

County of San Bernardino

Environmental Justice and Legacy Communities Background Report

REPORT USE, INTENT, AND LIMITATIONS

This Background Report was prepared to inform the preparation of the Countywide Plan. Updates to this report are contingent upon updates to CalEnviroScreen or equivalent state tools. This report attempts to be comprehensive but may not address every issue that was or could have been considered and discussed during the preparation of the Countywide Plan. Additionally, other materials (reports, data, etc.) were used in the preparation of the Countywide Plan; this report is not intended to be a compendium of all possible reference materials.

This report may be used to understand many of the issues considered and discussed during the preparation of the Countywide Plan, but should not be viewed as the only possible reference for data or as confirmation of intended or desired policy direction. Final policy direction was subject to change based on additional input from the general public, stakeholders, and decision makers during regional outreach meetings, public review of the environmental impact report, and public adoption hearings.

Note that since the initial 2018 publication of this report, the City of Adelanto removed the western unincorporated sphere of influence (the area is essentially unpopulated as of 2019). Additionally, the Town of Apple Valley annexed a portion of its northwestern unincorporated sphere of influence. The maps in this report do not reflect these changes as there is no substantive impact on the results or policies. The maps and identification of environmental justice focus areas will be updated upon the next version of CalEnviroScreen.

9/30/2019

Prepared by:

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1. INTRODUCTION

1.1 BACKGROUND

Across California, some communities and neighborhoods carry a disproportionate burden of environmental pollution and its adverse effects on individual and community health. Social inequity within or between communities sometimes compounds the situation. San Bernardino County is the largest and most diverse county in California. Inevitably, it has neighborhoods and communities that are disproportionately affected by environmental pollution and/or social inequity.

State planning law defines “environmental justice” as the “fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies” (Government Code Section 65040.12(e)). Since its beginnings in the 1970s, the field of environmental justice has expanded beyond its original focus of reducing the disproportionate burden of pollution among certain populations. Environmental justice now includes broader social equity—distribution of municipal services, healthy food, affordable housing, parks, and other amenities—and finding opportunities to improve access to these amenities.

In 2016, the state legislature adopted the “Planning for Healthy Communities Act,” also known as Senate Bill 1000 (SB 1000). California law now requires cities and counties with disadvantaged communities to incorporate environmental justice (EJ) policies into their general plans, either in a separate element or by integrating goals, policies, and objectives in other elements. The content must address topics such as improving public facilities, reducing pollution burden, expanding access to food and recreational opportunities, and promoting safe and sanitary housing. This update must occur “upon the adoption or revision of two or more elements concurrently after January 1, 2018.”

Besides being the biggest, San Bernardino County is one of the most complex counties in the United States—20,100 square miles of land; 2.1 million residents and 630,000 jobs; diverse valley, mountain, and desert regions; 24 incorporated cities/towns; and dozens of unincorporated areas. The County is committed to fostering complete communities with respect to their physical, environmental, social, and economic fabric. Ensuring a healthful environment and addressing environmental justice and social equity are fundamental to achieving the County’s long-term vision of a prosperous future for all.

1.2 PURPOSE AND ORGANIZATION OF REPORT

This report addresses the requirements of SB 1000, “Planning for Healthy Communities Act,” and SB 244, the “General Plan: Disadvantaged Unincorporated Communities Act.” It provides an assessment of disadvantaged communities in the unincorporated areas of the county (referred to as environmental justice focus or study areas for SB 1000) based on environmental pollution, social equity, and public services and infrastructure. This assessment provides a foundation for the goals, policies, and implementation programs of the Countywide Plan.

1. Introduction

The technical report is organized into four chapters.

- **Chapter 1, Introduction**, sets the context for environmental justice by reviewing the history of environmental justice and its application to San Bernardino County and its vision. This chapter also summarizes the public outreach efforts and resulting input, and provides the major findings of this report and opportunities for consideration.
- **Chapter 2, Regulatory Setting**, describes key federal, state, and local laws and regulations governing environmental justice and local planning. This chapter also describes the methodologies used to identify environmental justice focus areas.
- **Chapter 3, Environmental Justice Study Areas**, identifies communities based on CalEnviroScreen and other supplemental methodologies and provides a summary analysis of key environmental justice and social equity issues that should be considered in the Countywide Plan.
- **Chapter 4, Legacy Communities**, identifies such communities and analyzes their need and financial resources for water, wastewater treatment, and stormwater drainage facilities and service, and structural fire protection, as required by SB 244.

It is important to note that technical report is not intended to be an exhaustive compendium of all potential environmental justice and social equity issues countywide. Nor is it intended as a substitute for or critique of existing health risk assessments of specific facilities and land uses in the county. Rather, this technical report is intended to serve as baseline information and analysis for the Countywide Plan.

1.3 GEOGRAPHY COVERED

This report addresses two similar and, at times, overlapping geographies: environmental justice focus areas for environmental justice topics (SB 1000) and legacy community study areas for infrastructure and fire protection systems (SB 244).

1.3.1 Areas Excluded from Study

The county's 20,000 square miles contains dozens of communities, whose populations range from a small cluster of households in the desert to hundreds of thousands of residents in the San Bernardino Valley. Outside of incorporated cities and towns, the majority of the unincorporated county is virtually unpopulated and/or undeveloped. Vast expanses of deserts and mountains are under the control of the federal and state government as parks, recreational areas, monuments, and military bases and firing ranges. Over 80 percent of the entire county and nearly 90 percent of the unincorporated lands are under the land use control of the federal government, state government, or tribal authority. Over 93 percent of the unincorporated county is currently designated Resource Conservation and is uninhabited.

Accordingly, lands outside of the County's jurisdictional and land use authority are excluded from this report's analysis. Further refinements unique to each subject matter are described in the following text.

1. Introduction

1.3.2 Environmental Justice Study Areas

The environmental justice analysis focuses on the unincorporated area under the County's jurisdictional and land use authority, both within and outside of city/town spheres of influences. In both cases, the County has legal jurisdiction and authority to regulate land uses; traffic and circulation; and the provision of infrastructure, public services, and facilities.

Incorporated jurisdictions are also required to address environmental justice in their respective general plans, which would include their entire sphere of influence. The County is one of the first jurisdictions in the county to address environmental justice through an update to its general plan, so there are no city/town environmental justice elements to compare or evaluate at this time.

