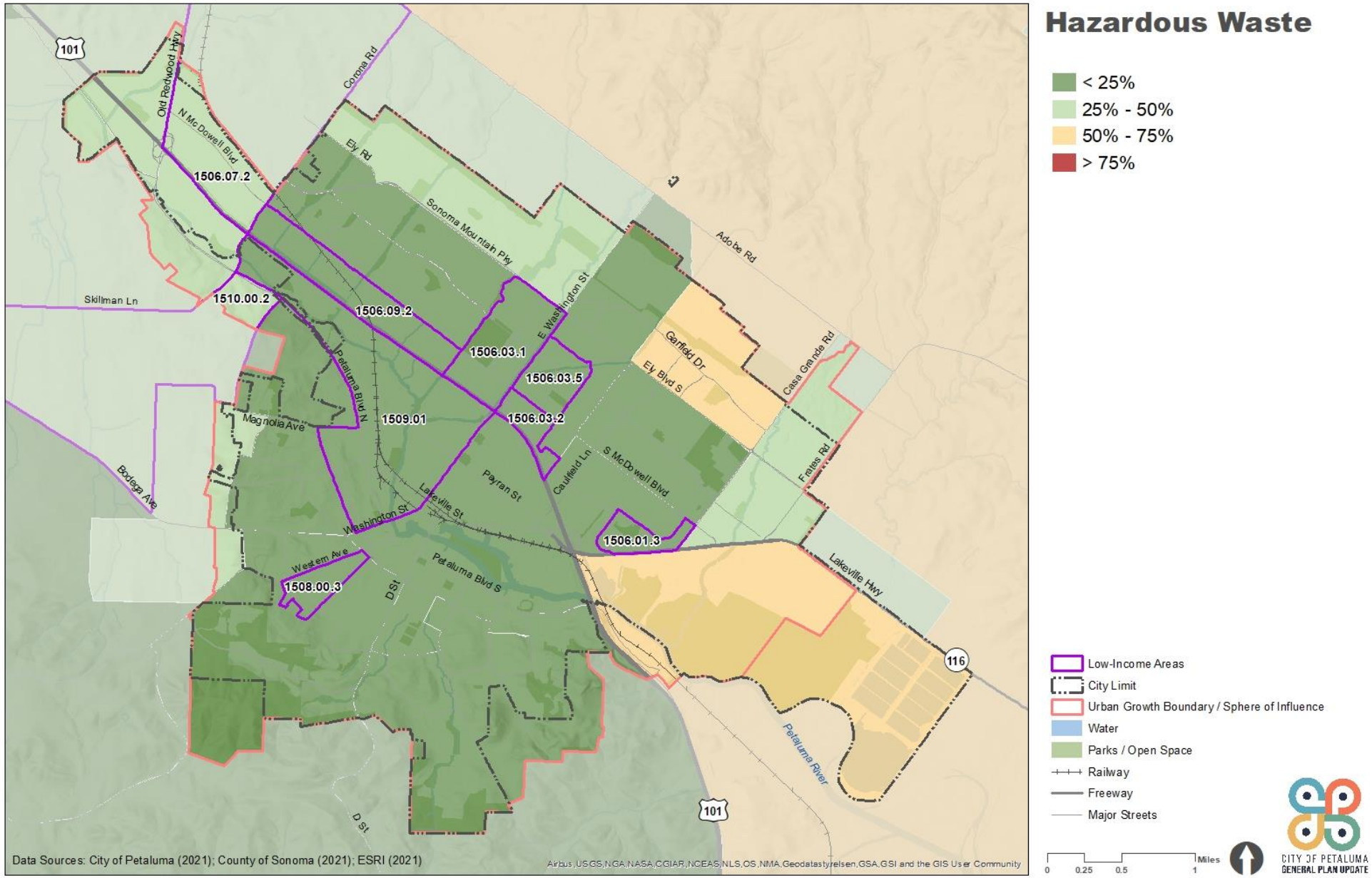
Sources: CalEnviroScreen, 2021

Hazardous Waste

This indicator measures the sum of weighted permitted hazardous waste facilities, hazardous waste generators, and chrome plating facilities within each census tract.

There are no low-income areas in Petaluma at or above the 75th percentile threshold, or with a potentially high pollution burden for hazardous waste.

(Data from 2017-2019)



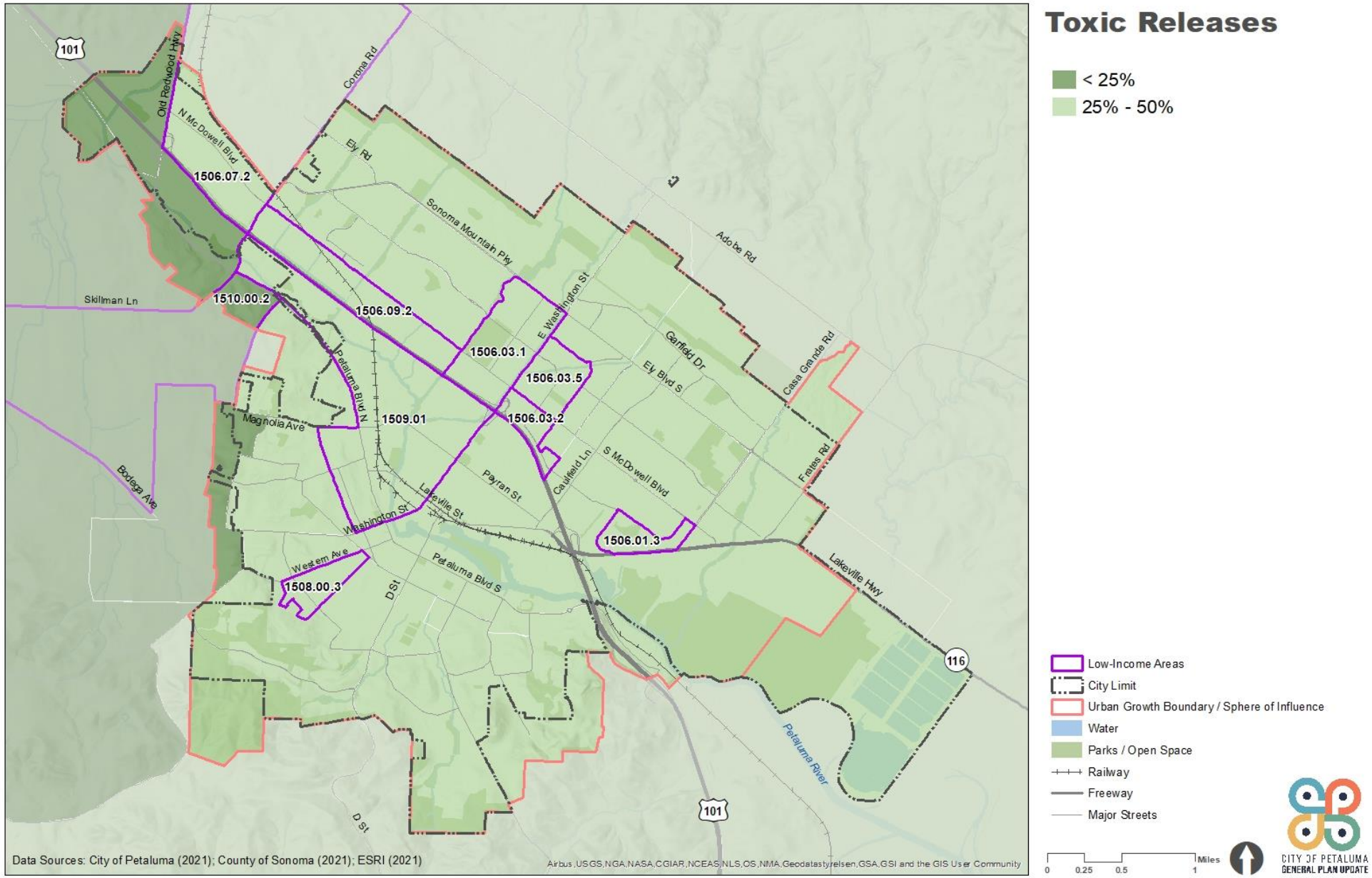
Sources: CalEnviroScreen, 2021

Toxic Releases from Facilities

This indicator measures toxicity-weighted concentrations of modeled chemical releases to air from facility emissions and off-site incineration.

There are no low-income areas in Petaluma at or above the 75th percentile threshold, or with a potentially high pollution burden for toxic releases from facilities.

(Data from 2014-2016)



Sources: CalEnviroScreen, 2021

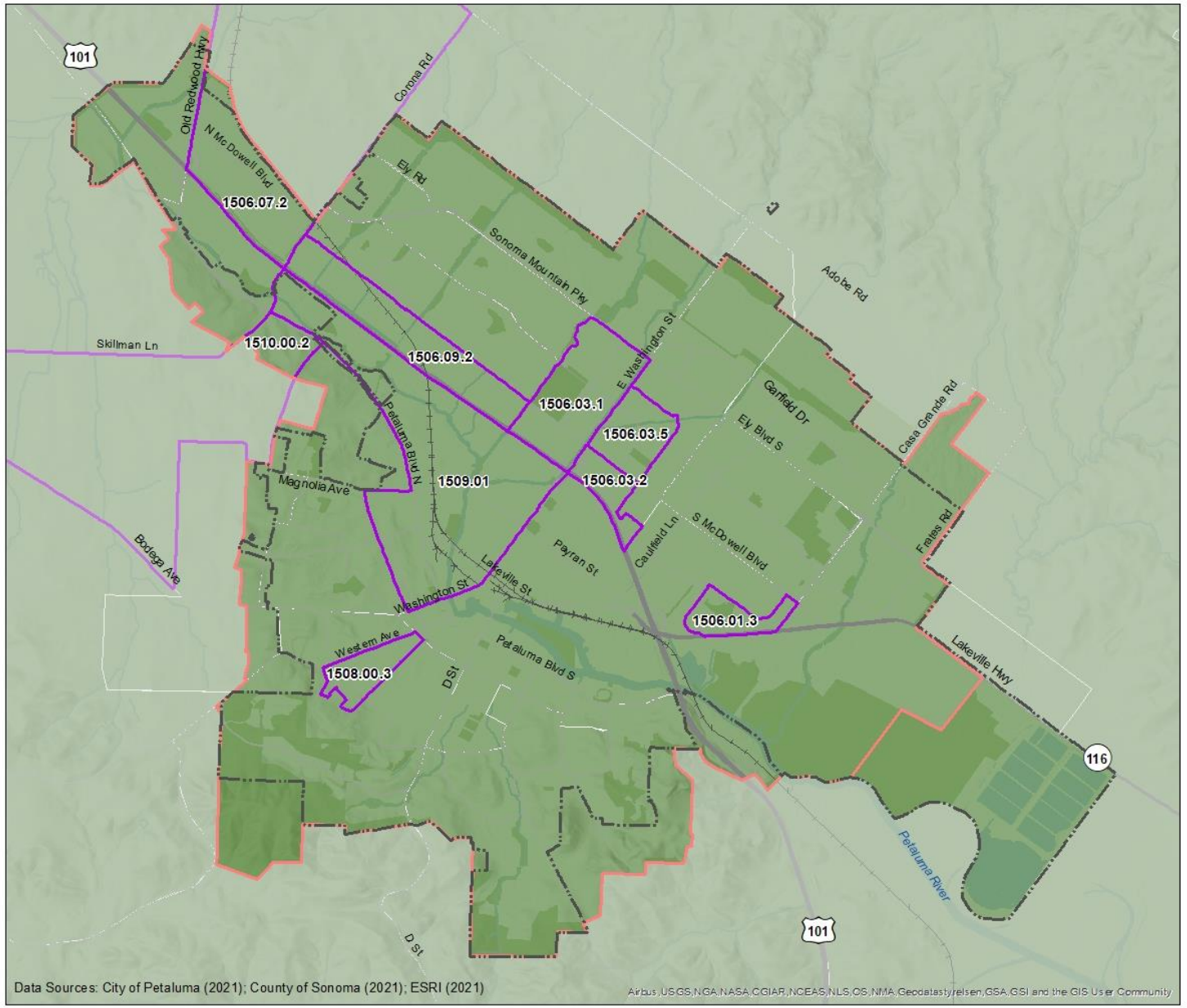
Particulate Matter 2.5

This indicator measures annual mean concentration of fine particulate matter (PM2.5) over three years, from a public network of air quality monitoring stations.

There are no low-income areas in Petaluma at or above the 75th percentile threshold, or with a potentially high pollution burden for PM2.5.

However, there is no air quality monitoring station within Petaluma and the nearest station is in Sebastopol. Therefore, it is difficult to make conclusions for Petaluma based on this dataset.

(Data from 2015-2017)



Sources: CalEnviroScreen, 2021

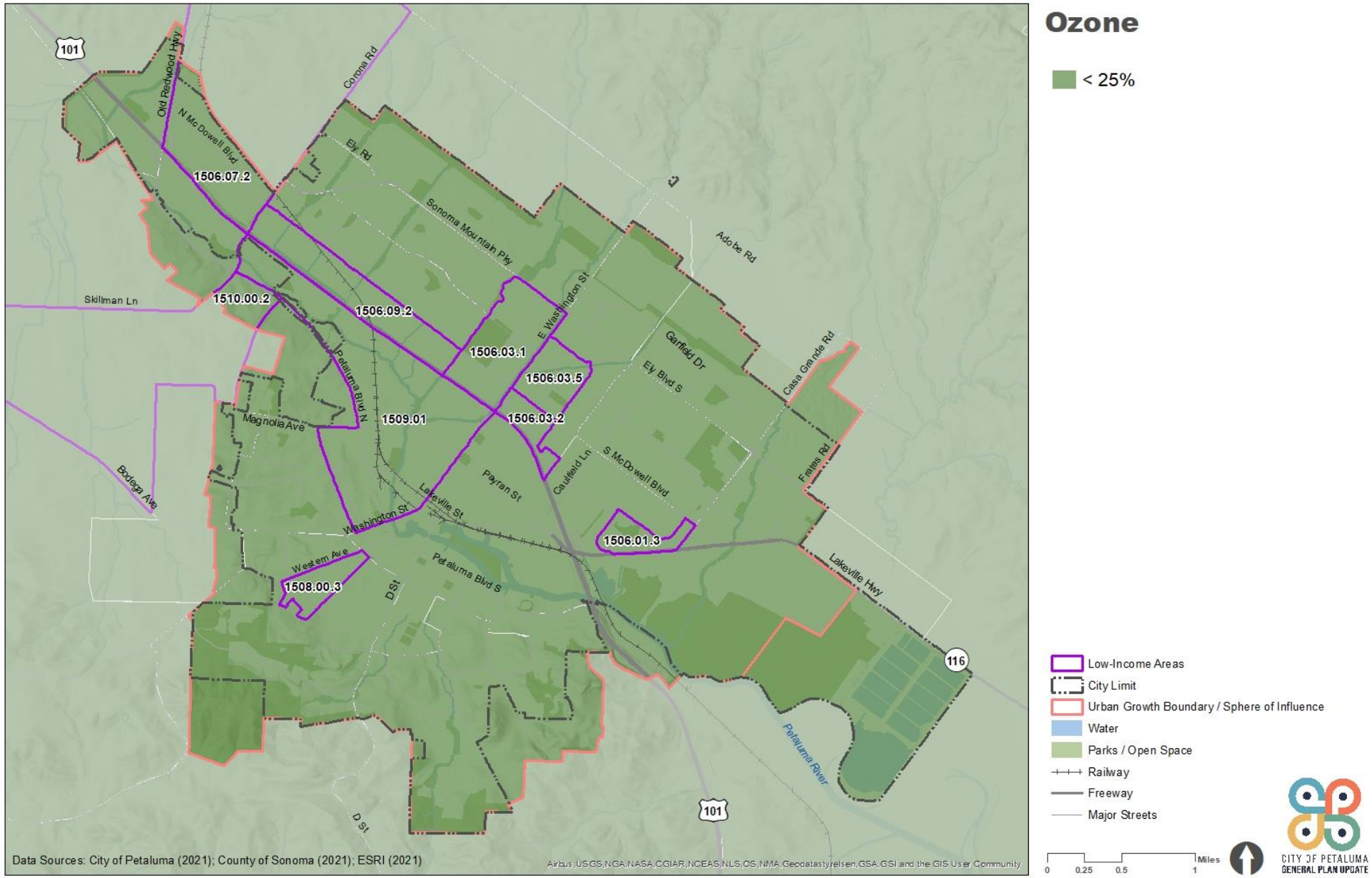
Ozone

This indicator measures mean of summer months (May-October) of the daily maximum 8-hour ozone concentration averaged over three years, from a public network of air quality monitoring stations.

There are no low-income areas in Petaluma at or above the 75th percentile threshold, or with a potentially high pollution burden for ozone.

However, there is no air quality monitoring station within Petaluma and the nearest station is in Sebastopol. Therefore, it is difficult to make conclusions for Petaluma based on this dataset.

(Data from 2016-2018)



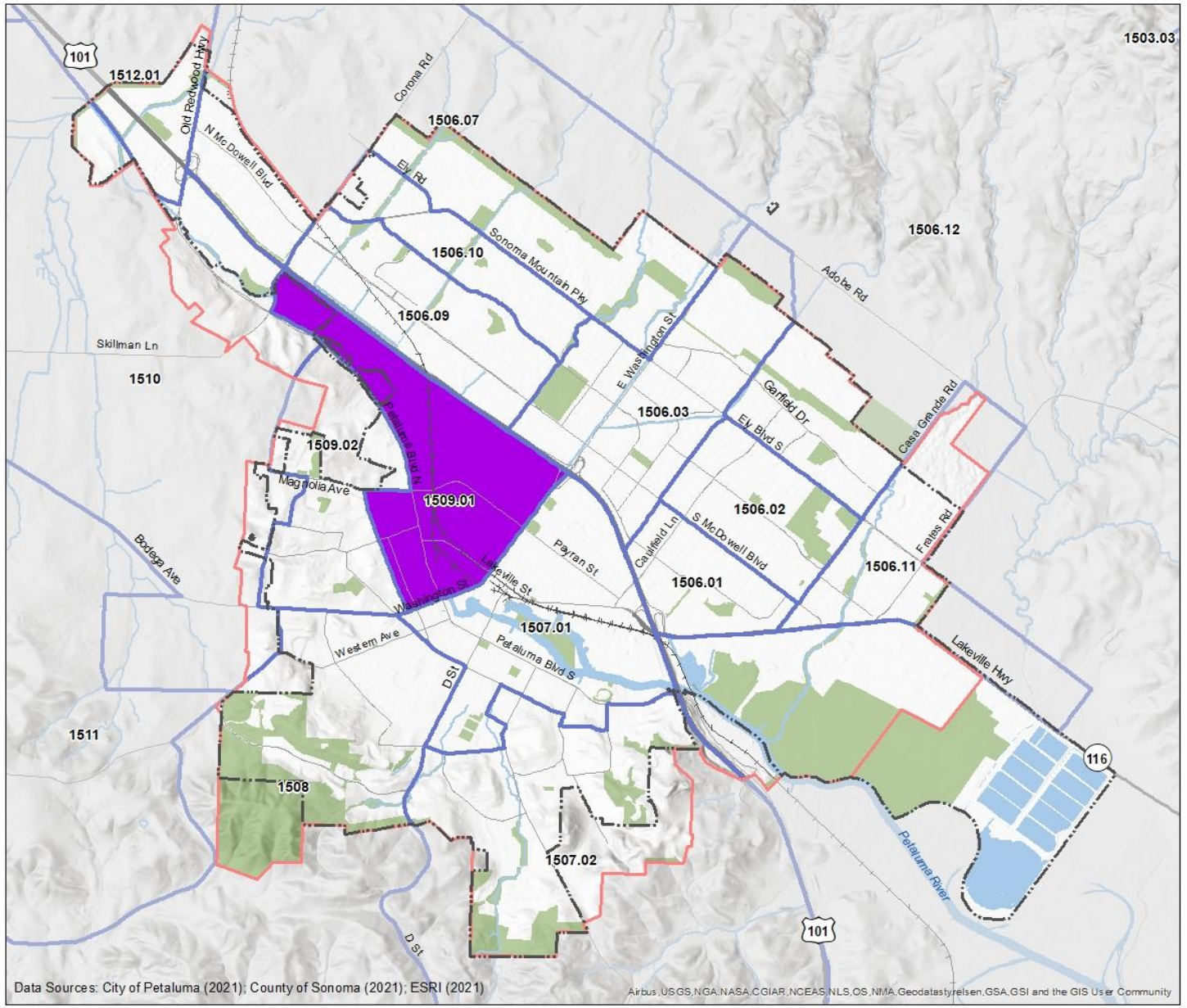
Sources: CalEnviroScreen, 2021

Conclusion: Method 2 Results (Tracts)

One census tract (Tract 1509.01) was identified as below 80% of the County's AMI.

This identified low-income census tract had a high pollution burden for two indicators.