To provide a framework for analyzing environmental justice, this report groups areas under the County's jurisdiction into 10 study areas. Table 1-1 lists each area, including its square miles, controlling agency, and population density. As of 2018, the County of San Bernardino County has legal jurisdiction over less than one-fifth (19 percent) of the land area within the 10 study areas. Of that one-fifth, 30 percent is completely unpopulated, and 87 percent has 10 or fewer inhabitants. However, unpopulated and underpopulated areas under the County's land use authority were not excluded from study as these areas could be developed and create or experience negative environmental consequences without careful planning and policy regulation. All of the above underscores the challenge of assessing environmental justice issues and the approach of limiting the study area.

Table 1-1 Environmental Justice Study Areas

Study Area	Total Area (sq. mi.)	Area under State, Federal, or Tribal Authority (sq. mi.)	Area under County Land Use Authority	Unpopulated Census Block	Underpopulated Census Block <10 People
North Desert					
+ Lucerne Valley	1,292	877	414	43%	79%
+ Southwest High Desert	133	1	132	81%	34%
+ El Mirage Valley	406	117	289	31%	87%
+ Central Victor Valley	117	9	107	45%	65%
+ North High Desert ¹	8,568	7,593	976	19%	97%
East Desert	2,478	1,947	531	55%	64%
Mountain					
+ Mountain	438	364	74	25%	84%
+ Foothill-Mountain	463	378	85	37%	80%
Valley					
+ Muscoy-Bloomington	35	0	35	75%	31%
+ Valley Unincorporated Islands	79	1	78	62%	48%
Total	14,009	11,287	2,722	30%	87%

1. The census tracts for the North High Desert extend to the Nevada border, with the majority of land unpopulated.

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Figure 1-1 maps the environmental justice study areas from Table 1-1, which guide the remainder of the environmental justice assessment. Figure 1-1 also maps the land in San Bernardino County that is in and outside of the County's jurisdictional or land use control.

1.3.3 Legacy Community Study Areas

The legacy community analysis focuses on areas in unincorporated communities that are outside city/town spheres of influence and meet specific income and density requirements. In accordance with state law and guidance provided by the Governor's Office of Planning and Research and San Bernardino County Local Area Formation Commission, the County used the following criteria to identify disadvantaged unincorporated legacy communities:

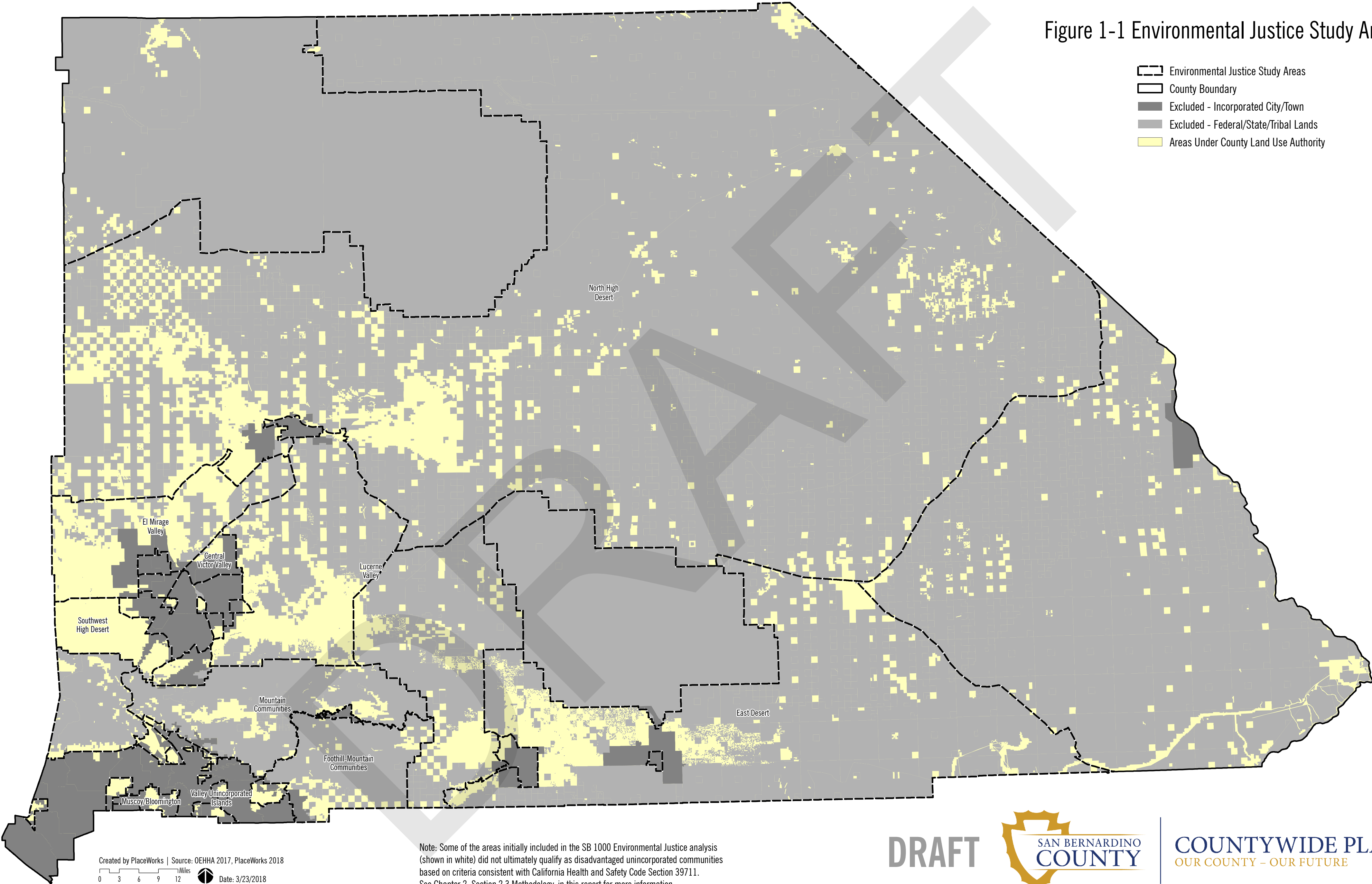
- Located outside of city/town limits and spheres of influence of any city/town;
- Inhabited and has been for at least 50 years (also referred to as a legacy community);
- Consists of at least 10 dwelling units in close proximity (approximately 1-mile radius); and
- Median household income for the census tract less than 80% of the statewide median.

Based on the above criteria, the following community areas were identified for study. These areas are mapped in Figure 1-2, with Figure 1-3 identifying areas excluded from study.

Table 1-2 Legacy Community Study Areas

Valley Region	
There are no unincorporated communities that match the criteria set forth in California Government Code Section 65302.10.	
Mountain Region	
Bear Valley area: Big Bear City, Fawnskin (Northshore), Moonridge, and Sugarloaf	Lake Arrowhead area: Twin Peaks
Crest Forest area: Cedarpines Park, Crestline (Lake Gregory), and Valley of Enchantment	Additional communities with areas that match the criteria: Agua Fria, Blue Jay, Crest Park, Lake Arrowhead, Rimforest, and Skyforest
Forest Falls	Wrightwood
Hilltop area: Arrowbear and Running Springs	
Desert Region	
Baker	Phelan
El Mirage	Pinon Hills
Havasu Lake*	Pioneertown area: Gamma Gulch, Pioneertown, Pipes Canyon, and Rimrock
Homestead Valley area: Flamingo Heights, Johnson Valley, Landers, Yucca Mesa	Red Mountain
Joshua Tree	Ridgecrest area*
Lucerne Valley	Searles Valley
Morongo Valley	Trona
Newberry Springs*	Wonder Valley
Oro Grande	Yermo
* The entire community does not match the criteria set forth in state law as a disadvantaged unincorporated legacy community, but portions of the community area do match the criteria.	

Figure 1-1 Environmental Justice Study Areas



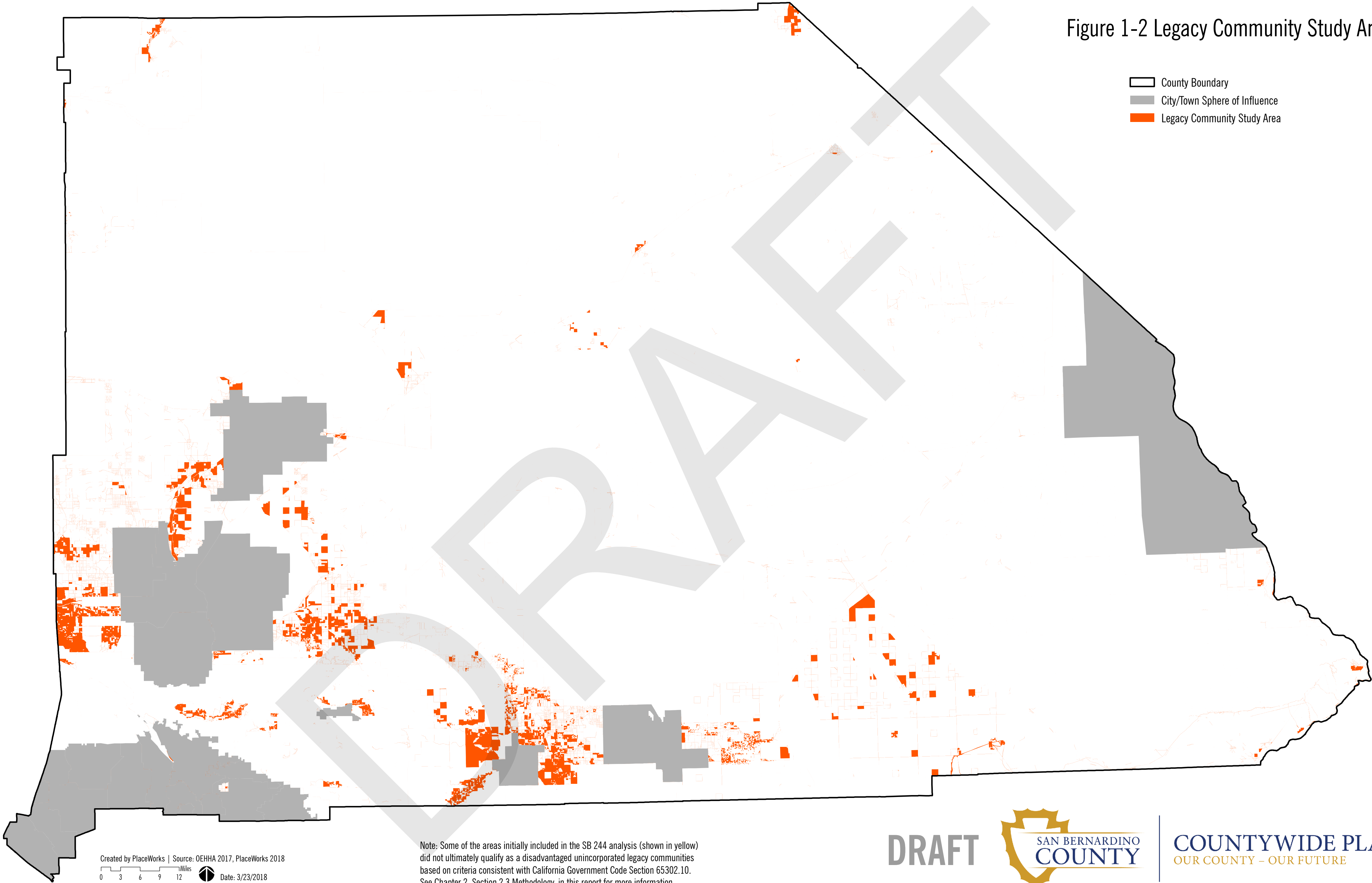
Note: Some of the areas initially included in the SB 1000 Environmental Justice analysis (shown in white) did not ultimately qualify as disadvantaged unincorporated communities based on criteria consistent with California Health and Safety Code Section 39711. See Chapter 2, Section 2.3 Methodology, in this report for more information.