- Traffic Impacts
- Groundwater Threats



Method 2 (Tracts)

Potential DAC

Census Tracts
City Limit
Urban Growth Boundary / Sphere of Influence
Water
Parks / Open Space
Railway
Freeway
Major Streets

0 0.25 0.5 1 Miles

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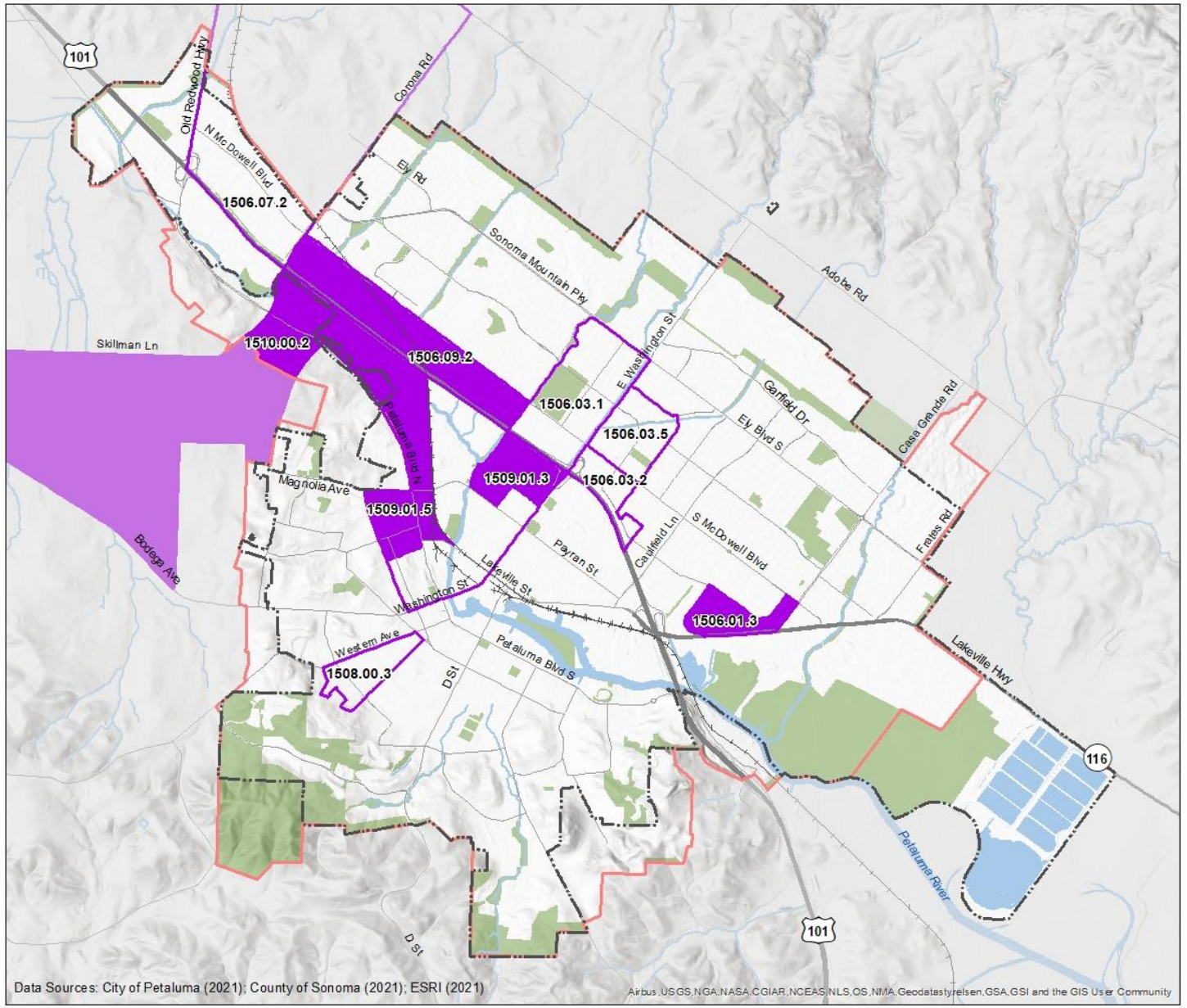
Method 2 Results (Block Groups)

Of the 10 low-income block groups, five had a high pollution burden. These five block groups are associated with four census tracts (1506.01, 1506.09, 1509.01, and 1510).

The following are the pollution burdens and the number of block groups per burden:

- Traffic Impacts – 5 block groups
- Groundwater Threats – 2 block groups
- Solid Waste Sites – 1 block group
- Diesel Particulate Matter – 1 block group

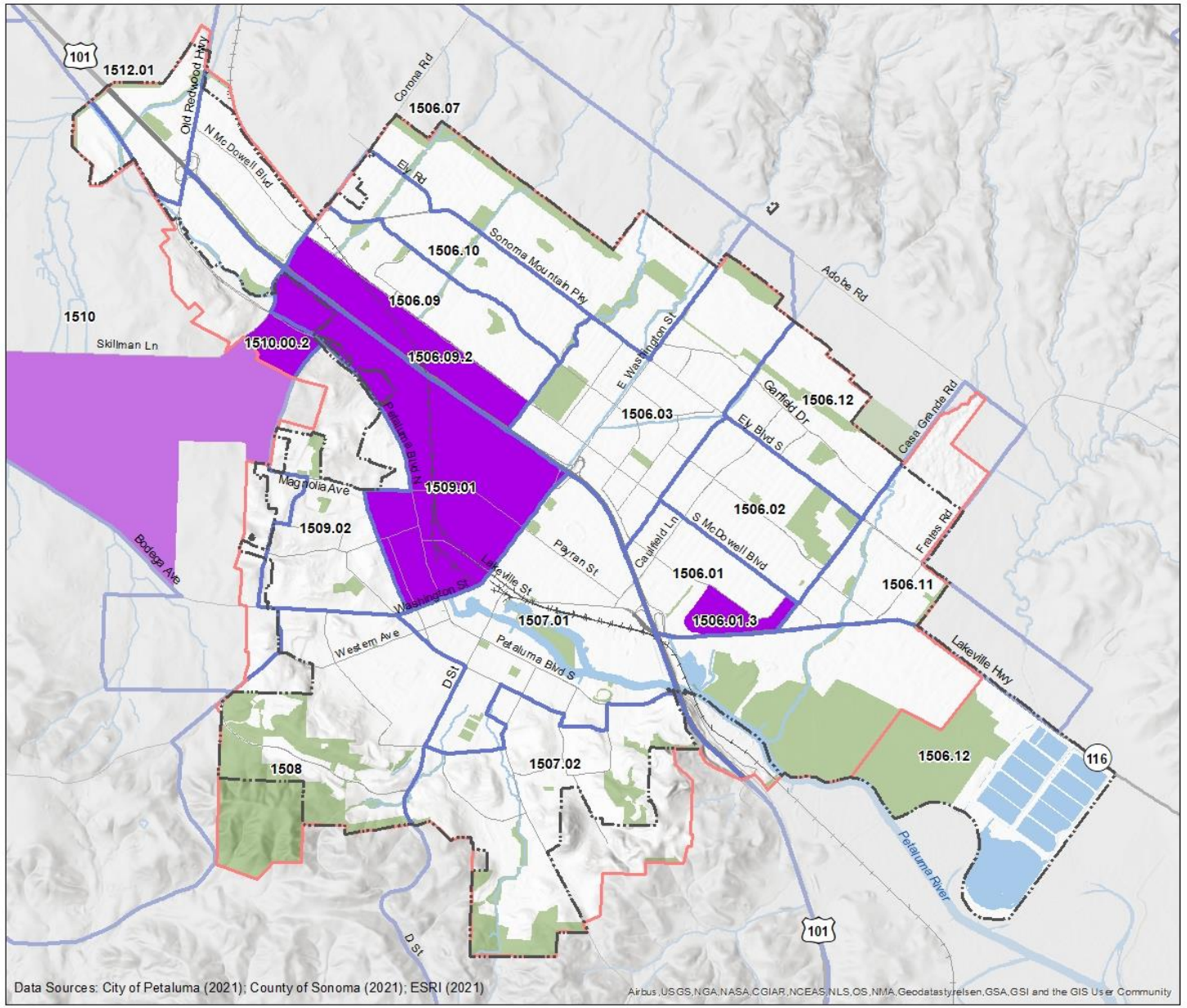


Method 2 Combined Results

Combining the two spatial layers of analysis, this analysis identified **4 low-income areas as potential DACs**.

- Tract 1509.01
- 1506.01, Block Group 3
- 1506.09, Block Group 2
- 1510.00, Block Group 2

Further analysis in Method 3 is needed to determine whether there are any additional potential DACs in Petaluma.



Method 3: Additional Data

Section Overview

The State recommends that jurisdictions analyze community-specific data for additional health risk factors and disproportionate burden from pollution or other hazards that can also lead to negative health effects, exposure, or environmental degradation. The specific methods or data sources are not identified in state law and jurisdictions have flexibility to identify community-specific conditions that impact health outcomes.

For Petaluma, the General Plan Team used two separate methods.

- **Method 3A** identifies high social vulnerability areas using the CDC's Social Vulnerability Index and then compares them to each of the CalEnviroScreen (CES) pollution indicators. High social vulnerability areas with CES scores for individual indicators at or above the 75th percentile are considered potential DACs.
- **Method 3B** combines all the identified low-income areas (using both the block group and census tract analysis) and the high social vulnerability areas, then compares them to additional health and environmental indicators. Areas with high health or environmental burden plus either low income or high social vulnerability are considered potential DACs.

(Note: "Social vulnerability" is defined using the Social Vulnerability Index developed by the Centers for Disease Control and Prevention (CDC). This index is described below.)

Method 3

Community-Specific Data and Groundtruthing

Review Community-Specific Data

Verification through Community Engagement

Method 3A: Social Vulnerability Index

- The Social Vulnerability Index was developed by the Centers for Disease Control and Prevention (CDC). The Index includes 15 indicators and data is provided at the census tract level. (The graphic to the right lists the 15 indicators in four broad categories.) The Index is commonly used to identify communities that will most likely need support before, during, or after natural disasters and public health emergencies.
- The Index was used for this Health and EJ analysis because it includes multiple indicators for socioeconomic status, language, and age. Research has shown that health burdens are strongly correlated with these socioeconomic and demographic indicators.
- For the purposes of this analysis, the Social Vulnerability Index was recalibrated for Sonoma County. **High social vulnerability census tracts are identified as census tracts in the highest 25% in the County.**

Socioeconomic Status

- Below Poverty
- Unemployed
- Income
- No High School Diploma

Household Composition & Disability

- Aged 65 or Older
- Aged 17 or Younger
- Older than Age 5 with a Disability
- Single-Parent Households

Minority Status & Language

- Minority
- Speaks English “Less than Well”

Housing Type & Transportation

- Multi-Unit Structures
- Mobile Homes
- Crowding
- No Vehicle
- Group Quarters

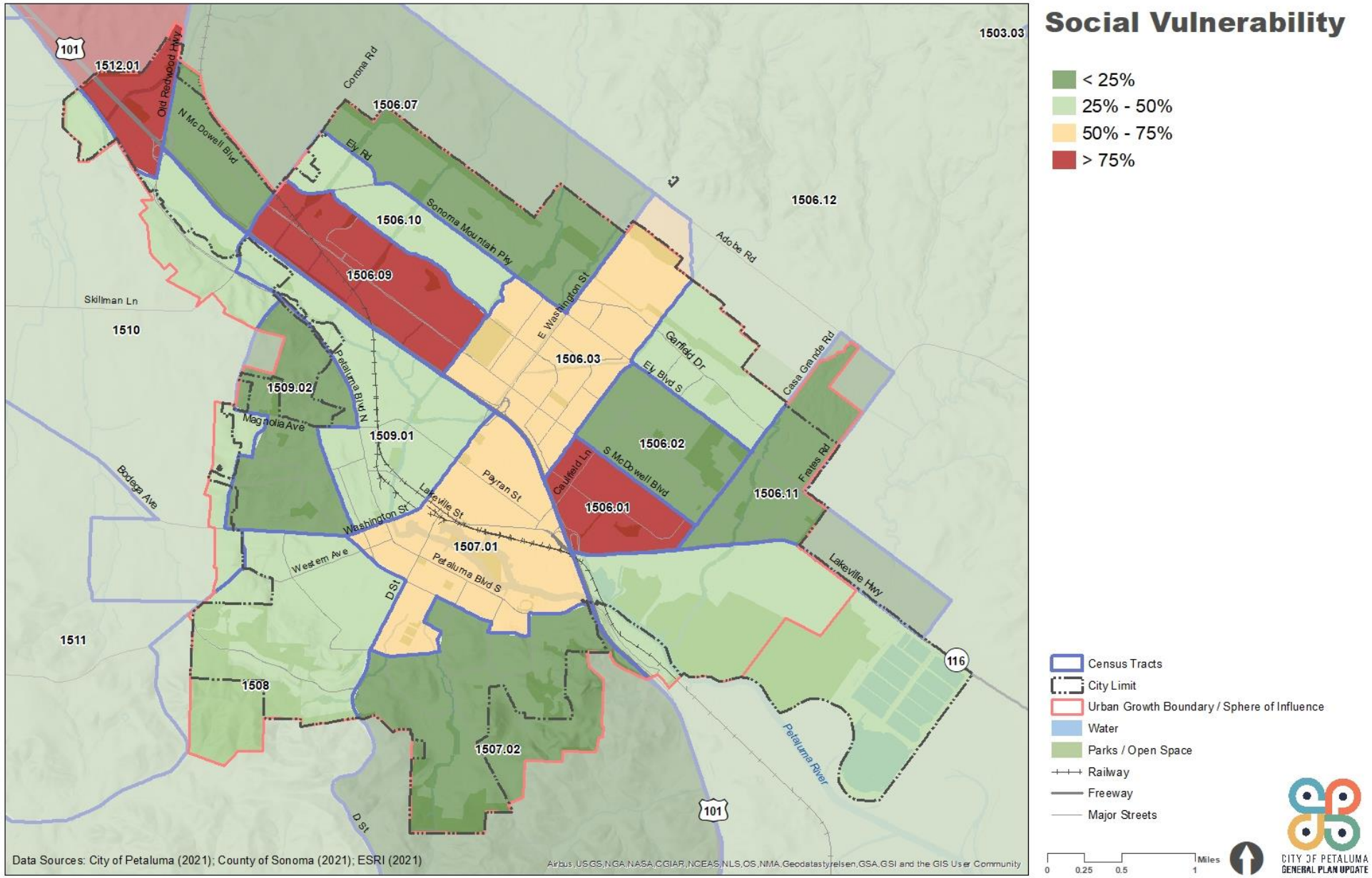
Social Vulnerability Index (2018)

Three census tracts scored within the top 25% for highest vulnerability in Sonoma County.

These tracts scored high for each of the following indicators:

- 1506.01: single-parent households, mobile homes
- 1506.09: aged 65 or older, with a disability, mobile homes
- 1512.01: mobile homes

As previously described on page 41, note that only a small portion of Tract 1512.01 (Block Group 4) is within Petaluma's boundaries and sphere of influence.



Sources: CDC, 2018

DACs Using Social Vulnerability Index

All of Petaluma's census tracts were then individually compared to each of the pollution indicators found within CalEnviroScreen 4.0.

All three identified high social vulnerability census tracts had a high pollution burden. They scored within the top 25% of census tracts in the state for the following pollution exposures: diesel PM (2 tracts), traffic impacts (3 tracts), groundwater threats (1 tract), impaired waterbodies (1 tract), and solid waste sites (2 tracts).

Census Tract	SVI Composite Index	Ozone Pctl.	PM2.5 Pctl.	Diesel Pctl.	Pesticides Use Pctl.	Toxic Release Pctl.	Traffic Impacts Pctl.	Drinking Water Contaminants Pctl.	Children's Lead Risk Pctl.	Cleanup Sites Pctl.	Groundwater Threats Pctl.	Hazardous Waste Pctl.	Impaired Waterbodies Pctl.	Solid Waste Sites Pctl.	Pollution Burden Pctl.
1506.01	78	8	16	74	0	30	78	15	40	55	65	0	52	59	39
1506.02	2	9	14	31	0	31	50	47	27	0	38	0	0	2	4
1506.03	64	8	14	50	49	31	71	50	42	25	59	0	52	0	34
1506.07	12	8	12	14	26	26	50	52	10	0	29	47	52	0	11
1506.09	85	8	14	83	42	28	78	49	9	19	31	16	52	75	44
1506.10	32	8	13	50	46	28	12	50	13	5	10	0	52	20	9
1506.11	18	9	13	38	70	32	44	50	7	0	57	47	52	12	28
1506.12	31	9	12	11	64	34	64	56	4	56	90	59	97	98	70
1507.01	71	8	14	75	42	30	79	50	58	85	89	0	52	54	71
1507.02	0	8	11	13	54	30	87	54	41	62	53	0	52	64	49
1508	46	8	10	3	43	27	6	53	52	61	56	0	52	0	17
1509.01	43	8	13	68	9	29	85	58	72	62	91	16	52	37	64
1509.02	4	8	12	38	16	29	37	63	37	43	70	0	52	20	26
1510	35	8	11	14	68	23	77	67	41	0	71	41	52	52	48
1512.01	80	8	9	29	53	17	60	74	50	66	86	44	78	87	73

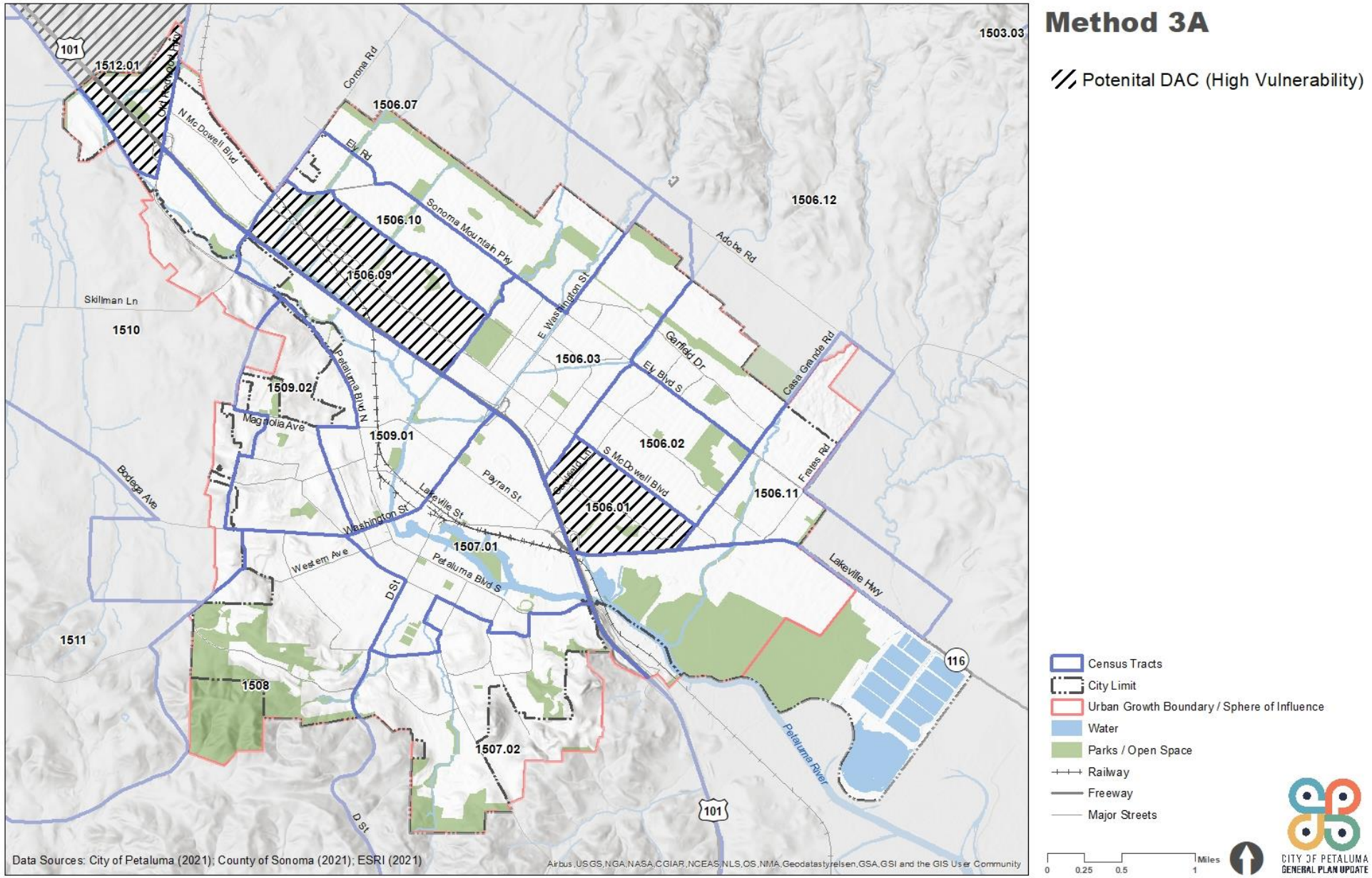
Sources: ACS, 2015-2019; CalEnviroScreen, 2021

Method 3A Results

All three high social vulnerability census tracts had a high pollution burden and, thus, can be identified as potential DACs

- 1506.01
- 1506.09
- 1512.01, Block Group 4

The census tracts scored within the top 25% of census tracts in the state for the following pollution exposures or environmental effects: diesel PM, traffic impacts, groundwater threats, impaired waterbodies, and solid waste sites.



Method 3B

This section describes the results of the analysis for Method 3B.

For this method, the General Plan Team first identified census tracts and/or block groups that were low income or had a high social vulnerability score. These geographies were then compared to additional indicators of health outcomes, built environment conditions, and environmental conditions.

State guidance recommends analysis for each of the following EJ policy areas: Pollution Exposure, Food Access, Physical Activity, Public Facilities, and Housing. The Petaluma General Plan Update Team also recommends adding Health Outcomes as a topic to determine the presence of DACs. The information below lists the specific indicators used in the analysis.