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Figure 1-2 Legacy Community Study Areas

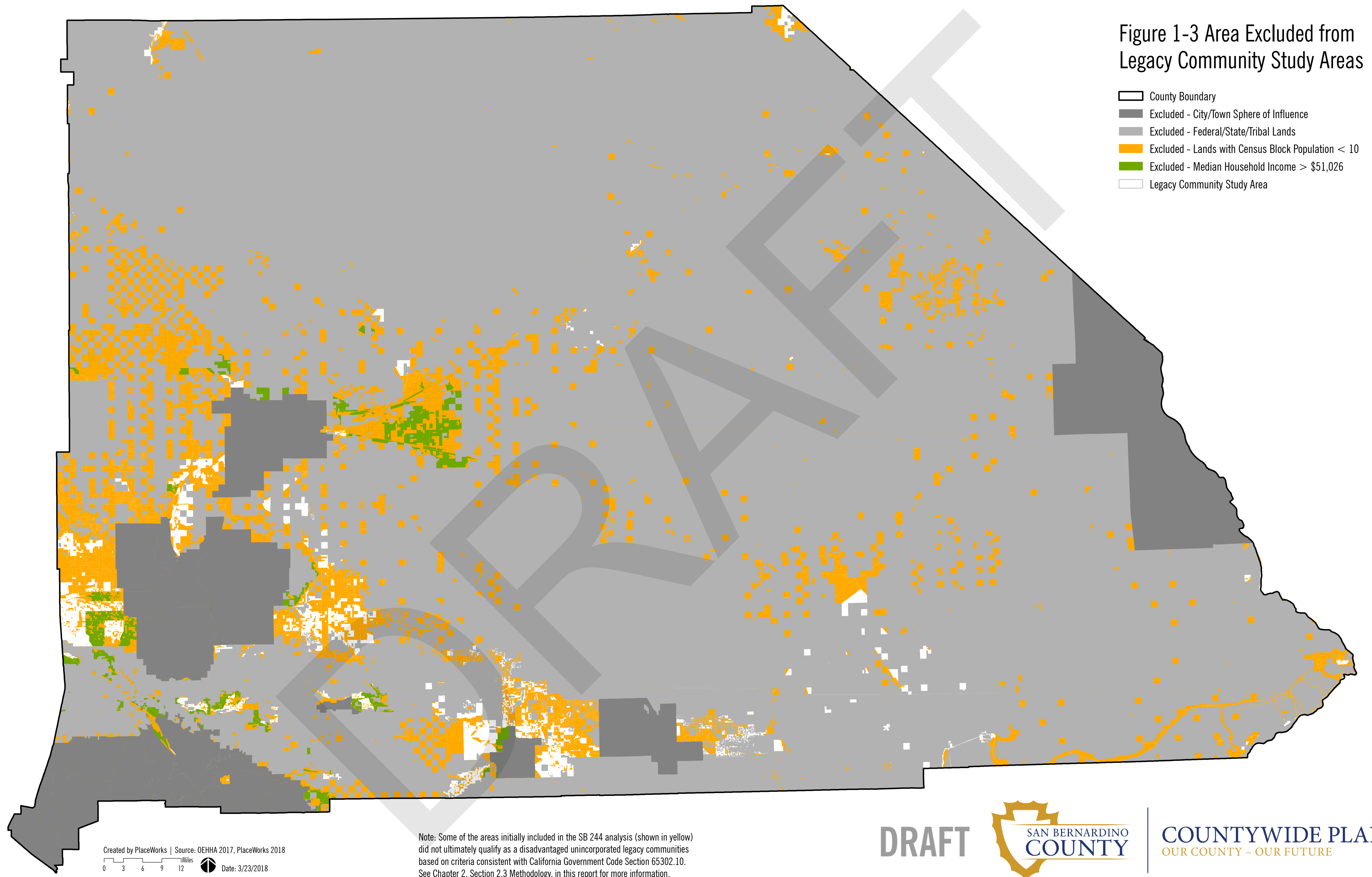


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Figure 1-3 Area Excluded from Legacy Community Study Areas



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1. Introduction

1.4 SUMMARY OF PUBLIC OUTREACH

This section summarizes the public outreach that included opportunities to comment on or were entirely focused on environmental justice topics. While the majority of the county's communities are not classified as environmental justice focus areas, the County conducted outreach throughout the county to obtain input. Table 1-3 summarizes the input received that are related to environmental justice during activities conducted between October 2015 and November 2018, followed by a narrative description of the outreach efforts.

Table 1-3 Environmental Justice Issues Identified in Public Outreach, 2015–2018

Issues Identified by the Community	Valley	Mountain	North Desert	East Desert
Lack of access to healthy food choices	X	X	X	X
Lack of access to medical services	X	X	X	X
Need more parks and recreational facilities	X	X	X	X
Inadequate pedestrian facilities	X	X	X	X
Limited bicycle facilities	X	X	X	X
Definition / identification of disadvantaged communities	X	X	X	X
Buffering / transition zones from incompatible land uses, particularly for sensitive populations	X	X	X	X
Limitation or cap on emissions or other pollutants	X	X	X	X
Improved technology that can reduce pollution	X	X	X	X
Poor housing conditions	X		X	X
Lack of code enforcement	X		X	X
Nonconforming housing in proximity to pollution sources	X		X	X
Long response times for emergency services		X	X	X
Insufficient time to respond to proposed projects		X	X	X
Community-based agreements on truck-intensive uses	X		X	
Baseline information for emissions and pollutants	X		X	
Funding for project-based and subregional air quality improvements	X		X	
Fugitive dust emissions and impacts on air quality			X	X
Drinking water quality / pollution			X	X
Groundwater contamination			X	X
Expansion of utility scale solar and impacts on air quality			X	X
Proximity to I-10 freeway and impacts on air quality	X		X	
Proximity to rail yard and impacts on air quality	X		X	
Expansion of logistics uses and impacts on air quality	X			
Heavy truck traffic and impacts on air quality	X			
Dust from cement factory and impacts on air quality			X	
Sewage sludge and impacts on water quality			X	

Note that issues identified through analysis of governmental data and other reports (including associated public outreach efforts), are not summarized in Table 1-3. Those issues are incorporated into the overall issues summary in Table 1-4 and later sections that address individual community planning areas.

1. Introduction

Engaging residents in a county as large and diverse as San Bernardino required a robust effort to reach residents, agencies, and other stakeholders who live, work, or serve one or more of the county's communities.

The County initiated outreach in late 2015 with a focus on individual community planning areas. Between 2015 and 2017, the County engaged over 2,100 individuals from over 80 unincorporated communities throughout the county's four regions. The outreach consisted of over 70 meetings in over 30 different locations, along with in-person and online surveys (total of 910 survey responses). Meetings in Muscoy and Bloomington were also conducted with bilingual materials and in-person translation assistance. The County also convened multiple meetings with the community in Bloomington to discuss concerns about the logistics industry.

The public meetings were designed to engage residents in a workshop setting to identify problems and potential solutions to address specific issues unique to each community planning area. Attendees were given a presentation and handout materials on the overall Countywide Plan effort, including new topics of focus like environmental justice. Specific questions asked of the community (in person and through the surveys), included the following:

- What areas are there for improvement in the community?
- What internal or external factors or resources could be opportunities for your community?
- What are threats to your community?
- What outside factors outside of the control of the community could threaten your community?

The second phase of public meetings took place in 2017 and 2018 through two rounds of 17 regional meetings in 13 different locations throughout the county's four regions. Over 600 individuals attended these meetings, including representatives from over 50 agencies and organizations associated with federal, state, regional, and local services and interests. The first round of regional meeting was designed to engage residents, agencies, service, providers, advocacy groups, and other stakeholders to identify and discuss issues that are unique to specific communities or regions or are countywide. Environmental justice issues discussed included: air quality, decision-making, equitable development, healthy food, parks and green spaces, pollution, public facilities, public health, recreation, and social equity. The second round of regional meetings presented draft policy recommendations based on input received and as directed by state law.

Agencies, advisory entities, advocacy groups, and other organizations who participated (in person or online) during the regional meetings or were interviewed on the topic of environmental justice include:

- | | |
|---|--|
| ■ Bloomington Municipal Advisory Council | ■ Marine Corps Logistics Base Barstow |
| ■ California Air Resources Board | ■ Mojave Desert Air Quality Management District |
| ■ California Office of the Attorney General | ■ Mojave Water Agency |
| ■ Center for Community Action and Environmental Justice | ■ Morongo Basin Municipal Advisory Council |
| ■ Climate Resolve | ■ Naval Air Weapons Station China Lake |
| ■ Crest Forest Municipal Advisory Council | ■ Oak Hills Municipal Advisory Council |
| ■ CSU Northridge | ■ Santa Ana Watershed Project Authority |
| ■ Department of Toxic Substances Control | ■ San Bernardino Local Agency Formation Commission |
| | ■ San Bernardino County Transportation Authority |

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- Edwards Air Force Base
- El Mirage Municipal Advisory Council
- Fort Irwin National Training Center
- Institute for Local Government
- Joshua Tree National Park
- Lake Arrowhead Municipal Advisory Council
- Latinos for Water
- League of Conservation Voters
- Lucerne Valley/Johnson Valley Municipal Advisory Council
- Marine Corps Air Ground Combat Center Twentynine Palms
- Sempra Utilities
- Searles Valley-Trona Municipal Advisory Council
- Sierra Club
- SoCalGas
- South Coast Air Quality Management District
- Southern California Edison
- State Water Resources Control Board
- U.S. Forest Service
- U.S. Bureau of Land Management

Throughout 2018, the County conducted individual interviews with service agencies, advocacy groups, and other organizationally-oriented stakeholders. The County Department of Public Health also conducted a Healthy Communities meeting in March 2018 in Fontana, where the County and its consultant presented information and led a discussion on environmental justice issues affecting the county and possible solutions.

Finally, with over 100 communities spread across 20,000 square miles, the County anticipated that attendance at public meetings would not be feasible for many community members. To maximize input and access to information, the County posted all of the meeting material online (countywideplan.com/cp) in advance of public meetings (with summary information and electronic versions of surveys posted after the meetings). An individual webpage was dedicated for each community planning area (e.g., www.countywideplan.com/bloomington) so that community members could focus on information and provide input specific to their area of interest.

The County also maintained email addresses for each community (e.g., bakercp@lus.sbcounty.gov) and provided an online submission form (no email required) for people to submit comments and questions. Over the span of the three-year outreach effort, the project website was used by over 13,000 unique visitors (excluding County and consultant usage), with the County receiving hundreds of comments and questions through the email addresses and online submission forms (anonymous if desired). A portion of these comments and questions addressed matters related to environmental justice concerns.

1.5 ISSUES AND DISCUSSION

Based on the public input received (and described in the preceding section), and analysis of available state and regional agency data and reports, Table 1-4 provides a broad overview of issues and opportunities for the Countywide Plan related to environmental justice and legacy communities, with a focus on improvements and programs that address the needs of such communities. Additional issues are highlighted for specific communities and areas of the county in Section 3, *Environmental Justice Communities* (see assessments by policy area), and Section 4, *Legacy Communities*.

1. Introduction

Table 1-4 Summary of Issues and Opportunities

Topic	Issues	Opportunities to Consider
Reduce exposure to pollution and improve air quality	<p>Reducing exposure to environmental pollution is influenced by cleanup of existing sources of ground and water pollution, and pollution control measures to reduce existing and future sources of emissions.</p> <p>Many legacy land uses on EnviroStor (California Department of Toxic Substances data) and other databases require evaluation; the actual risk of exposure is unknown.</p> <p>The region is home to many industrial land uses, warehousing, trucking, and railyards that emit particulate matter in and around urban areas.</p> <p>The regional transportation infrastructure and high volume of vehicles hinder achievement of state and federal air quality standards.</p> <p>Mineral extraction activities can be a source of pollution in the air, soil, and groundwater.</p> <p>San Bernardino County (Mojave Desert Air Basin and South Coast Air Basin) is in nonattainment status for ozone—the highest levels in California—along with high rates of asthma and respiratory disease.</p> <p>Groundwater has high levels of contaminants (arsenic, uranium, nitrate, salts, etc.), requiring treatment or blending to achieve state standards.</p>	<p>County has permitting authority in unincorporated areas and can require site assessments and design features to mitigate health hazards where appropriate.</p> <p>Focus new policy development on land use compatibility to protect health and safety.</p> <p>Continue to improve communication and coordination with South Coast Air Basin and Mojave Desert Air Basin.</p> <p>Continue to collaborate with numerous agencies, organizations, and other service providers to identify opportunities to improve the natural and built environment.</p> <p>Leverage partnerships and data to obtain state, federal, or regional grant funding for air quality and public health initiatives.</p> <p>Continue efforts to identify, monitor and measure local health and social conditions and trends, such as the Community Vital Signs and Health Stat efforts.</p> <p>Continue to regulate and monitor hazardous waste facilities to protect public and environmental health.</p> <p>Update the Development Code and other building regulations to include preventive measures to reduce exposure to pollution.</p> <p>Establish truck routes in unincorporated areas that reduce mobile sources of pollution in residential neighborhoods.</p> <p>Limit the ability of new development and general plan amendments to increase exposure to pollution in environmental justice focus areas.</p>
Improve Access to Food	<p>Limited access to supermarkets, grocery stores, or other sources of healthy and affordable food make it harder for some to eat a healthy diet.</p> <p>Some areas in the outlying desert lack food outlets; some areas in the valley have a preponderance of fast food.</p> <p>San Bernardino County experiences some of the highest obesity rates and chronic disease rates in California.</p>	<p>Continue to collaborate with agencies and organizations already working in San Bernardino County to improve access to healthy foods</p> <p>Assist agencies and organizations in establishing funding mechanisms or obtaining funding for community desired improvements and services</p>
Increase Access to Opportunities for Physical Activity	<p>San Bernardino County is known for its state and federal parks that offer opportunities for outdoor recreation. The County also maintains 9,000 acres of regional parks throughout its many communities.</p> <p>Existing and planned development patterns in the unincorporated areas are typically too dispersed to fund or be well-served by conventional park and recreation facilities such as neighborhood parks and bike and pedestrian trails.</p>	<p>Encourage the creation of community facilities or service districts to supplement local parks and recreation facilities in unincorporated areas.</p> <p>Apply for state and federal recreation, open space, and health and wellness grant monies that can be used to augment funding for recreation facilities and programs.</p> <p>Work with community health and wellness organizations, advocates, and philanthropists to create an endowment for parks and recreation amenities.</p>
Promote Safe and Sanitary Housing	<p>Safe and sanitary housing can enable or detract from the health, safety, and welfare of the public. Many areas have adequate housing, but other areas have housing needs:</p> <ul style="list-style-type: none"> Housing rehabilitation needs for older units, mobile units, or units in lower income areas. Demolition of abandoned or vacant housing that is dilapidated beyond repair. 	<p>Require cumulative health risk assessment when a project potentially negatively impacts sensitive receptors in environmental justice focus areas.</p> <p>Educate the public on indoor air quality and obtaining funding for related programs.</p>