Health Outcomes
- Life expectancy at birth
- Adult asthma rate
- Asthma hospitalization rate
- Adult heart disease rate
- Heart disease hospitalization rate
- Infant low birth weight rate
- Adult obesity rate

Pollution Exposure
- Proximity to high-volume roadways

Food Access
- Access to healthy food
- Food insecurity

Physical Activity
- Adult walking rates
- Active commuting rates

Public Facilities
- Proximity to high-frequency transit
- Access to parks
- Tree canopy

Housing
- Cost-burdened households
- Overcrowded households

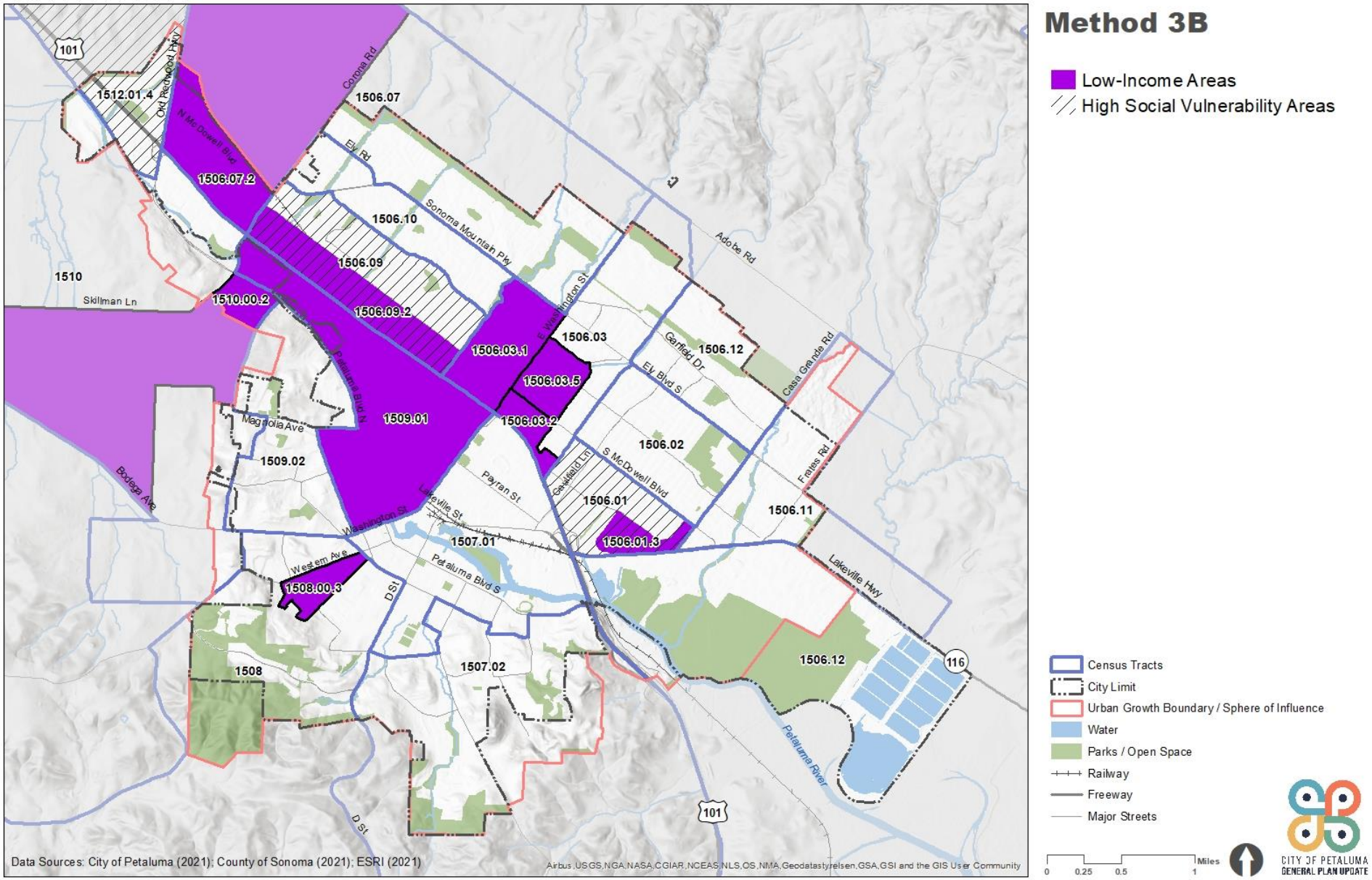
Method 3B Thresholds

- For certain Method 3B indicators, the 75th percentile threshold was used as in Methods 2 and 3A. For example, census tracts that scored at or above the 75th percentile for asthma emergency room visits, in comparison to all other census tracts in the state, were considered disproportionately burdened for that indicator.
- Other Method 3B indicators denote positive health benefits, such as tree canopy coverage. For these indicators, being at or below the 25th percentile was used to denote lack of access and disproportionate burden.
- Moreover, not all data was available in percentile-rank form. For certain Method 3B indicators, the General Plan Team used standards commonly used in the field of planning, such as 10-minute walksheds from parks and open space.
- Finally, **for five of the Method 3B indicators, it was infeasible to compare Petaluma's census tracts with all other census tracts in California**, because this tract-level data was not available for the entire state. These indicators were included in this report to provide additional health information; however, **they were not used to determine disproportionate burden and to identify potential DACs.** These five Method 3B indicators that are solely informational include: adult asthma rate, adult heart disease rate, adult obesity rate, food insecurity, and adult walking rates.

Low Income and/or High Social Vulnerability Areas

Combining all the previous Methods 1, 2, and 3A, **there are 10 census tracts or block groups that are low-income or have high social vulnerability.** Two areas are both low-income and scored high for social vulnerability.

These areas were then compared to the data from the additional indicators of health outcomes, built environment conditions and environmental conditions. The following maps in Method 3B show the outlines for these low-income and high social vulnerability areas in comparison to these additional data indicators.

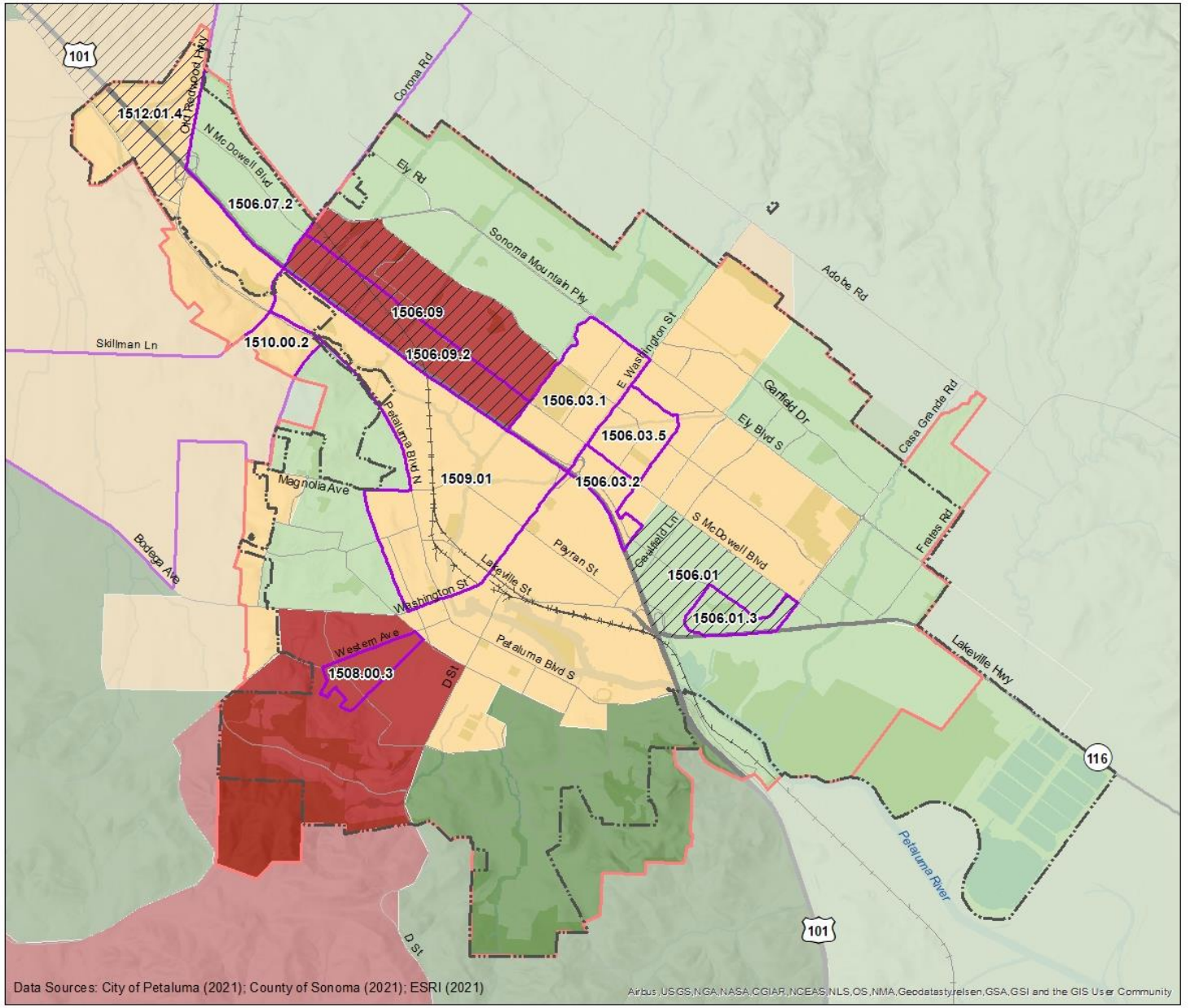


Health Outcomes: Life Expectancy

This map shows life expectancy at birth, in comparison to the rest of the state. The higher the percentile values, the higher the life expectancy. (Note: this is the opposite of most other indicators.)

Two low-income and/or high social vulnerability areas (Tract 1506.09, and 1508 Block Group 3) scored at or below the 25th percentile for life expectancy. Thus, these areas have a disproportionately low life expectancy and can be considered potential DACs.

(Data from 2010)



Note: For each legend row, the first number is the percentile rank, and the second number in parentheses is the life expectancy in years.

Note: For all the following Method 3B maps, only low-income and high social vulnerability areas are labeled on the map.

Sources: Healthy Places Index, 2021

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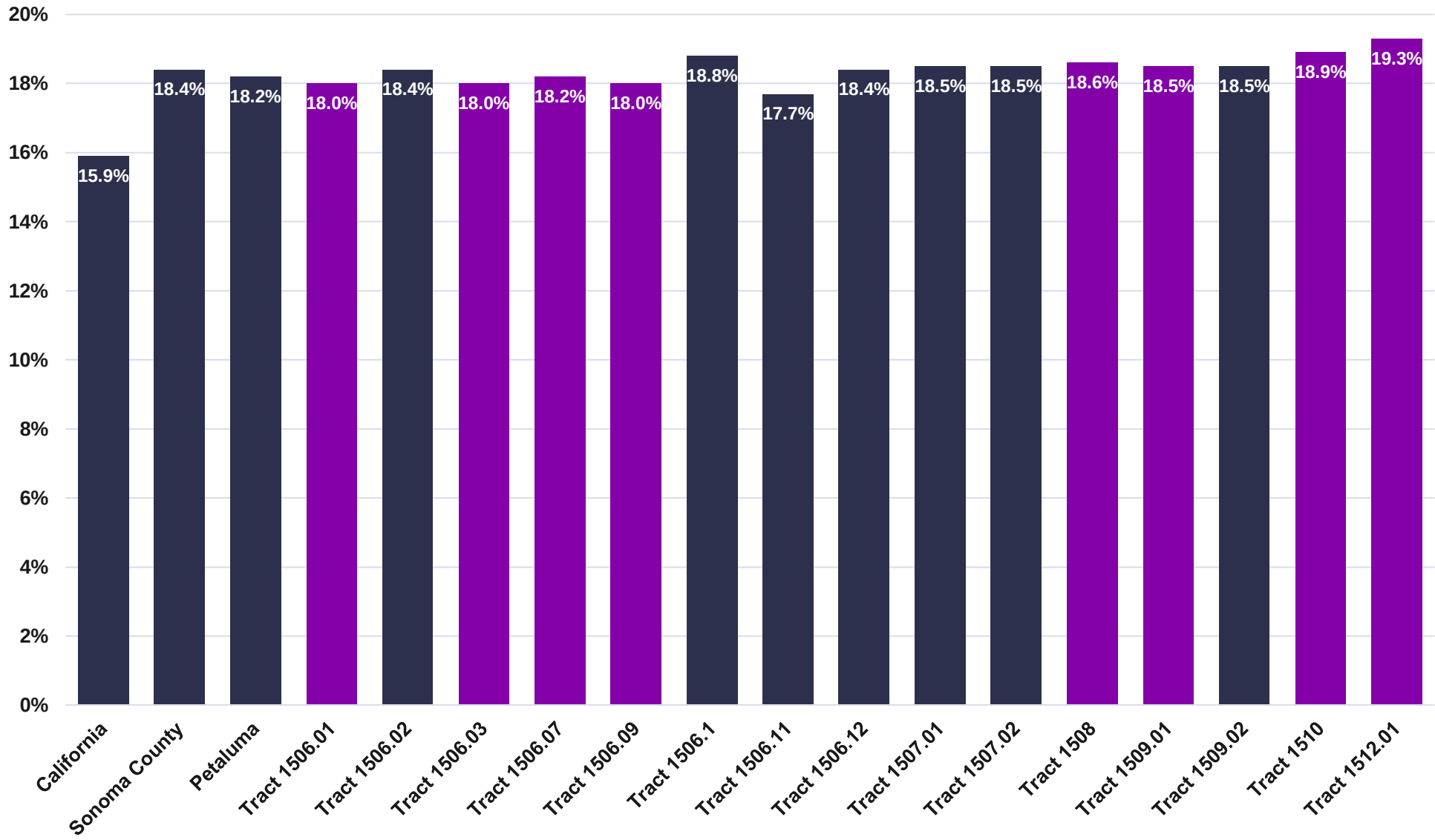
Health Outcomes: Adult Asthma Diagnosis

This chart shows the percent of adults who have ever been diagnosed with asthma by a physician.

All census tracts in Petaluma, including the low-income and/or high social vulnerability areas, are above the state average adult asthma rate of 15.9%. However, there are minimal disparities within Petaluma for adult asthma diagnosis.

As described on page 71, data limitations prevent determining disproportionate burden for this indicator.

(Data from 2018)



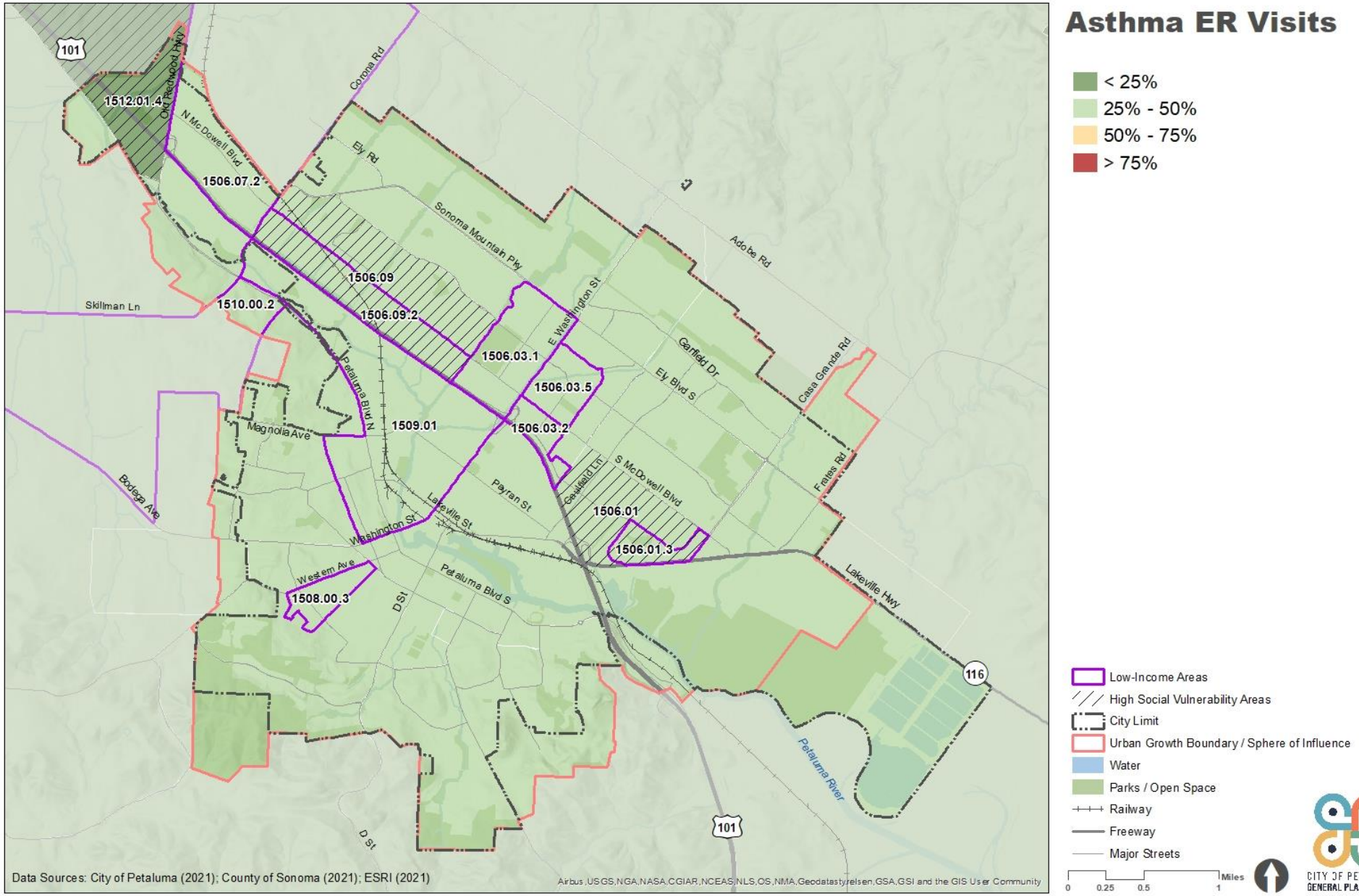
Sources: California Health Interview Survey

Health Outcomes: Asthma ER Admissions

This indicator measures the age-adjusted rate of emergency room (ER) visits for asthma per 10,000 people (averaged over three years), in comparison to the rest of the state.

The majority of Petaluma has asthma ER rates far below the 75th percentile. Therefore, there are no low-income and/or high social vulnerability areas with a disproportionately high rate of asthma ER visits.

(Data from 2015-2017)



Sources: CalEnviroScreen, 2021

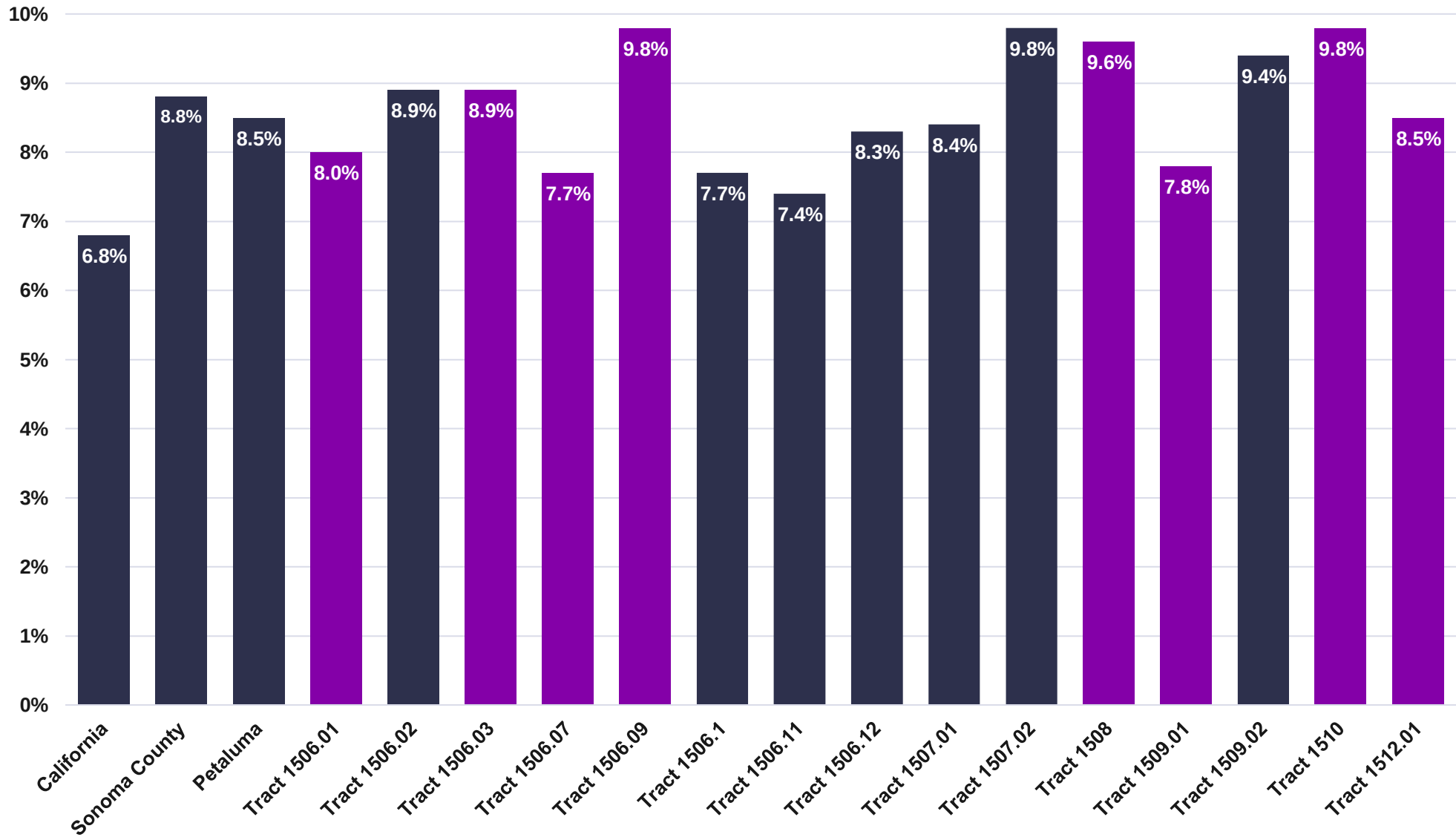
Health Outcomes: Heart Disease Diagnosis

This chart shows the percent of adults who have ever been diagnosed with heart disease by a physician.

All census tracts in Petaluma, including the low-income and/or high social vulnerability areas, are above the state average adult heart disease rate of 6.8%. Moreover, there are also disparities within Petaluma for adult heart disease diagnosis.

As described on page 71, data limitations prevent determining disproportionate burden for this indicator.