1. Introduction

Table 1-4 Summary of Issues and Opportunities

Topic	Issues	Opportunities to Consider
	<ul style="list-style-type: none"> Code enforcement issues related to property maintenance (debris, vegetation, storage, etc.). Crime or other safety issues, particularly lower income areas. 	<p>Provide assistance to relocate residents living in nonconforming uses in unincorporated environmental justice focus areas</p> <p>Continuing to collaborate with housing and homelessness service providers</p>
Provide Public Facilities, Services, and Infrastructure	<p>Public facilities, services, and infrastructure are provided by County and other local agencies, such as roads, sewer, water, and drainage.</p> <p>The majority of unincorporated residents are far from one another and public services, resulting in development patterns that are difficult and expensive to serve and upgrade with infrastructure improvements.</p> <p>An incremental approach to financing infrastructure in the unincorporated areas is often insufficient to improve infrastructure in deficient areas—such areas require substantial one-time funding or financing assistance to make infrastructure and service improvements viable.</p>	<p>Consider impact fees and requirements for funding and financing mechanisms to pay for infrastructure and service improvements.</p> <p>New development of sufficient size can fund infrastructure and service improvements that can also serve existing areas. Consider augmenting improvements by new development through community-based funding and financing mechanisms.</p> <p>Focus County efforts on investments in public facilities, infrastructure, and services to benefit unincorporated environmental justice focus areas.</p>
Promote Civil Engagement in Public Decision making Process	<p>New development can create a more substantial impact on environmental justice focus areas, which are already disproportionately impacted.</p> <p>It can be difficult for residents in such areas to learn about and provide input on proposed development in a timely manner that substantively and effectively impacts the decision making process. Some residents do not speak English, live far away from public meeting sites, and/or do not have good internet access.</p>	<p>Revise timing and procedures for notifying the public in environmental justice focus areas about proposed development applications.</p> <p>Continue to coordinate with community stakeholders to obtain timely input about proposed development applications in environmental justice focus areas.</p> <p>Require applicants to conduct public outreach in or adjacent to environmental justice focus areas.</p>
Infrastructure needs in disadvantaged unincorporated communities (SB 244)	<p>Disadvantaged unincorporated communities (DUCs) are often located far from infrastructure and services and tend to be lower income, making it difficult to construct, maintain, and improve infrastructure and public services.</p> <p>DUCs can experience ongoing water contamination problems, with an overconcentration of septic systems causing some water quality concerns in the mountains.</p> <p>Portions of some DUCs are within 100-year flood zones.</p> <p>Fire response times vary by accessibility (remote locations, unpaved roads, snow/ice, etc. impact response times).</p>	<p>Support efforts to obtain grant funding and other funding mechanisms to improve water quality, wastewater treatment, and the provision of other services in disadvantaged unincorporated communities.</p> <p>Continue to monitor water quality and have a moratorium on septic systems as needed to protect drinking water.</p> <p>Focus future growth where it is fiscally sustainable; not in remote, rural areas.</p> <p>Continue to collaborate with multiple fire suppression and emergency medical response agencies to provide aid.</p> <p>Discourage development in 100-year flood zones to protect human life and properties.</p>

1. Introduction

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2. REGULATORY SETTING

This chapter addresses three topics: 1) the regulatory setting for environmental justice; 2) important terms; and 3) methodology for identifying environmental justice and social equity concerns.

2.1 REGULATORY SETTING

Federal, state, and local laws, regulations, and policies set the context for the environmental component of the Countywide Plan and its associated environmental impact report. Some of the more relevant laws enacted over the last 25 years are summarized in this section.

2.1.1 Federal Laws, Regulations, and Agencies

Executive Order 12898: Federal Actions to Address Environmental Justice

Executive Order (EO) 12898 was issued in 1994 to focusing federal attention on the environmental and human health effects of federal actions on minority and low-income populations, with the goal of achieving environmental protection for all communities. The EO directed federal agencies to identify and address the disproportionately high and adverse human health and environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law. The EO directed each agency to develop a strategy for implementing environmental justice. The presidential memorandum accompanying EO 12898 also emphasized the importance of using the National Environmental Policy Act (NEPA) review process to promote environmental justice. The United States Environmental Protection Agency (EPA) has dedicated a website to information and tools for addressing environmental justice through the NEPA review process.¹

Federal Interagency Working Group on Environmental Justice

EO 12898 led to the creation of the Federal Interagency Working Group (IWG) on Environmental Justice, which consists of 17 federal agencies and White House offices that find facts, receive public comments, and conduct inquiries into environmental justice issues. The EJ IWG is convened by the EPA to guide, support, and enhance federal environmental justice and community-based activities. Through the EJ IWG, the federal government assists overburdened and underserved communities to implement comprehensive solutions to local environmental and human health challenges. The EJ IWG established an Action Agenda Framework to provide a mechanism for communication and action on environmental justice issues. More info on the EJ IWG can be found on the EPA's website.²

¹ Environmental Justice Considerations in the NEPA Process, <https://www.epa.gov/environmentaljustice/environmental-justice-and-national-environmental-policy-act>.