(Data from 2018)



Sources: California Health Interview Survey

Health Outcomes: Heart Disease ER Admissions

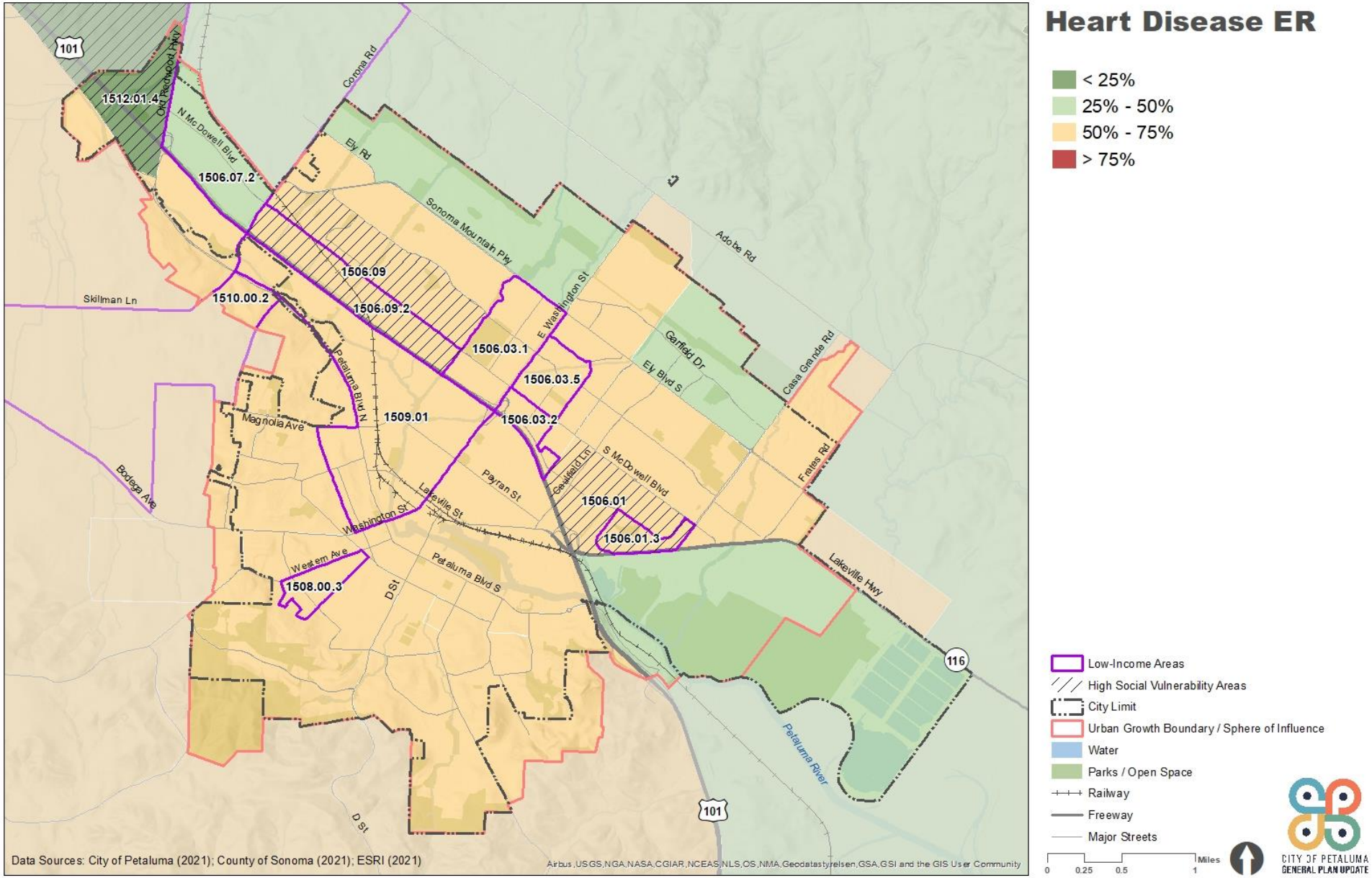
This indicator shows the age-adjusted rate of emergency room (ER) visits for acute myocardial infarctions per 10,000 (averaged over three years), in comparison to the rest of the state.

The entire city is below the 75th percentile threshold. Therefore, there are no low-income and/or high social vulnerability areas with a disproportionately high rate of heart disease ER admissions.

While positive, the data indicates that most of Petaluma has higher than average ER admission rates. This may be a topic of citywide concern.

(Data from 2015-2017)

Sources: CalEnviroScreen, 2021



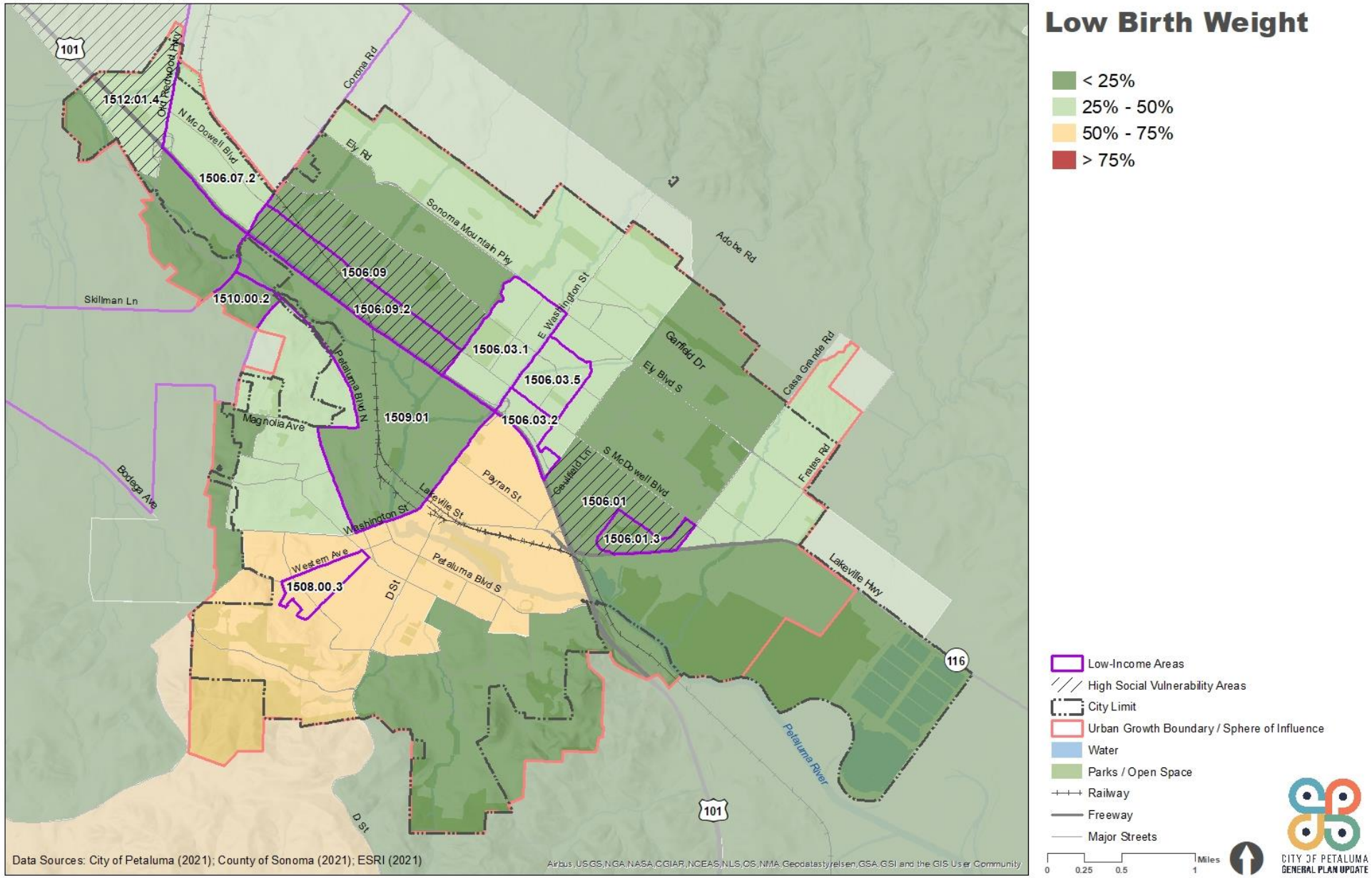
Health Outcomes: Low Birth Weight Infants

This indicator shows the percent of infants born weighing less than 2,500 grams (about 5.5 pounds), in comparison to the rest of the state.

Most of the city is in the lowest 25th percentile in the state, and there are no areas above the 75th percentile threshold.

Therefore, there are no low-income and/or high social vulnerability areas that have a disproportionately high rate of low birth weight among infants.

(Data from 2009-2015)



Sources: CalEnviroScreen, 2021

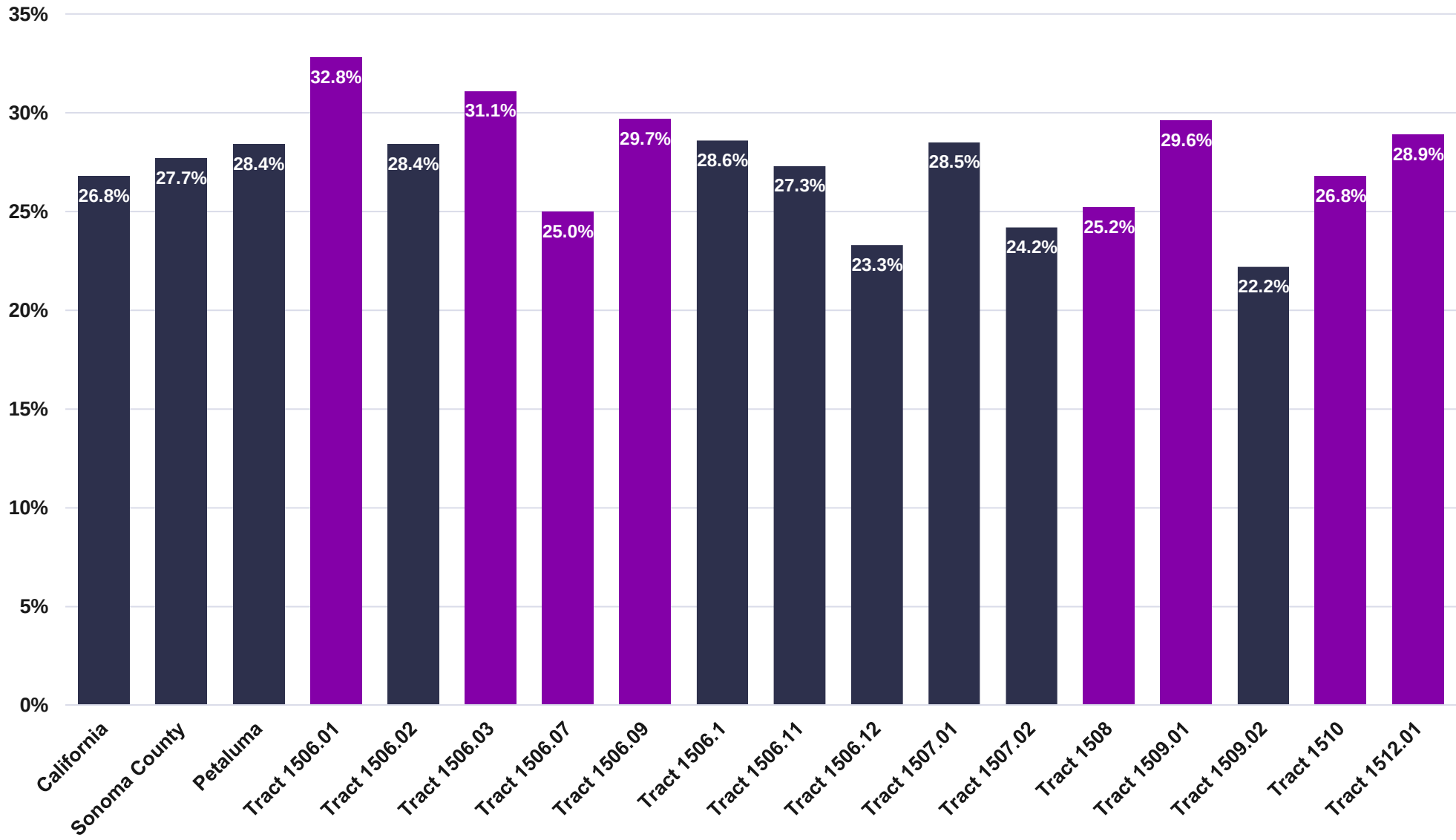
Health Outcomes: Obesity

This chart shows the percent of adults who had a body mass index (BMI) of 30.0 or above.

Five low-income and/or high social vulnerability areas are above the state average adult obesity rate of 26.8%. Moreover, there are also wide disparities within Petaluma for adult obesity diagnosis.

As described on page 71, data limitations prevent determining disproportionate burden for this indicator.

(Data from 2018)



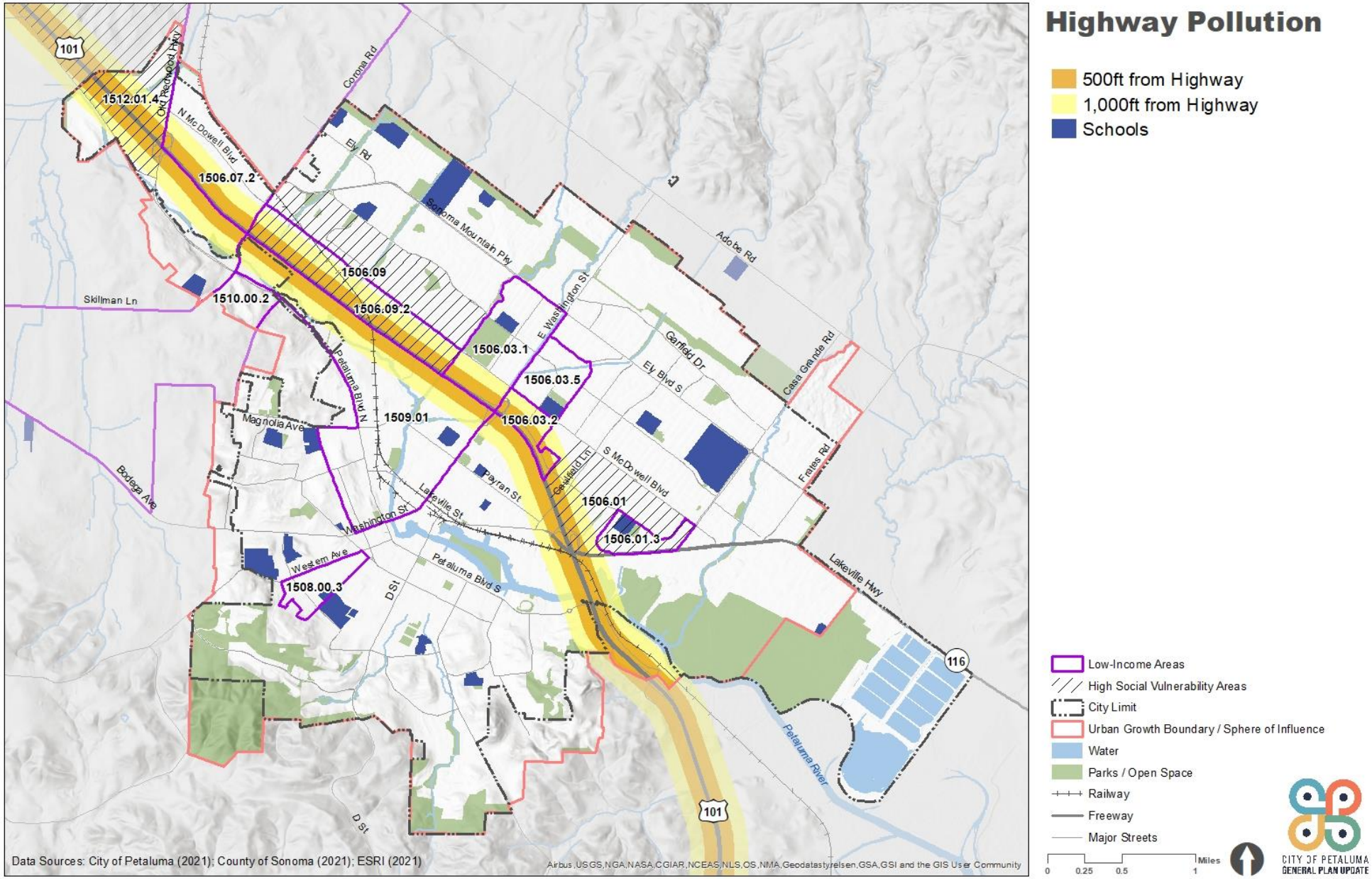
Sources: California Health Interview Survey

Pollution Exposure: High-Volume Roadways

Traffic-related air pollution is highest within 500 feet of a highway. If downwind, high pollution levels can reach up to 1,000 feet. Areas within 500 and 1,000 feet are shown on the map.

Eight low-income and/or high social vulnerability areas overlap with the 1,000 ft buffer of Highway 101, which is the highest volume roadway in Petaluma. In particular, two low-income block groups are almost completely within the 1,000 ft buffer and, thus, have greater exposure. Therefore, these areas have a disproportionately high burden for highway-related air pollution.

Sources: Raimi + Associates



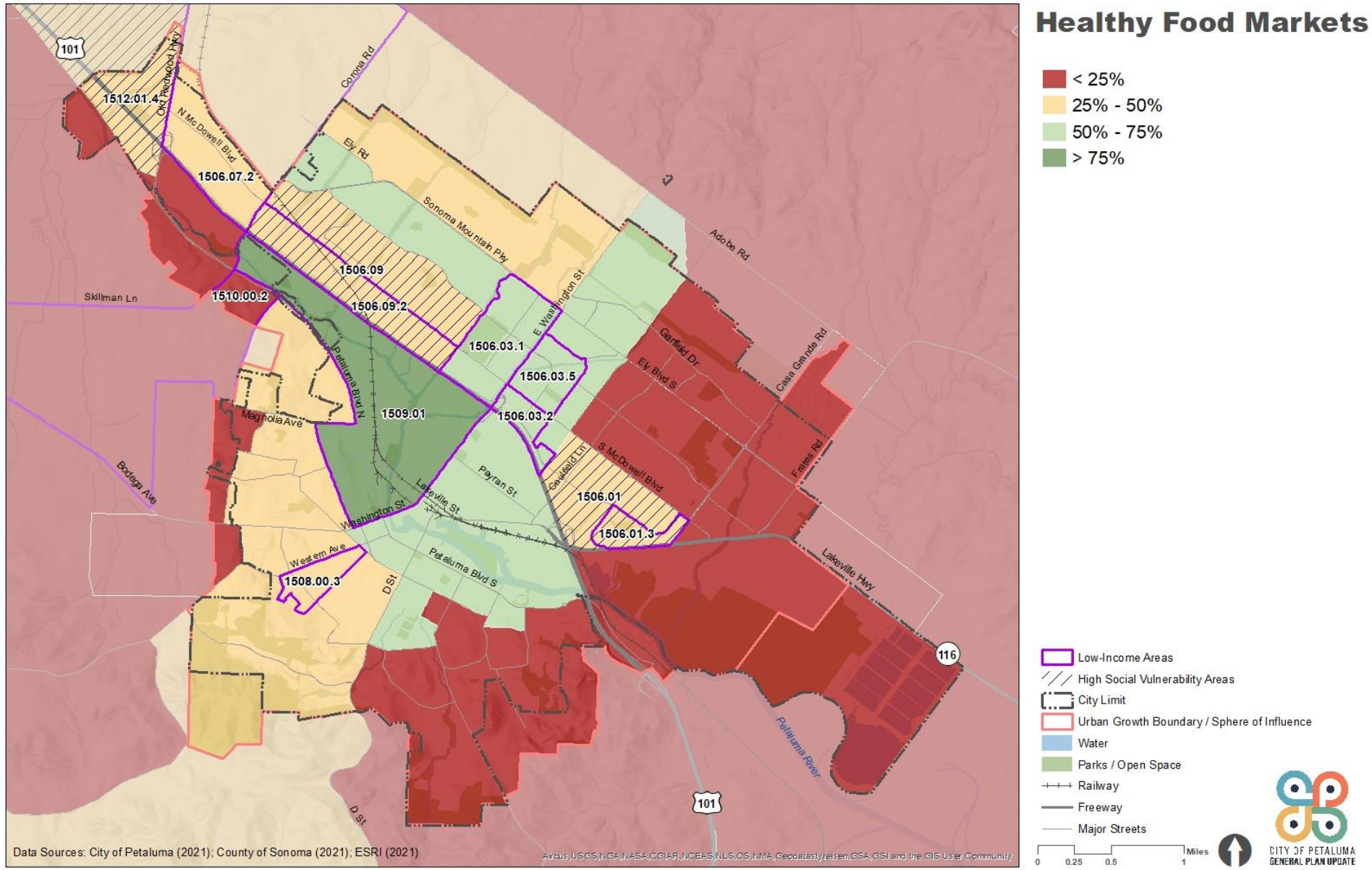
Food Access: Healthy Food Markets

Access to a supermarket or grocery store is critical for a healthy community as areas without access tend to have poorer health outcomes. This indicator measures the percent of residents living within a ½ mile from a supermarket or large grocery store, in comparison to the rest of the state. The higher the percentile values, the greater the access to healthy food markets. (Note: this is the opposite of most other indicators.)

One low-income area (1510 Block Group 2) is below the 25th percentile threshold. Thus, this area has a disproportionately low healthy food access and can be considered a potential DAC.

(Data from 2015)

Sources: Healthy Places Index, 2021



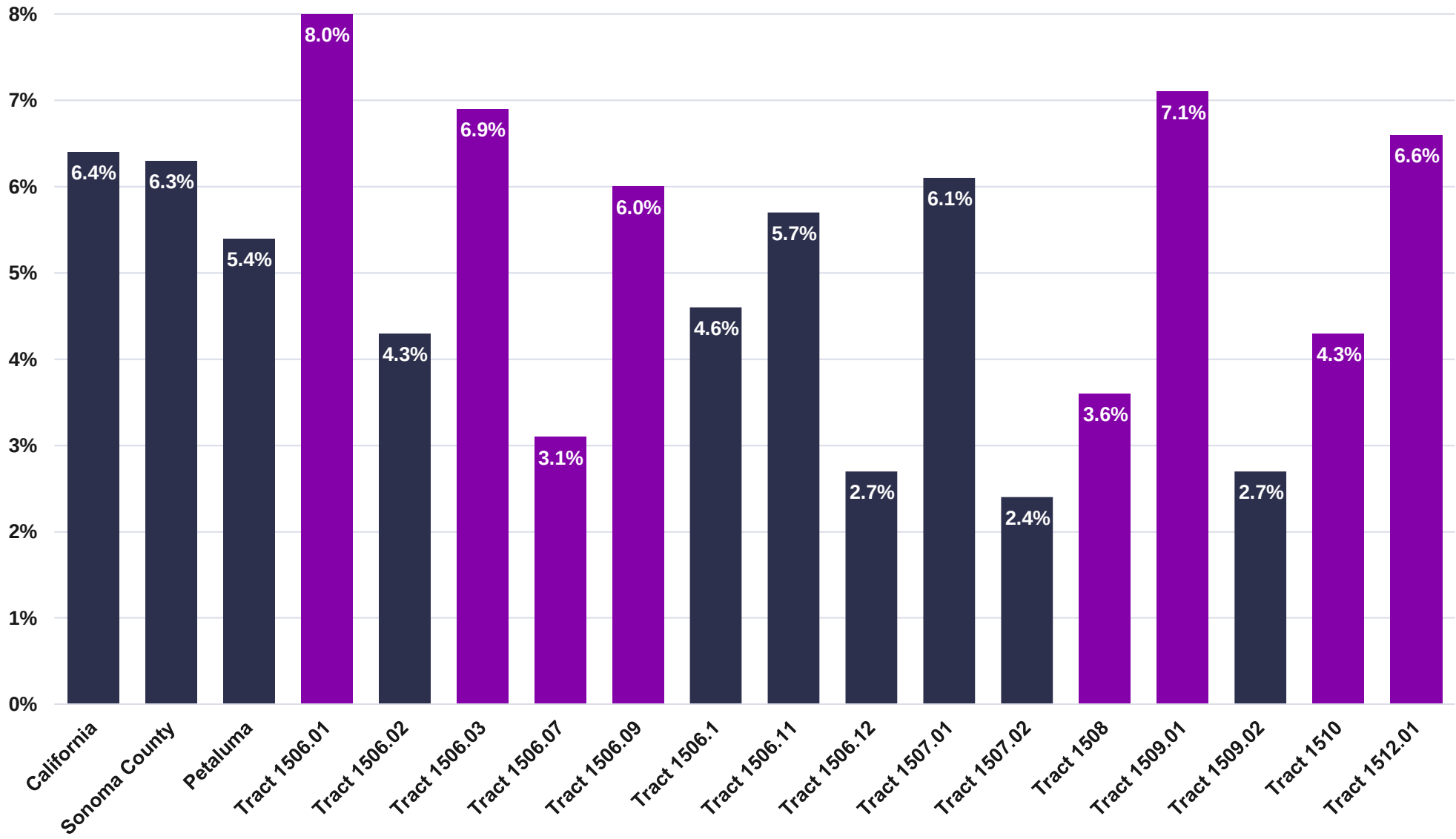
Food Access: Food Insecurity

This chart shows the percent of adults who are low-income food insecure, which is defined as a lack of consistent access to enough food for an active, healthy life.

Four low-income and/or high social vulnerability areas are above the state average adult food insecure rate of 6.4%. Moreover, there are also wide disparities within Petaluma for food insecurity.

As described on page 71, data limitations prevent determining disproportionate burden for this indicator.

(Data from 2018)



Sources: California Health Interview Survey

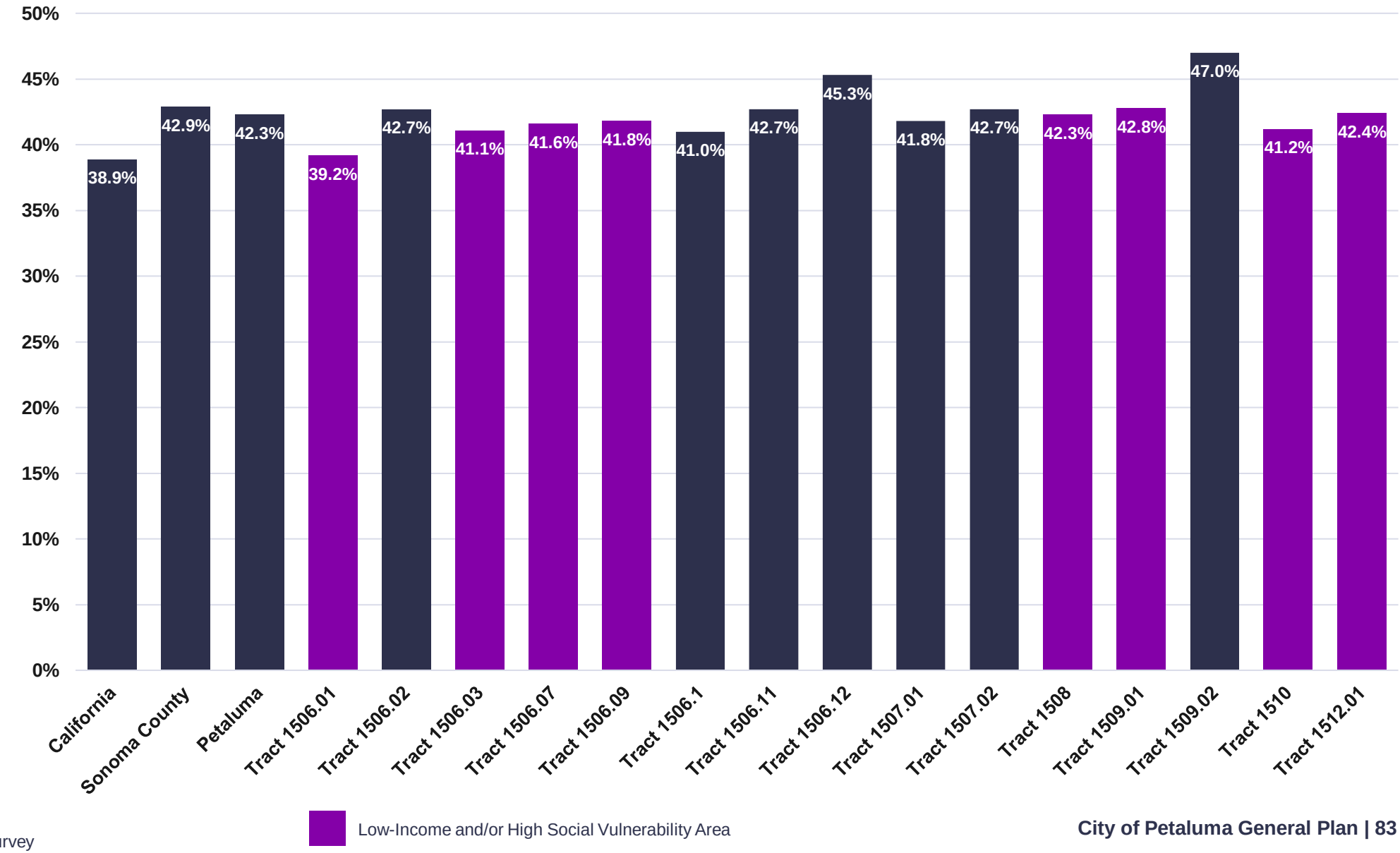
Physical Activity: Adult Walking

This chart shows the percent of adults who walked for transportation or leisure for at least 150 minutes in the past week.

No census tracts in Petaluma, including the low-income and/or high social vulnerability areas, are below the state average adult walking rate of 38.9%. However, there are some disparities within Petaluma for adult walking rates.

As described on page 71, data limitations prevent determining disproportionate burden for this indicator.

(Data from 2016)



Sources: California Health Interview Survey

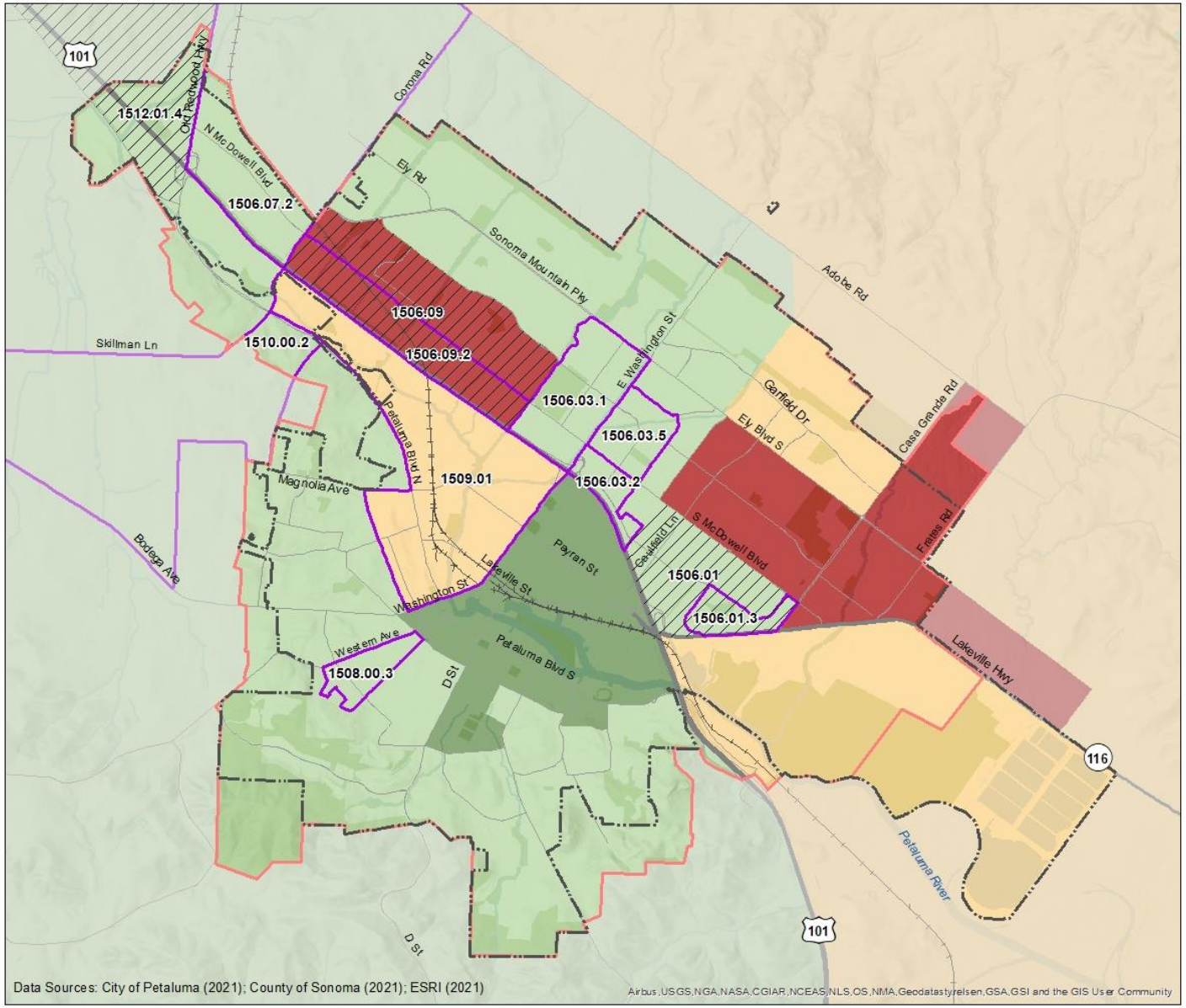
Physical Activity: Active Commuting

Regular physical activity through active commuting is tied to positive health outcomes. This map shows the percent of workers (age 16+) who walk, bike, or take transit to work in comparison to the rest of the state. The higher the percentile values, the higher the rates of active commuting. (Note: this is the opposite of most other indicators.)

The statewide average active commuting rate is 8.9%, while the Sonoma County average active commuting rate is 5.6%.

One low-income and high social vulnerability area (Tract 1506.09) is below the 25th percentile. Thus, this area has a disproportionately low rate of physical activity from active commuting and can be considered a potential DAC.

(Data from 2015-2019)



Active Commuting

- < 25% (< 2.5%)
- 25% - 50% (2.5% - 5.2%)
- 50% - 75% (5.2% - 10.5%)
- > 75% (> 10.5%)

Note: For each legend row, the first number is the percentile rank, and the second number in parentheses is the active commuting rate.

- Low-Income Areas
- High Social Vulnerability Areas
- City Limit
- Urban Growth Boundary / Sphere of Influence
- Water
- Parks / Open Space
- Railway
- Freeway
- Major Streets

0 0.25 0.5 1 Miles

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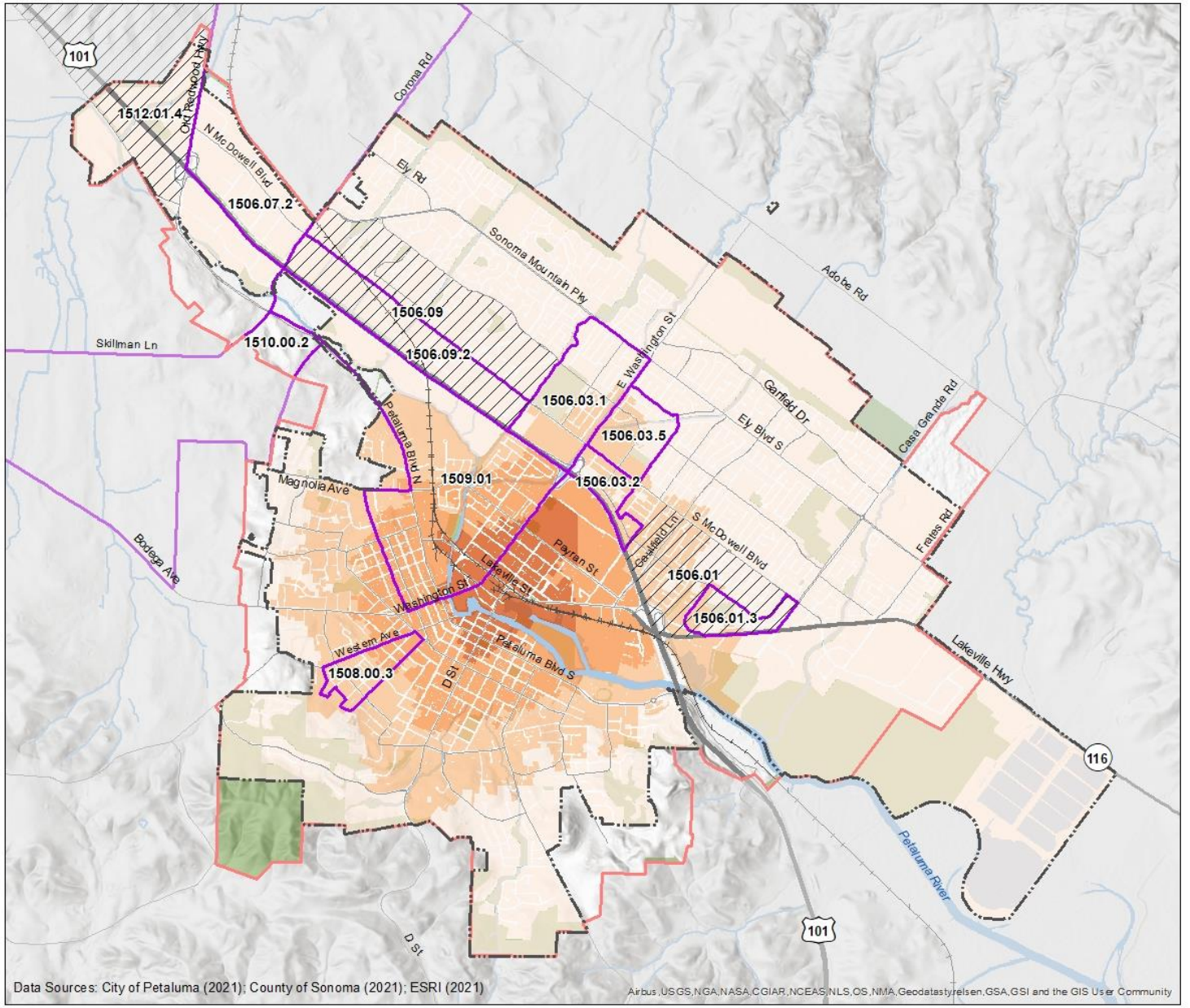
Sources: ACS, 2015-2019

Public Facilities: Proximity to High-Frequency Transit

This map shows the walking time to the nearest high-frequency transit stop defined as service frequencies of 15 minutes or less. “Burden” is defined as a walking distance of greater than 20 minutes to a high-frequency transit stop.

All but two of the low-income and/or high social vulnerability areas are further than 20 minutes from high frequency transit service. Therefore, these areas have low access to high-frequency transit and can be considered potential DACs. Note that the planned Corona Road train station will help to improve transit access in North Petaluma. *(Data from 2021)*



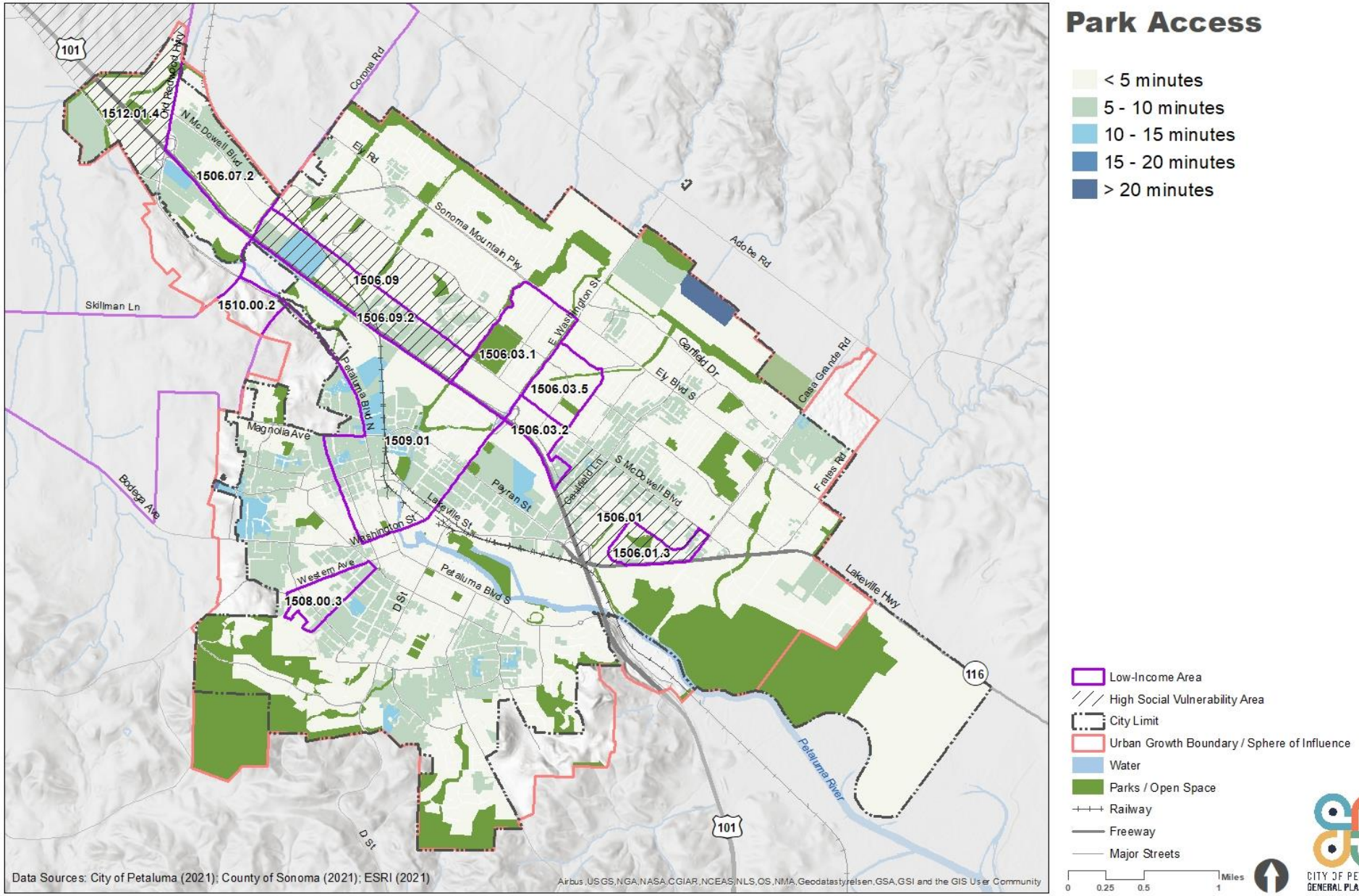
Sources: UrbanFootprint, 2021

Public Facilities: Access to Parks

Access to parks is an important indicator of physical activity as people who live near parks tend to exercise more. This map shows the walk time to the nearest park. Most neighborhoods in Petaluma are within a 10-minute walk of a park, which is considered high park access. Additionally, there are no areas that are more than a 20-minute walk to a park, which is considered poor access for an urban area.

Thus, no low-income and/or high social vulnerability areas have poor park access.