² <https://www.epa.gov/environmentaljustice/federal-interagency-working-group-environmental-justice-ej-iwg>.

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2.1.2 California Laws and Regulations

California Environmental Quality Act

The California Environmental Quality Act does not contain a requirement to consider environmental justice matters when evaluating and mitigating potential impacts of projects.

Senate Bill 115

California was of the first states to address environmental justice in law when Governor Davis signed SB 115. This landmark bill led to defining environmental justice in statute; establishing the Governor's Office of Planning and Research (OPR) as the coordinating agency for environmental justice programs; and requiring the California Environmental Protection Agency (CalEPA) to develop a model environmental justice mission statement for agency boards, departments, and offices. SB 89, signed the next year in 2000, required the creation of an environmental justice working group and an advisory group to assist CalEPA in developing an intra-agency environmental justice strategy (finalized in 2003). Assembly Bill 1553, which became effective in 2003, required OPR to develop guidelines for jurisdictions to address environmental justice in general plans. In the 2003 OPR Guidelines, environmental justice focused on siting decisions for land uses, but not broader equity considerations.

Senate Bill 244

A related bill, SB 244 (effective 2012), requires cities, counties, and local agency formation commissions to identify disadvantaged unincorporated communities and provide an analysis of water, wastewater, stormwater, drainage, and structural fire protection needs or deficiencies. SB 244 defines a disadvantaged community as a fringe, island, or legacy community in which the median household income is 80 percent or less of the statewide median household income. This legislation was passed to address the complex barriers that contribute to regional inequity and infrastructure deficits in disadvantaged unincorporated communities. This legislation is relevant for San Bernardino County because due to the number of remote communities that are located far from cities and more intense suburban development. Many of these areas also overlap those analyzed for environmental justice concerns. The SB 244 analysis identifies infrastructure and service deficiencies that lead to inequities between cities and unincorporated areas.

Senate Bill 535

SB 535 was passed into law in 2012 and is largely based on the goal and actions of AB 32 (2006) to reduce greenhouse gas emissions in California, with a specific connection to the creation of a cap-and-trade system. Under such a system, companies must purchase extra credits when they exceed their allotted amount of GHG emissions. Along with supplemental legislation (AB 1550, 2016), SB 535 requires that 25% of the money generated from companies purchasing extra credits is spent on projects that benefit and are in disadvantaged communities (per the State's CalEnviroScreen model and California Air Resources Board definitions for the purposes of California Climate Investments). In recognition of the challenges with respect to addressing environmental justice issues, AB 1550 extended priority consideration for cap-and-trade funds for lower income communities.

2. Regulatory Setting

Senate Bill 1000

Senate Bill 1000, the Planning for Healthy Communities Act, was signed into law in September 2016. SB 1000 mandates that, after January 1, 2018, cities and counties adopt an EJ element in their general plans or integrate environmental justice policies, objectives, and goals into other elements when two or more general plan elements are being updated. SB 1000 states:

The environmental justice element, or related environmental justice goals, policies, and objectives integrated in other elements, shall do all of the following: a) identifying objectives and policies to reduce the unique or compounded health risks in disadvantaged communities; b) identifying objectives and policies to promote civil engagement in the public decision-making process; and c) identifying objectives and policies that prioritize improvements and programs that address disadvantaged communities.

The EJ element or integrated goals, policies, and implementation programs are intended to reduce the unique or compounded health risks in EJ communities by addressing at least these topics:

- **Pollution Exposure.** Policies to mitigate and prevent exposure to hazardous materials and air pollutant emissions, remove and restrict toxic pollutants, and protect sensitive populations within and around EJ communities.
- **Public Facilities.** Policies to promote facilities such as infrastructure, parks, community facilities, active transportation, roads and trails, and healthcare facilities and ensure that EJ communities have equitable access to such facilities.
- **Food Access.** Policies to promote healthy food access in EJ communities through programs and projects, such as grocery supermarkets, local agriculture, and mobile vending that fit the local context and needs of communities.
- **Safe and Sanitary Homes.** Policies to ensure healthy and safe housing, such as addressing presence of lead-based materials and asbestos; issues of housing rehabilitation; significant code enforcement or neighborhood quality issues, etc.
- **Physical Activity.** Policies to promote spaces for physical activity and ensure access, connectivity, and equitable distribution of physical activity opportunities, such as pedestrian-friendly and bicycle-friendly streetscape environments.
- **“Civil” or Community Engagement.** Policies to promote equitable and inclusive community engagement that increases participation, inclusion, and accessibility for non-English speaking communities and incorporates community input into planning and policy outcomes.

The analysis of San Bernardino County’s unincorporated communities in this report is intended to document existing conditions with respect to the above environmental justice and social equity considerations and provide examples of opportunities for improvement.

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2.1.3 County Plans

San Bernardino County General Plan

The County's General Plan (2007) is the guiding plan for the long-term development of the County unincorporated area. Although the plan was prepared prior to SB 1000, it reflects environmental justice concerns prevalent at the time. OPR's 2003 update of the General Plan Guidelines addressed environmental justice mandates primarily through how land uses are sited. Similarly, the 2007 General Plan incorporated a wide variety of land use compatibility matrices to address these issues. These regulations primarily address safety-related concerns. Land use compatibility tables were prepared for different hazard overlays. In addition, the land use element had "locational criteria" for each land use designation that were intended to prevent the siting of land uses where existing or potential incompatibilities could present a hazard to public health. In the early 2000s, neither OPR nor the County General Plan addressed all the equity concerns now identified in SB 1000.

Countywide Vision

In 2011, the County of San Bernardino Board of Supervisors adopted the Countywide Vision, which calls for collaboration across all sectors to create a vibrant, physically and economically healthy county. This vision has 10 elements: jobs/economy, education, housing, public safety, infrastructure, quality of life, environment, wellness, water, and image. The vision outlines how each is part of an interconnected system that relies on all elements to work together to improve quality of life.