Sources: UrbanFootprint, 2021



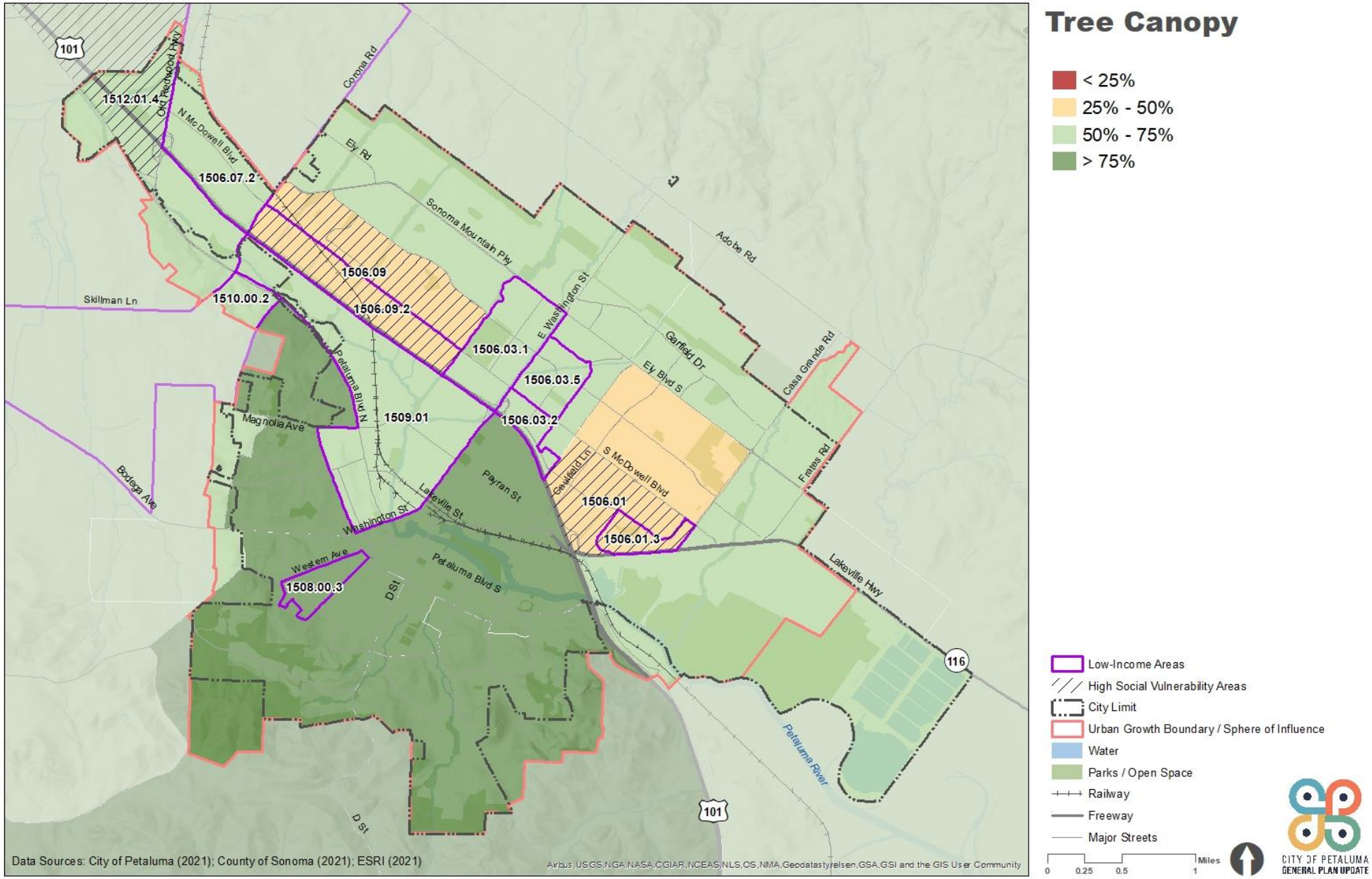
Public Facilities: Tree Canopy

A healthy tree canopy is important for reducing local levels of air pollution and mitigating the urban heat island. This indicator measures the percentage of census tract area with tree canopy, in comparison to the rest of the state. The higher the percentile values, the greater the amount of tree canopy. (Note: this is the opposite of most other indicators.)

No low-income and/or high social vulnerability areas are at or below the 25th percentile for tree canopy in the state.

(Data from 2011)

Sources: Healthy Places Index, 2021



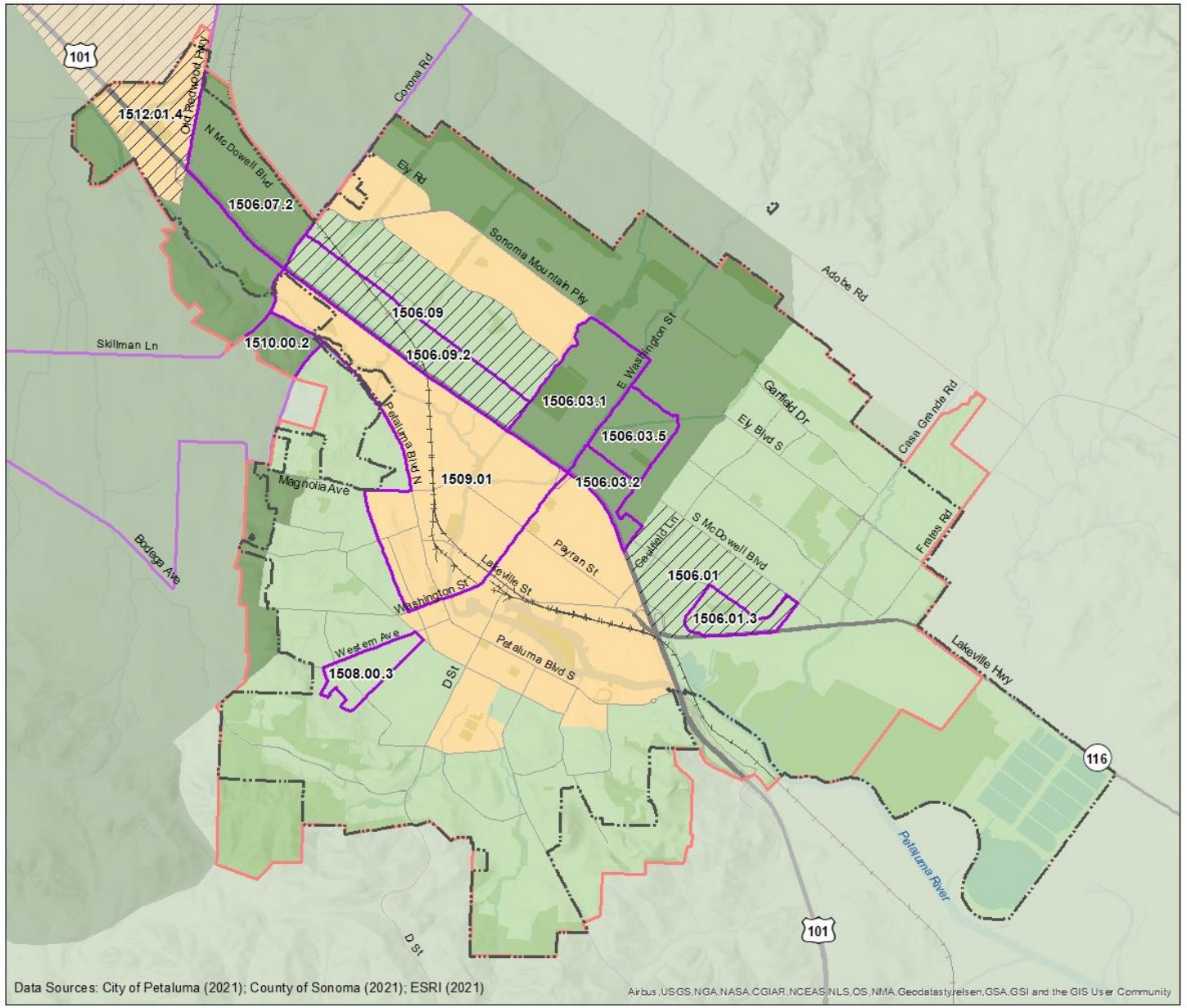
Housing: Cost-Burden

Households who are cost-burdened are less able to afford healthy foods, medicines, and healthcare visits. This map shows the percent of households paying more than 30% of income on housing in comparison to the rest of the state.

About 41% of households statewide and about 39% of households in Sonoma County are considered “cost-burdened.”

No low-income and/or high social vulnerability areas are at or above the 75th percentile for cost-burden in the state, however, there are still high levels of cost-burden in these areas and throughout the city.

(Data from 2015-2019)



Sources: ACS, 2015-2019

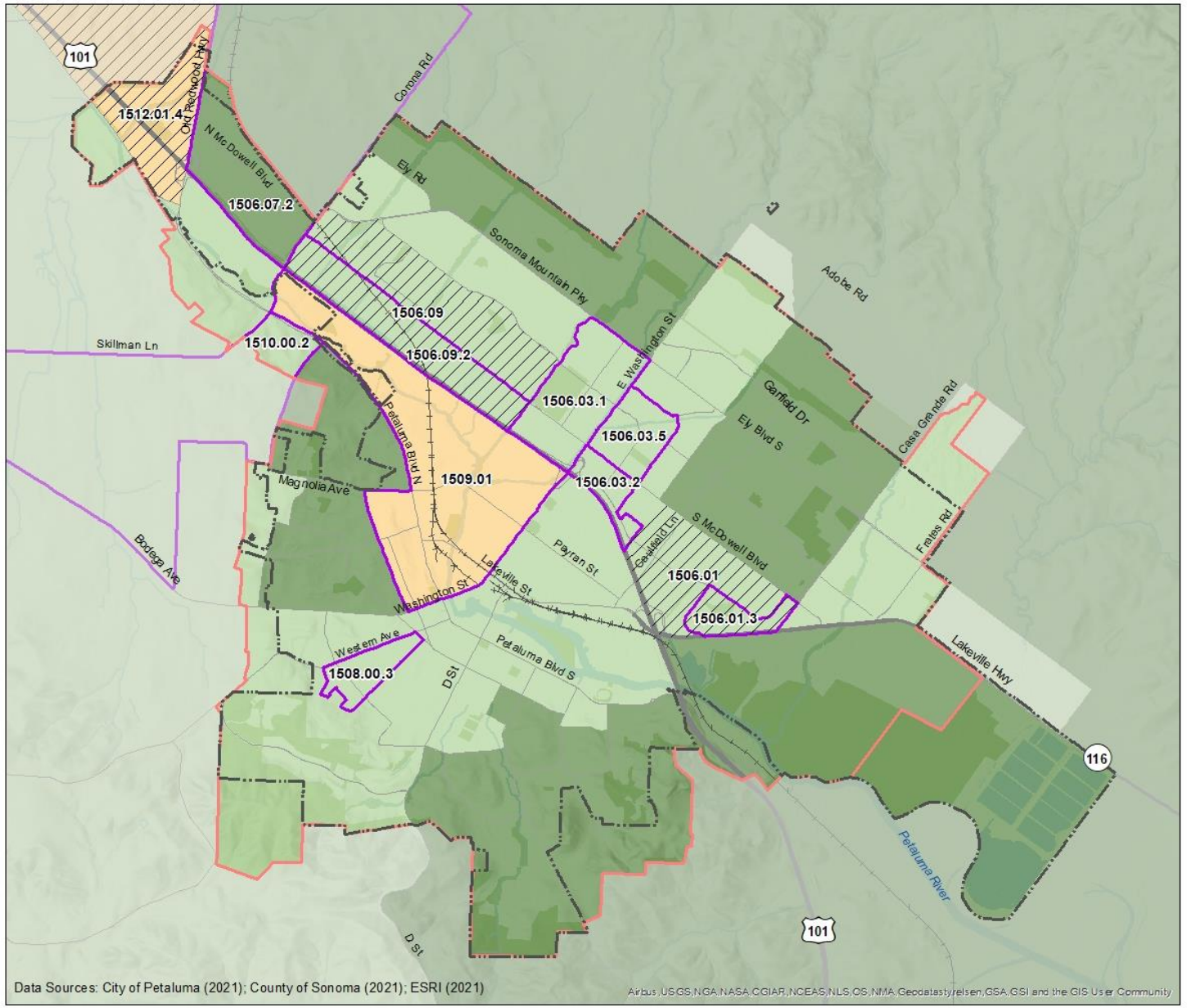
Housing: Overcrowding

Overcrowding is closely tied to poorer health outcomes from infectious diseases and psychological stress. This map shows the percent of overcrowded households (more than 1 person per room), in comparison to the rest of the state.

About 9.1% of households statewide and about 5.2% of households in Sonoma County are overcrowded.

No low-income and/or high social vulnerability areas are at or above the 75th percentile for overcrowding in the state.

(Data from 2015-2019)



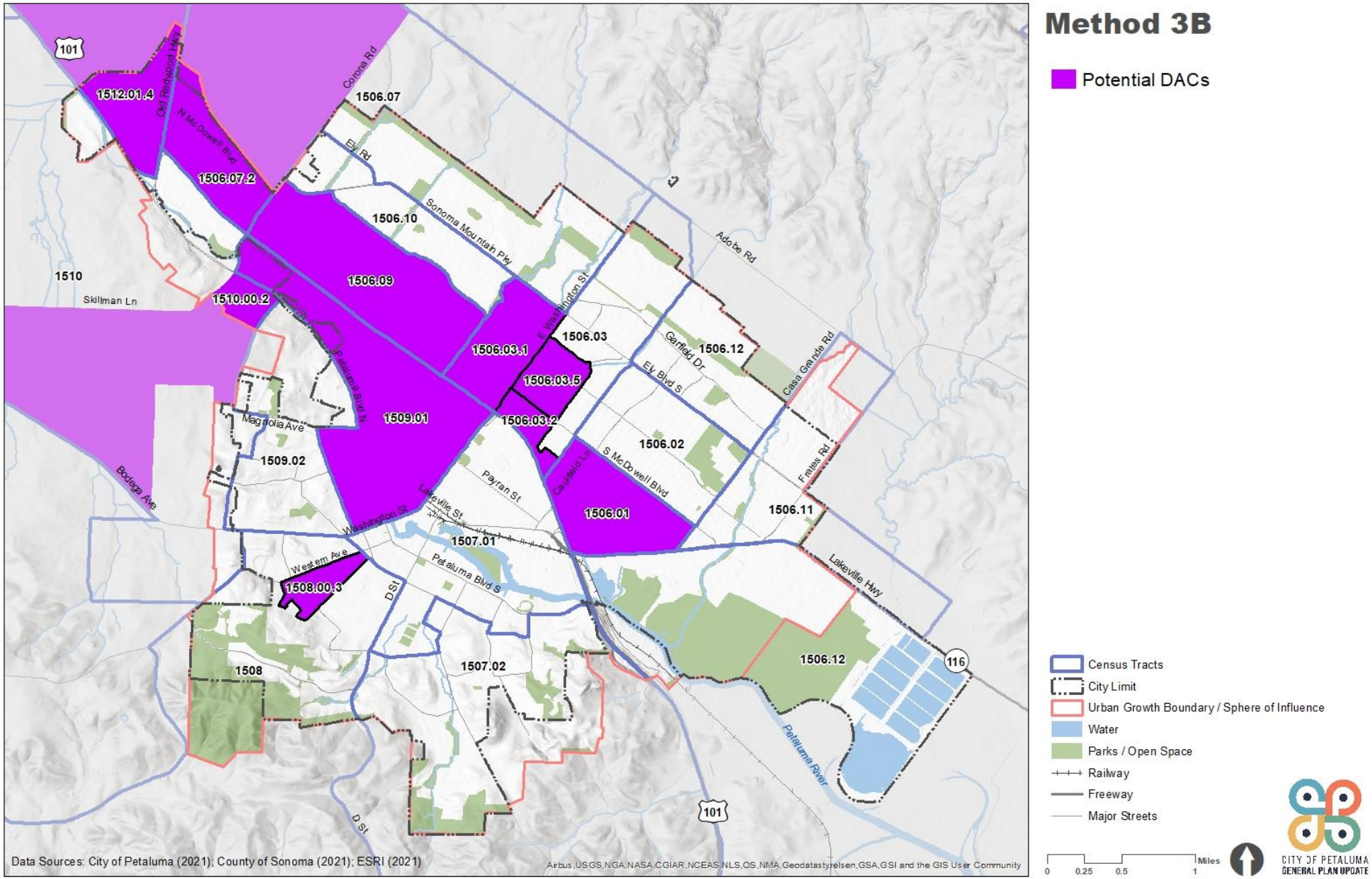
Sources: ACS, 2015-2019

Method 3B Results

All the low-income and/or high social vulnerability areas had at least one health and environmental burden.

They scored above established thresholds of disproportionate burden for the following indicators: life expectancy, proximity to highway-related air pollution, access to healthy food markets, active commuting, and proximity to high-frequency transit.

Therefore, all of these census tracts and block groups are potential DACs.



Summary of Results

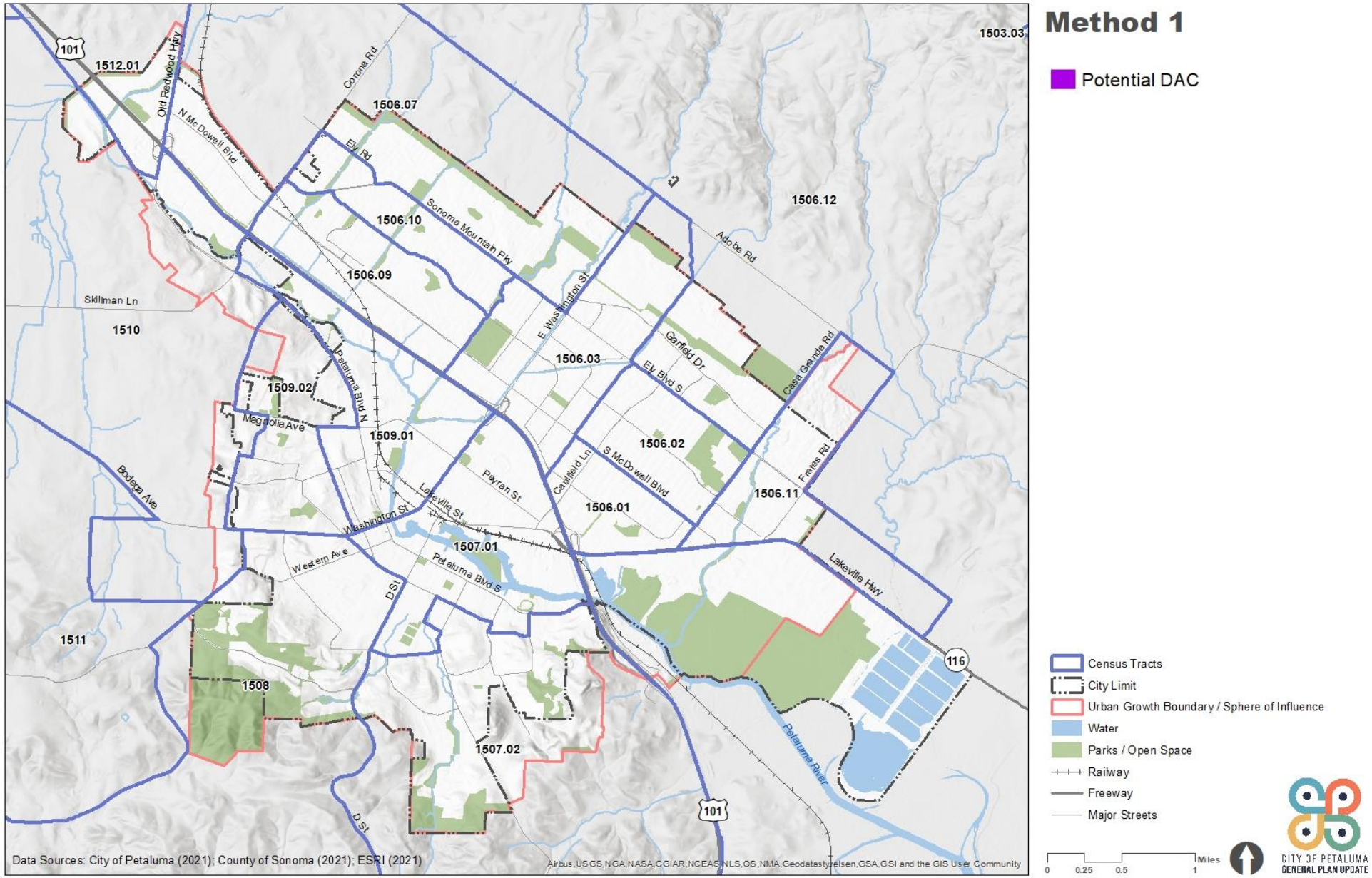
CITY OF
PETALUMA GENERAL PLAN

Section Overview

- This section provides a summary of the identified potential DACs from Methods 1, 2, and 3 (A and B).
- Based on the combined results from all methods, this section also provides an additional analysis of the demographic and land use conditions for each of the identified potential DACs in Petaluma. The summary analysis helps to define potential recommended DACs for the General Plan's Environmental Justice Element.
- As noted at the beginning of this report, all areas identified as DACs by this Health and Environmental Justice analysis should be verified through a community engagement process (Step 2 of an Environmental Justice Element) to confirm the presence of the health or environmental issue.

Method 1 Results

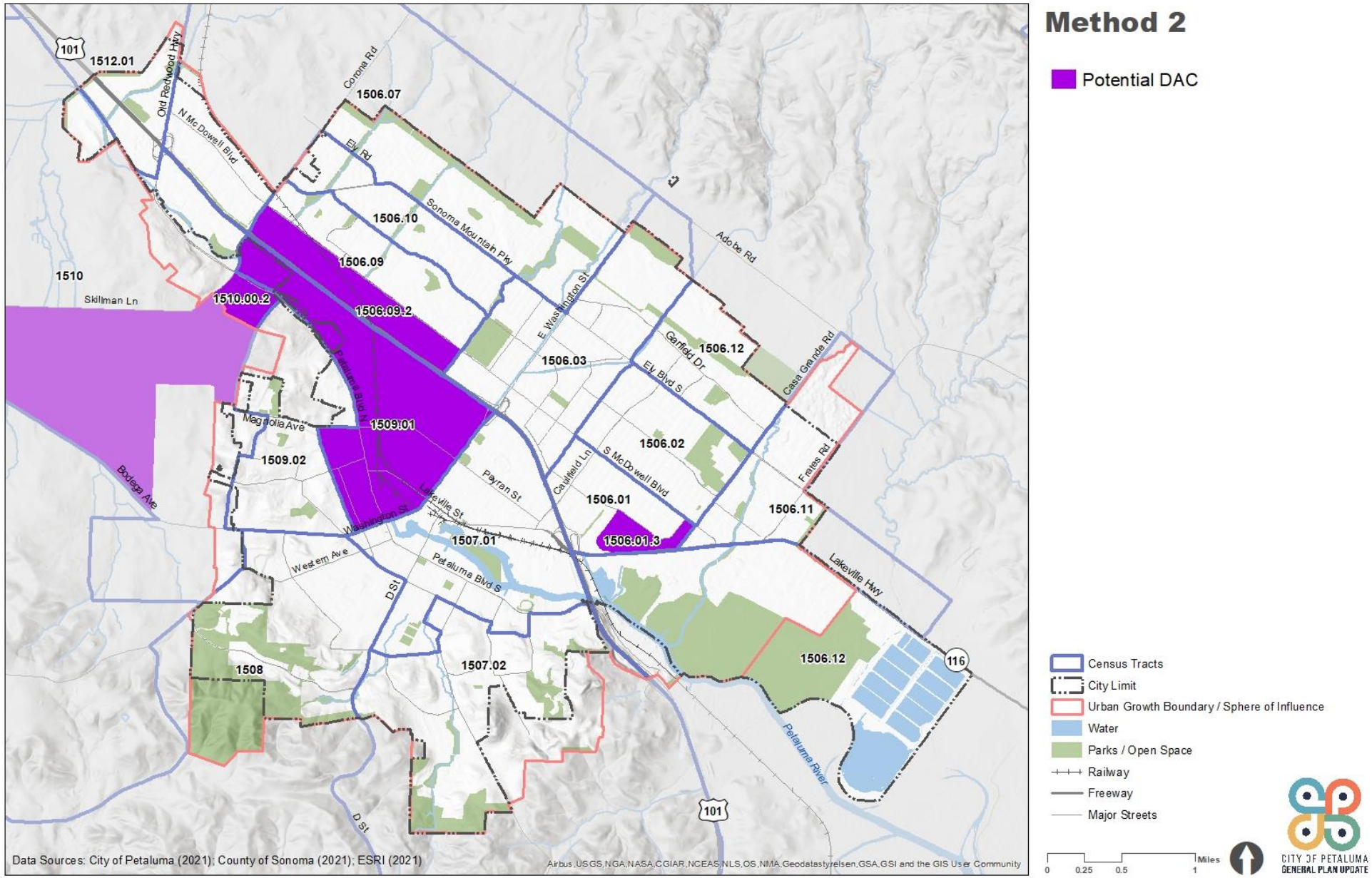
There are no census tracts in Petaluma with an overall CalEnviroScreen 4.0 index score at or above the 75th percentile. Therefore, no potential DACs were identified from Method 1.



Method 2 Results

Combining the two spatial layers of analysis (census tract and block group), **4 low-income areas were identified as potential DACs,** because of their high potential pollution burden.

- Tract 1509.01
- 1506.01, Block Group 3
- 1506.09, Block Group 2
- 1510.00, Block Group 2

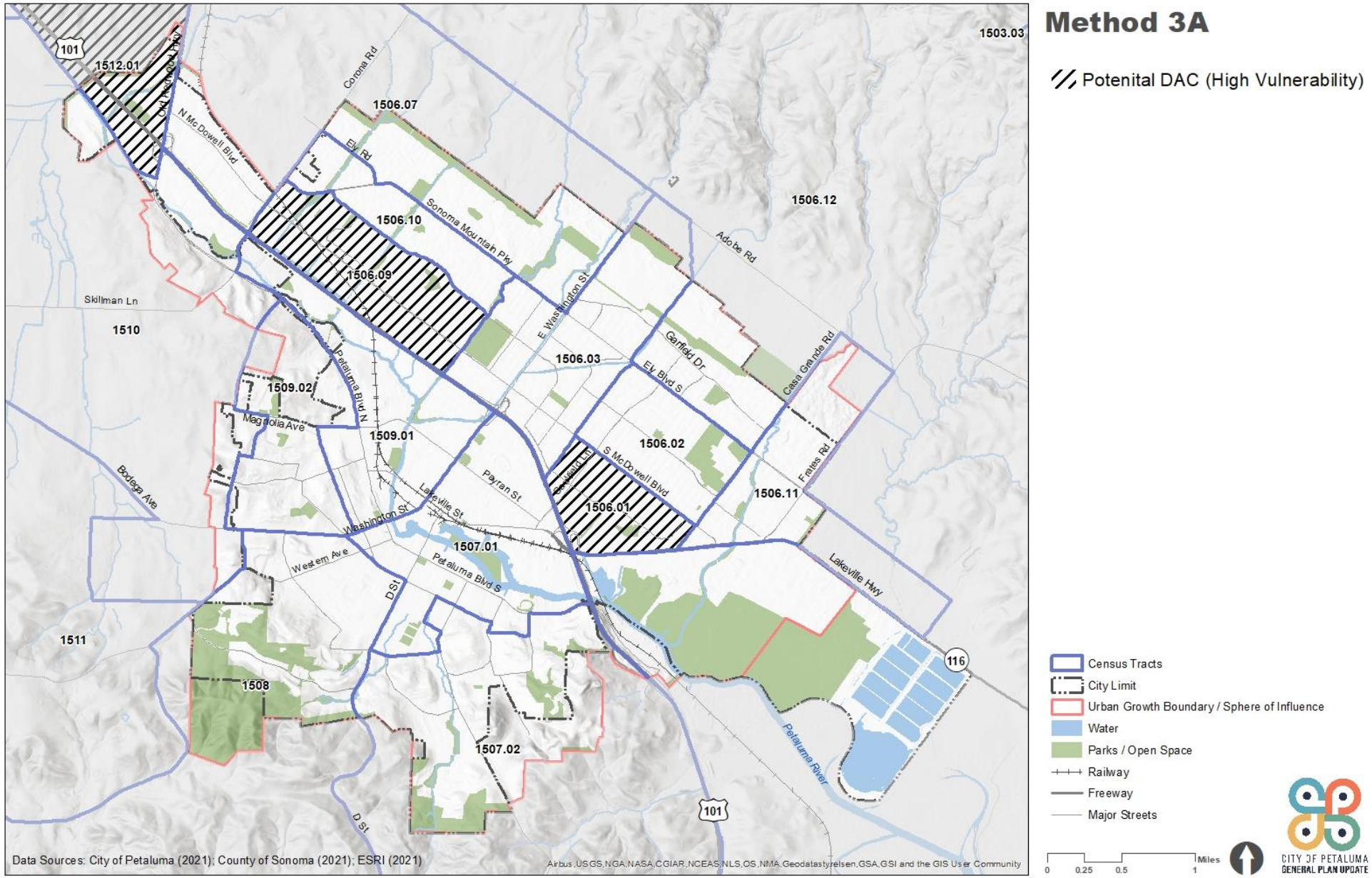


Method 3A Results

3 high social vulnerability census tracts had a high potential pollution burden and, thus, were identified as potential DACs

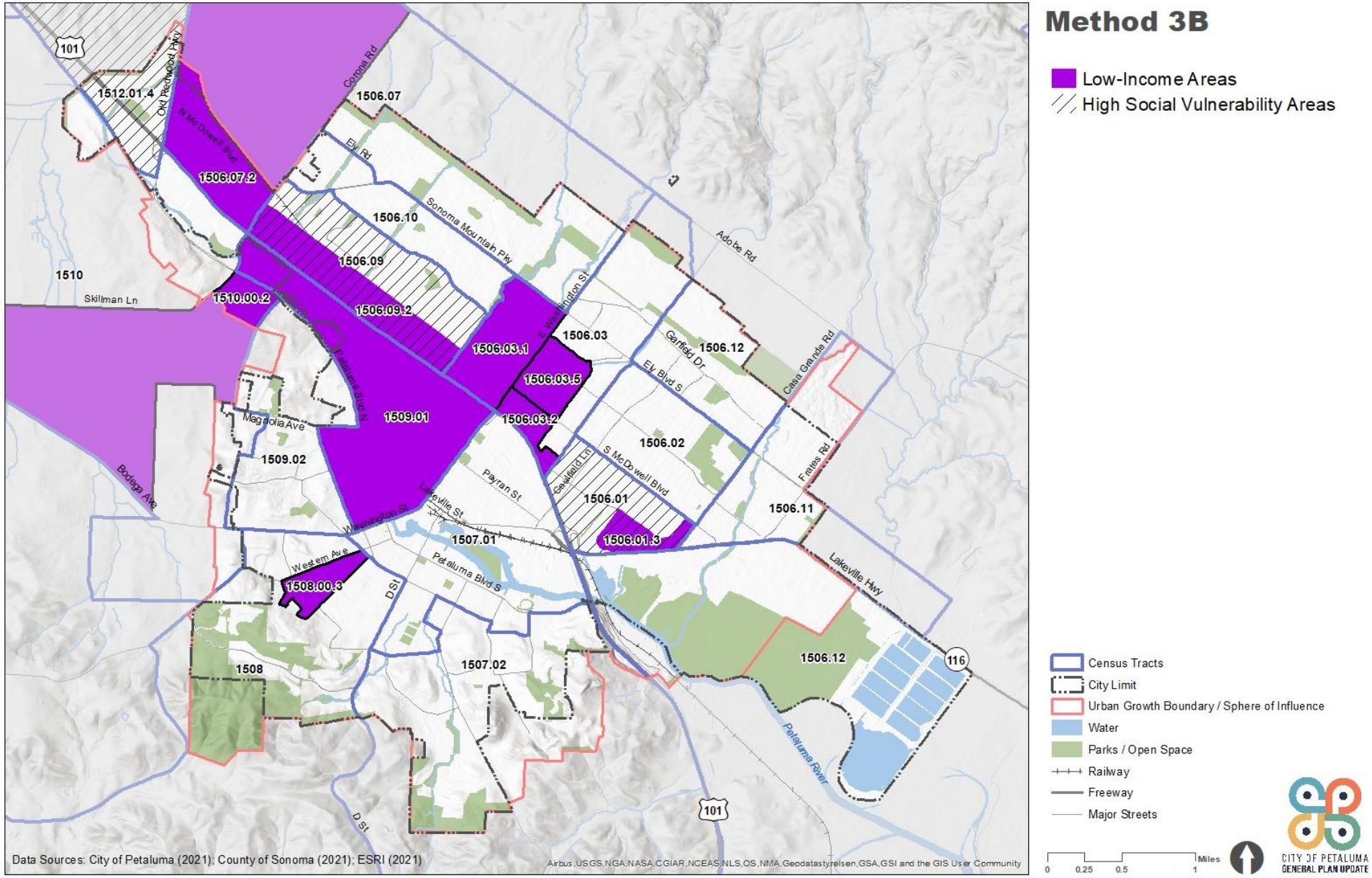
- 1506.01
- 1506.09
- 1512.01, Block Group 4

As previously mentioned on page 41, note that only a small portion of Tract 1512.01 is within Petaluma's boundaries and sphere of influence. This specific census tract is geographically large and includes parts of nearby Cotati, Penngrove, and Rohnert Park.



Method 3B Results

All the low-income and/or high social vulnerability areas had at least one potential health or environmental burdens. Therefore, all of these areas were identified as potential DACs.

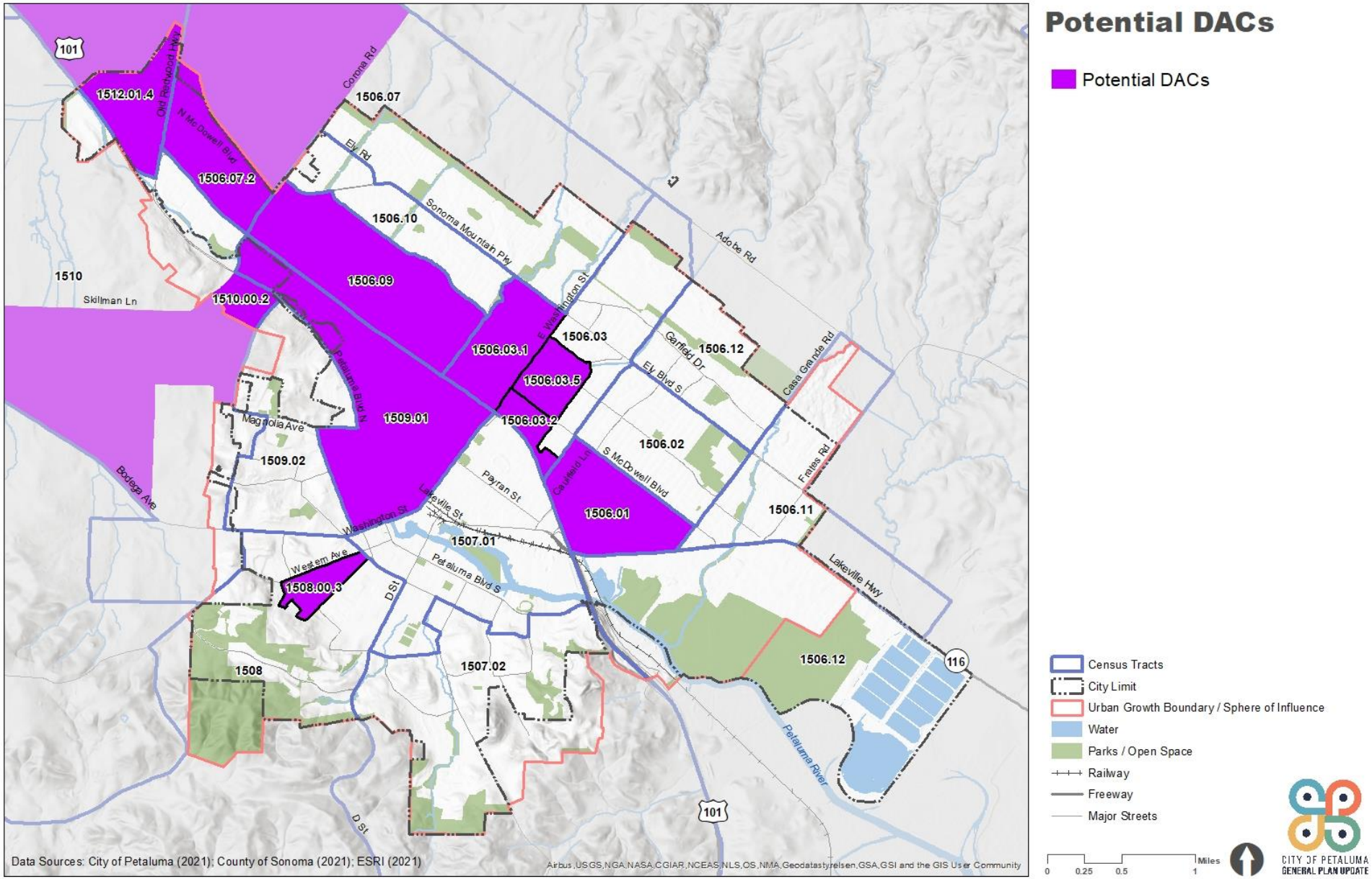


Total Potential DACs

Combining all three methods, the following census geographies were identified as potential DACs:

- Tract 1506.01
- Tract 1506.09
- Tract 1509.01
- 1506.03, Block Group 1
- 1506.03, Block Group 2
- 1506.03, Block Group 5
- 1506.07, Block Group 2
- 1508.00, Block Group 3
- 1510.00, Block Group 2
- 1512.01, Block Group 4

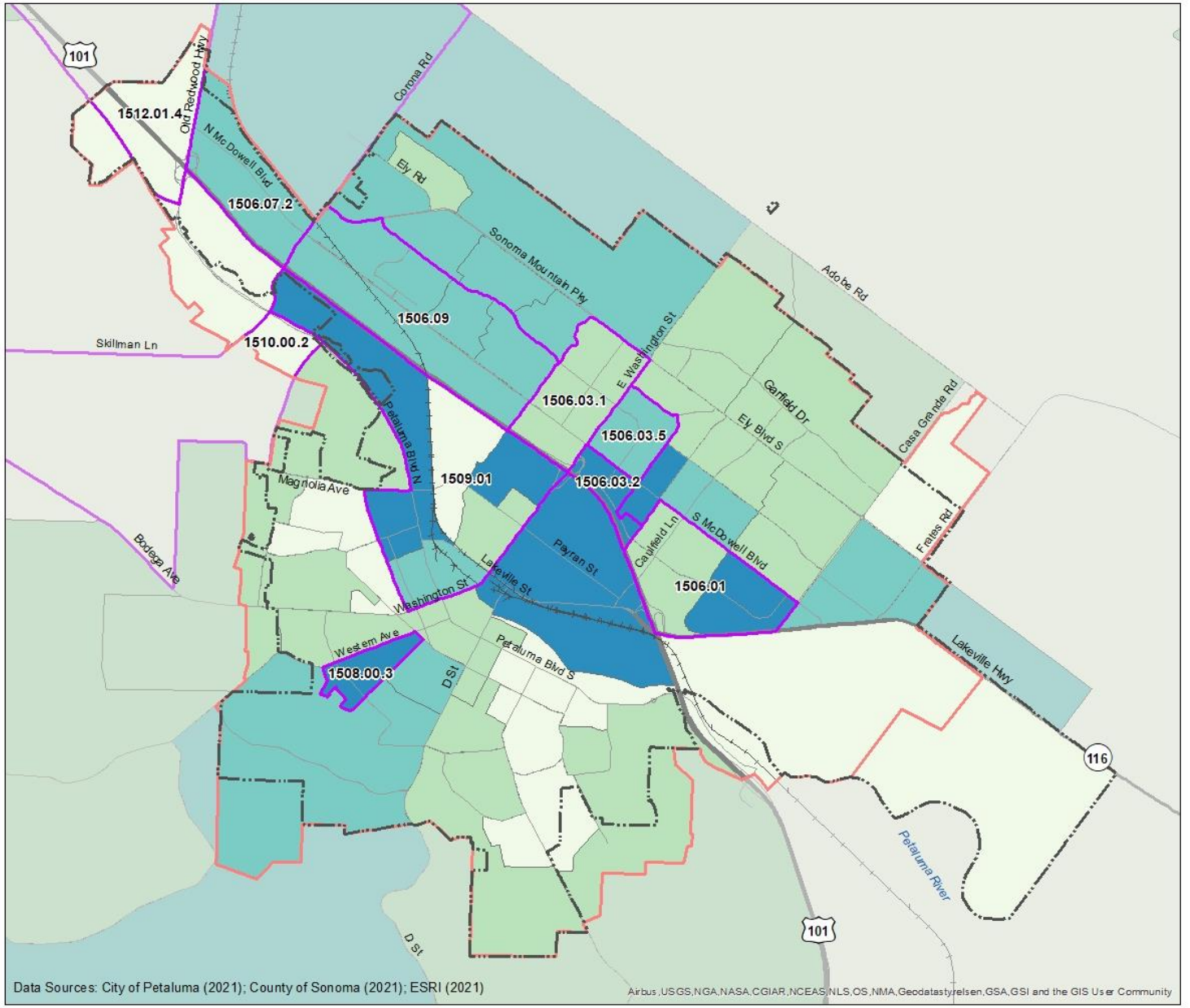
The following pages provide a summary analysis of the demographic and land use conditions of each of these areas. The analysis helps determine whether these areas should move forward as recommended DACs for the General Plan's Environmental Justice Element.



Race and Ethnicity: People of Color

As a result of the long history of inequities and racism in the planning field, race and ethnicity are closely associated with disproportionate health and environmental burdens.

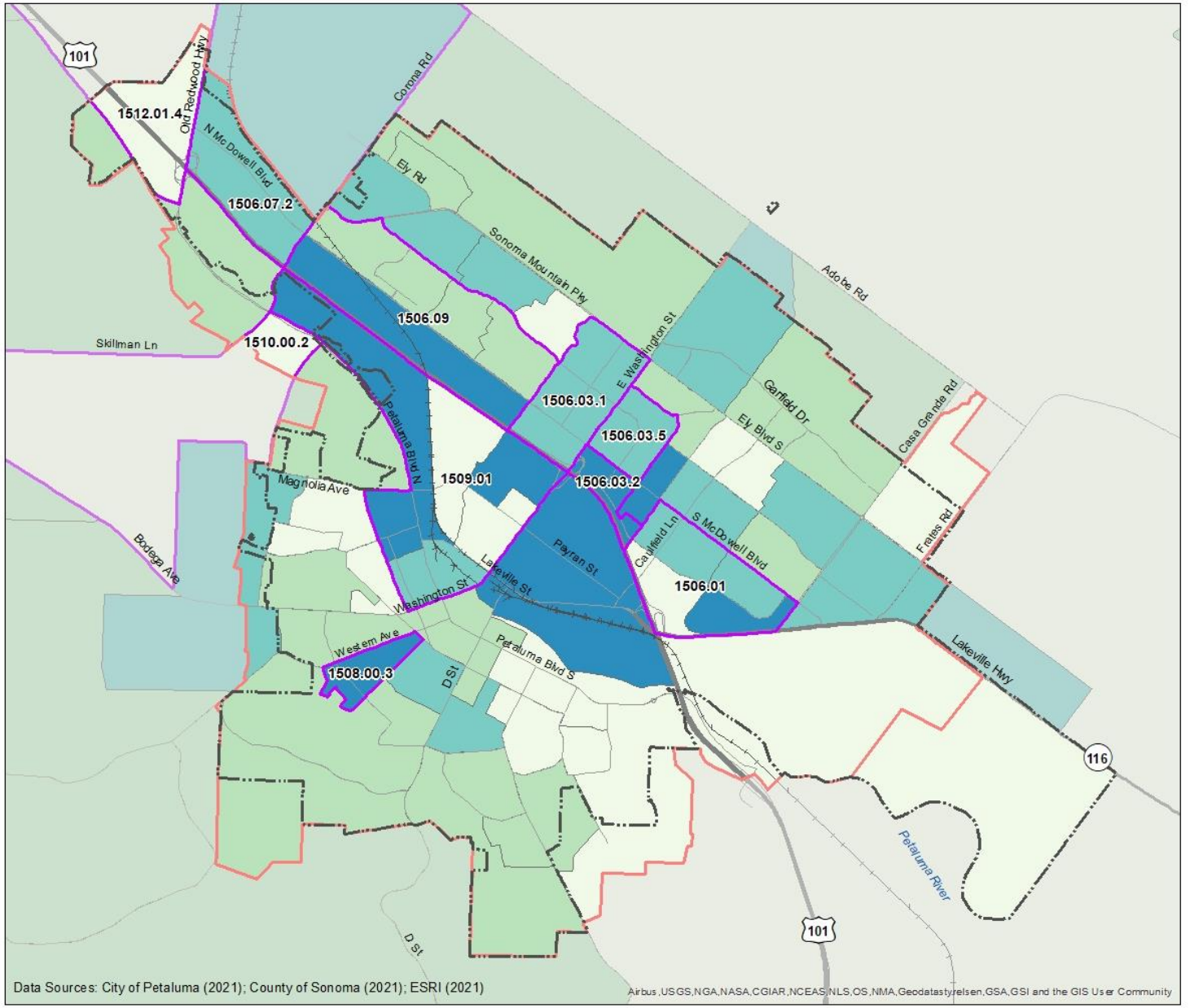
This map provides a spatial representation at the block group level between the identified potential DACs and the proportion of residents who identify as people of color (non-White) in comparison to the rest of Sonoma County. As shown on the map, many areas in Petaluma that were in the highest 25% for residents of color were also identified as potential DACs through this Health and Environmental Justice analysis.



Race and Ethnicity: Hispanic/Latinx

Residents who identify as Hispanic/Latinx make up a large majority of people of color in Petaluma.

This map provides a spatial representation between the identified potential DACs and the proportion of residents who identify as Hispanic/Latinx in comparison to the rest of Sonoma County. As shown on the map, many areas in Petaluma that were in the highest 25% for Hispanic/Latinx residents were also identified as potential DACs through this Health and Environmental Justice analysis.

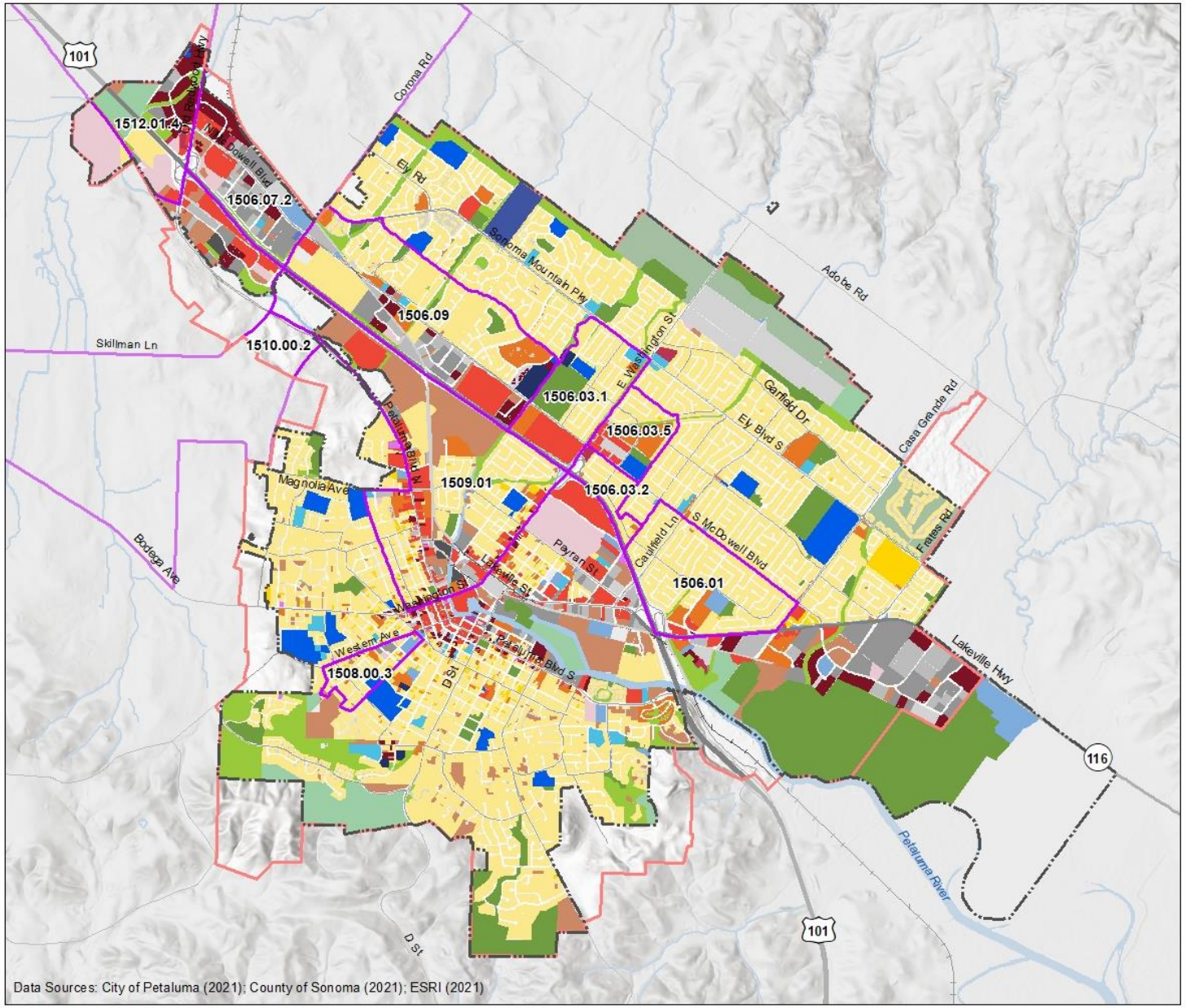


Land Use Conditions

This map provides a spatial representation between the identified potential DACs and the existing land use conditions in Petaluma.

Most identified potential DACs have a land use mix of residential with commercial, industrial, and/or open space.

Note that Block Group 2 in tract 1510.00 is completely outside the City's limits. Therefore, the City has no land use authority over this area; the County has ultimate land use authority. Since no City of Petaluma residents live in this area, it is recommended that this block group not be identified as a DAC for the purposes of Petaluma's EJ Element.



DAC Summary Analysis

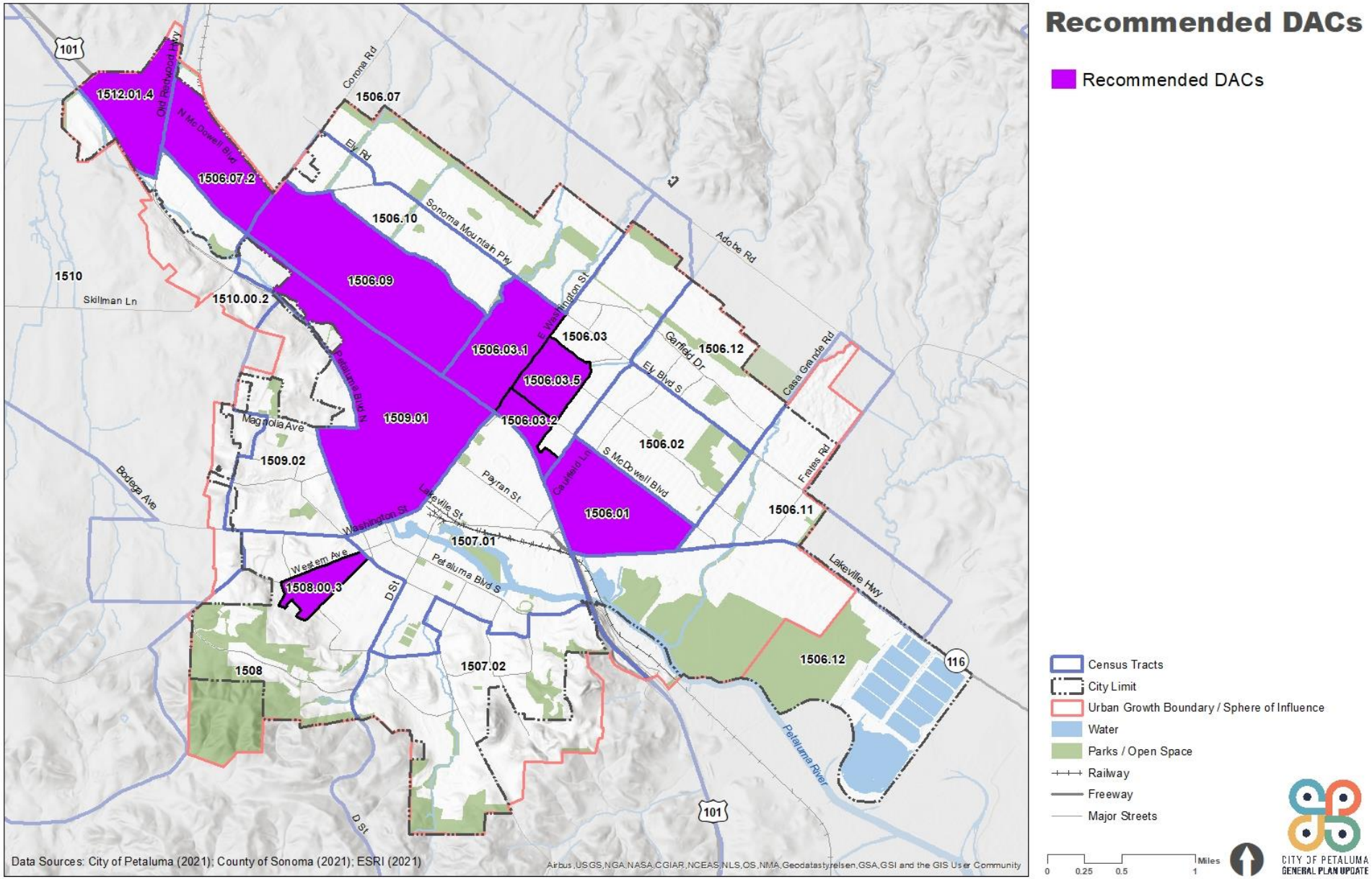
Potential DACs	Population Size	Race/Ethnicity			Existing Land Uses	Conclusion
		White (non-Hispanic)	All People of Color (non-White)	Hispanic / Latinx		
1506.01	4,413	57%	43%	30%	Mostly single-family. Some multi-family and commercial.	DAC
1506.09	5,033	65%	35%	24%	Mostly industrial and single-family. Some commercial, office, and hospital.	DAC
1509.01	5,053	57%	43%	32%	Mix of single-family, commercial, and vacant. Some multi-family and industrial.	DAC
1506.03.1	1,633	71%	29%	23%	Mix of single-family, commercial, and parks.	DAC
1506.03.2	1,258	44%	56%	49%	Mostly single-family.	DAC
1506.03.5	1,240	65%	35%	28%	Mix of single-family, multi-family, and commercial.	DAC
1506.07.2	521	64%	36%	23%	Mix of commercial, office, and industrial. Although this area currently has no residential buildings, it may be a site for future residential zoning to comply with the City's regional housing needs allocation from the State.	DAC
1508.00.3	950	52%	48%	44%	Mostly single-family. Some multi-family.	DAC
1510.00.2	1,120	85%	15%	7%	This area is completely outside the City's limits and the County ultimately has land use authority. All residents within this area live in unincorporated Sonoma County.	Not a DAC in Petaluma. Remove from list.
1512.01.4	1,663	82%	18%	8%	Mostly office. Some open space and residential. Although this tract is mostly outside the City's limits, there is one mobile home park within Petaluma next to Highway 101 that faces health and pollution burdens.	DAC

Conclusion + Recommended DACs

Based on this final analysis, there are 9 areas that are recommended as DACs for the EJ Element:

- 1506.01
- 1506.09
- 1509.01
- 1506.03, Block Group 1
- 1506.03, Block Group 2
- 1506.03, Block Group 5
- 1506.07, Block Group 2
- 1508.00, Block Group 3
- 1512.01, Block Group 4

The following page provides a summary of the health and environmental burdens in each of these recommended DACs.



Summary of Health & EJ Burdens in DACs

There are multiple health and environmental burdens within Petaluma's DACs. The three most prevalent burdens are: highway-related air pollution, low proximity to high-frequency transit, and traffic impacts. Within Petaluma, census tract 1506.09 in the city's Northeast and North MacDowell Blvd subareas is particularly burdened.

			Recommended DACs								
			Tract 1506.01	Tract 1506.09	Tract 1509.01	1506.03 BG 1	1506.03 BG 2	1506.03 BG 5	1506.07 BG 2	1508.00 BG 3	1512.01 BG 4
Health and Environmental Burdens	Method 2	Traffic Impacts	■	■	■						
		Groundwater Threats			■						
		Solid Waste Sites		■							
		Diesel PM		■							
	Method 3	Low Life Expectancy		■						■	
		Highway-related Air Pollution	■	■	■	■	■		■		■
		Low Active Commuting Rates		■							
		Low Proximity to High-Frequency Transit	■	■		■	■	■	■		■

Summary of Citywide Health & EJ Data

This page provides a summary of specific health and environmental justice indicators assessed as part of this analysis. Indicators are organized into one of three categories:

1. **Burdens in DACs:** This category includes all indicators that had a low-income and/or high social vulnerability area in Petaluma surpass established thresholds for disproportionate burden. For example, several low-income areas were at or above the 75th percentile threshold for traffic impacts (see page 48). Therefore, the traffic impacts indicator was considered a burden in DACs.

2. **Citywide Concerns:** This category includes indicators for which there was no low-income and/or high social vulnerability area that surpassed established thresholds for disproportionate burden, but still saw the majority of Petaluma score above average for potential health or environmental burden. For example, nearly all areas in Petaluma scored between the 50th and 75th percentiles for heart disease emergency room (ER) admissions (see page 77). Therefore, the heart disease ER admissions indicator was considered a citywide concern.

3. **Citywide Strengths:** This category includes indicators for which all areas in Petaluma scored below average for potential health or environmental burden. For example, all areas in Petaluma scored at or below the 50th percentile for toxic releases from facilities and, hence, have limited exposure to pollution from toxic releases (see page 58). Therefore, the toxic releases from facilities indicator was considered a citywide strength.

Burdens in DACs

- Traffic impacts
- Groundwater threats
- Solid waste sites
- Diesel PM
- Low life expectancy
- Highway-related air pollution
- Low active commuting
- Low proximity to high-frequency transit

Citywide Concerns

- Impaired waterbodies
- Heart disease ER admissions
- Adult asthma rates
- Adult heart disease rates

Citywide Strengths

- Low toxic releases from facilities
- Low asthma ER admissions
- Access to parks and open spaces
- Adult walking rates

Policy Analysis

CITY OF
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Existing Policy Analysis

SB 1000 identifies five topic areas must be addressed in the EJ Element or through integrated EJ goals, policies, or actions in other chapters of the General Plan. These are:

- Pollution exposure
- Food access
- Physical activity
- Public facilities that impact health
- Safe and sanitary housing

As a first step in the process, the following section identifies existing city policies for each of the topic areas above plus a sixth topic of improving health outcomes. This analysis is not exhaustive but rather serves as a starting point for the policy discussion in the General Plan.

Reduce Pollution Exposure, including Air Quality Improvement

Promote Public Facilities

Promote Food Access

Promote Safe and Sanitary Homes

Promote Physical Activity

Existing Policies: Pollution Exposure

The existing General Plan has policies for reducing pollution exposure, including:

- Require planting of trees for every significant tree removed at a project site
- Promote use of alternatives to the automobile for transportation, including walking, bicycling, bus transit, and carpooling
- Support the development of alternative fuel stations
- Require a percentage of parking spaces to provide electrical vehicle charging facilities
- Prohibit new fossil fuel gas stations and transition existing stations to serve Zero Emission Vehicles
- Promote ride-sharing and car-sharing programs
- Prohibit new drive-thru food and service facilities
- Reduce emissions from stationary point sources of air pollution
- Reduce combustion emissions during construction and demolition phases
- Locate new stationary sources of air pollutants at sufficient distances away from residential areas and facilities that serve sensitive receptors.

Other City policies and efforts related to reducing pollution exposure include:

- Emergency Climate Action Resolution / Framework. Goal of carbon neutrality by 2030 and net zero by 2045.
- Over 30 electric vehicle charging stations
- Ban on construction of new gas stations
- Ellis Creek Water Recycling Facility
- Lighting retrofit at all facilities; select HVAC replacement at certain facilities
- Traffic signal conversions to LEDs
- Street light LED pilot project
- Sonoma Clean Power
- Swim Center energy efficiency

Existing Policies: Food Access

The existing General Plan has policies for promoting food access, including:

- Develop Downtown uses and activities that reflect Petaluma's agricultural past
- Prohibit new drive-thru food and service facilities

Other City policies and efforts related to promoting food access include:

- The Parks and Recreation Dept now oversees four community gardens across the city
- City has attracted several farmers' markets, grocery stores, and other healthy food retailers
- The City works with Sonoma County to provide CalFresh recipients with a dollar-for-dollar match (up to $20) when they purchase fruits and vegetables at local farmer's markets.

Existing Policies: Physical Activity

The existing General Plan has policies for promoting physical activity, including :

- Preserve and enhance pedestrian connectivity in existing neighborhoods and require a well-connected pedestrian network linking developments to adjacent land uses
- Implement the bikeway system as outlined in the Bicycle and Pedestrian Plan and make improvements when possible
- Establish a network of multi-use trailed to facilitate safe and direct off-street bicycle and pedestrian travel
- Make bicycling and walking more desirable by providing or requiring development to provide necessary support facilities
- Promote bicycling and pedestrian safety and increased use of non-motorized transportation alternatives through engineering, education, and enforcement programs.
- Work with public agencies and utilities to enhance utility and railroad corridors to link open space lands with activity centers
- Fund and perform regular maintenance on all public bicycle and pedestrian facilities

Other City policies and efforts related to promoting physical activity include:

- In May of 2020, the City implemented Slow Streets to reduce traffic and encourage safe driving and physical activity on certain residential and commercial streets. Beginning in July of 2021, the Slow Streets program transitioned into a “toolkit” of Petaluma-specific traffic calming measures.

Existing Policies: Public Facilities

The existing General Plan has policies for promoting public facilities, including:

- Develop additional parkland and recreational facilities, particularly in areas lacking these facilities
- Develop and implement a Parks Master Plan
- Fund an acceptable level of maintenance for all city-owned park and recreational facilities
- Support public awareness efforts on the importance of sustaining a healthy urban forest
- Develop a Youth Master Plan
- Maintain and expand the Teen Center facilities and programs
- Maintain the Adult/Senior Center and continue to support senior activity programs
- Renovate the Cavanaugh Recreation Center in order to expand recreational programming.
- Within the Development Code, allow childcare centers in all districts
- Ensure adequate public facilities and services exist and are maintained to meet the needs of the community

Other City policies and efforts related to promoting public facilities include:

- The Parks and Recreation Department maintains over 50 parks and open spaces totaling over 500 acres. Many of these facilities provide restrooms, water fountains, picnic areas, and places for physical activity.
- The Petaluma Senior Center provides classes and recreational opportunities for older adults to socialize and maintain a healthy lifestyle.
- The City also operates a public aquatics and swim center that provides a variety of physical activity classes and programs.
- The City also seeks to expand access to education for all young children by providing low-cost preschool programming.

Existing Policies: Safe and Sanitary Housing

The existing General Plan has policies for promoting safe and sanitary housing, including:

- Facilitate the entry of low- and moderate-income households into the housing market
- Preserve the affordability of the City's existing affordable housing stock
- Ensure the long-term affordability of units developed or provided with City assistance
- Support efforts to provide housing and support services for the homeless. Support efforts to provide transitional and supportive housing to those moving from homelessness to independent living
- Promote the maintenance of existing residential units. Coordinate with the City's Code Enforcement staff to identify unsound or deteriorating housing conditions for possible rehabilitation.
- Support the construction of housing designed for persons with physical, mental, and/or developmental disabilities
- Discourage discriminatory housing practices and affirmatively further fair housing

Other City policies and efforts related to promoting safe and sanitary housing include:

- The Inclusionary Housing program requires that new development projects either build affordable housing as part of the development or pay a fee that can then be used to help build affordable housing elsewhere.
- The Commercial Linkage Fee is a development fee charged to commercial projects. Those fees are then used to help pay for affordable housing development.
- The Density Bonus program allows the City to make it easier for developers to build affordable housing by granting development concessions to projects that include affordable housing.
- Petaluma allows homeowners to build accessory dwelling units (ADUs) on their lot. The City has reduced the fees and development requirements for these units.

Existing Policies: Health Outcomes

The existing General Plan has policies for improving health outcomes, including:

- Maintain communication with the major local healthcare facilities (Petaluma Valley Hospital and Kaiser) to ensure that adequate medical facilities and services are provided to meet the varying needs of the community
- Recognize the health benefit of a walkable community with neighborhood access to parks and trails
- Improve community health and unity by providing community-wide, family-oriented special events that bring the community together
- Support and value the health and overall well-being of citizens, regardless of age
- Ensure that critical facilities, including medical centers, school facilities, and other structures that are important to protecting health, remain operative during emergencies
- Protect public health and welfare by eliminating or minimizing the effects of existing noise problems

Other City policies and efforts related to improve health outcomes include:

- The City coordinates with Sonoma County and the Petaluma Health Care District to implement community health programs to improve health outcomes
- The Petaluma Family Resource Center at McDowell School supports low-income and vulnerable families by providing them with health programming and referral assistance to health, employment, food, and housing opportunities

Next Steps

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SB 1000 Process

As was discussed in the introduction, there are three steps to developing an Environmental Justice (EJ) Element. **This technical analysis only focuses on the Step 1 of Analysis.**

The next step in the process will be to engage with the community, with a focus on the geographic locations identified as potential DACs, to confirm or refine the list of health-related issues.

The final step in the SB 1000 process is to draft goals, policies and programs that address the priorities and needs of the identified DACs. These will be included in the General Plan, either as a separate Environmental Justice Element and/or included in other Elements of the General Plan.

Step 1

Analysis: Identify disadvantaged communities (DACs), including unique or compounded health risks.

Step 1 aligns with the Discovery phase of the General Plan process.

Step 2

Engagement: Engagement with the community, especially in DACs, on a minimum of five topic areas related to health and environmental justice.

Step 2 aligns with the Visioning and Alternatives phases of the General Plan process.

Step 3

Policy Development: Integration of goals, policies, and programs into the GPU to address DAC priorities.

Step 3 aligns with the Policy Development and Plan Development phases of the General Plan process.

General Plan Process

The below chart visually displays the connection between the SB 1000 process and the General Plan's process and timeline.