- We envision a complete county that capitalizes on the diversity of its people, its geography, and its economy to create a broad range of choices for its residents in how they live, work, and play.
- We envision a vibrant economy with a skilled workforce that attracts employers who seize the opportunities presented by the county's unique advantages and provide the jobs that create countywide prosperity.
- We envision a sustainable system of high-quality education, community health, public safety, housing, retail, recreation, arts and culture, and infrastructure, in which development complements our natural resources and environment.
- We envision a model community which is governed in an open and ethical manner, where great ideas are replicated and brought to scale, and all sectors work collaboratively to reach shared goals.
- From our valleys, across our mountains, and into our deserts, we envision a county that is a destination for visitors and a home for anyone seeking a sense of community and the best life has to offer.

Although the County's vision does not use the term environmental justice or social equity, the vision of a countywide, complete community—one that affords all citizens an opportunity for bettering their lives—is predicated on adequate opportunity with respect to jobs and the economy, education achievement, quality housing, ample recreation areas, and other related topics.

2. Regulatory Setting

2.2 IMPORTANT TERMS

The following terms and definitions are important for understanding environmental justice and associated planning issues in San Bernardino County and the planning and regulatory context surrounding environmental justice as described in this chapter.

CalEnviroScreen Variables

The CalEnviroScreen (CES) model (version 3.0, released in January 2017 and updated in June 2018; latest available version as of this report's date) defines and uses a range of variables that are listed below. Section 2.3 of this report provides more detail on the aggregation and application of scores for each variable.

■ Environmental Pollution

- **Ozone.** Amount of daily maximum 8-hour ozone concentration
- **Fine particulate matter (PM_{2.5}).** Annual mean PM_{2.5} concentrations
- **Diesel particulate matter.** Diesel PM emissions from on-road and non-road sources
- **Drinking water.** Drinking water contaminant index for selected contaminants
- **Pesticides.** Total pounds of selected active pesticide ingredients (filtered for hazard and volatility) used in production-agriculture per square mile in the census tract
- **Toxic releases.** Toxicity-weighted concentrations of modeled chemical releases to air from facility emissions and off-site incineration (from RSEI)
- **Traffic density.** In vehicle-kilometers per hour per road length, within 150 meters of the census tract boundary
- **Cleanup sites.** Cleanup sites, sum of weighted EnviroStor cleanup sites within buffered distances to populated blocks of census tracts
- **Groundwater threats.** Sum of weighted GeoTracker leaking underground storage tank sites within buffered distances to populated blocks of census tracts
- **Hazardous waste.** Sum of weighted hazardous waste facilities and large quantity generators within buffered distances to populated blocks of census tracts
- **Impaired water bodies.** Sum of number of pollutants across all impaired water bodies within buffered distances to populated blocks of census tracts
- **Solid waste facilities and sites.** Sum of weighted solid waste sites and facilities (SWIS) within buffered distances to populated blocks of census tracts

■ Population Characteristics

- **Asthma.** Age-adjusted rate of emergency department visits for asthma
- **Low birth weight.** Percentage of newborns of low birth weight
- **Cardiovascular disease.** Age-adjusted rate of emergency department visits for heart attacks
- **Education.** Percentage of population over 25 with less than a high school education
- **Linguistic isolation.** Percentage of households that speak limited English
- **Poverty level.** Percentage of population living below two times the federal poverty level. For example, the federal poverty level for a household of four persons was \$24,600 in 2017.
- **Unemployment.** Percentage of the eligible labor force over age of 16 that is unemployed

2. Regulatory Setting

- **Housing burden.** Percentage of low-income households that are housing burdened

Environmental Justice

The EPA defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means no group of people bears a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies.

Environmental Justice Focus Area

For the purpose of this study, an environmental justice focus area (EJFA) is an area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation. For purposes of this report, an EJFA is determined by CES composite scores in the upper quartile (census tracts with composite scores ranking above the 75th percentile). See Section 2.3, *Methodology*, for more details.

Food Desert (Low Income and Low Supermarket Access)

The US Department of Agriculture (USDA) maps food access by census tract. A food desert is an area, especially one with low-income residents, that has limited access (means of transportation or presence of stores) to affordable and nutritious food. The term food desert considers the type and quality of food available to the population, in addition to the number, nature, and size of food stores that are accessible. Food deserts are typically characterized by a lack of access to supermarkets which can decrease a resident's ability to purchase fruits, vegetables, and other whole foods.

Health Professional Shortage Area

Health Professional Shortage Areas (HPSAs) are designated by US Health Resources and Services Administration (HRSA) as having shortages of primary medical care, dental, or mental health providers. The shortage designation may be geographic (a county or service area), a population group (e.g., low income or Medicaid eligible), or facilities (e.g., federally qualified health center).

High Priority Basin

The California Water Code (§10933 and §12924) requires DWR to prioritize California's groundwater basins and subbasins based on eight criteria, and to conduct groundwater basin assessments. As such, DWR ranks groundwater basins as either: Very Low, Low, Medium, High, or Very High. The prioritization reflects groundwater reliance and other required factors specified by the California Water Code and is not an evaluation of the groundwater management of the basins/subbasins. High priority basins are those in which it is determined require a groundwater sustainability plans by 2020.

Legacy Communities

In accordance with state law and guidance provided by the Governor's Office of Planning and Research and San Bernardino County Local Area Formation Commission, the County used the following criteria to identify disadvantaged (as referenced in SB 244) unincorporated legacy communities:

- Located outside of city/town limits and spheres of influence of any city/town;
- Inhabited and has been for at least 50 years (also referred to as a legacy community);

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- Consists of at least 10 dwelling units in close proximity (approximately 1-mile radius); and
- Median household income for the census tract less than 80% of the statewide median.

Low Income Area

SB 1000 allows for two definitions of low-income based on either the statewide or area median income. For the former, any census tract with a median household income at or below 80 percent of the statewide median household income qualifies as a low-income area. The Department of Housing and Community Development defines low income as a median household income at or below 80 percent of the area median adjusted for household size. It is similar to the method used by the federal government to define eligibility thresholds for lower income communities to receive federal funds.

Medically Underserved Area / Population

Medically Underserved Areas/Populations (MUA/P) are areas or populations designated by the HRSA as having too few primary care providers based on the Index of Medical Underservice (IMU). IMU is calculated based on four criteria: the population to provider ratio, the percent of the population below the federal poverty level, the percent of the population over age 65, and the infant mortality rate. IMU can range from 0 to 100, where zero represents the completely underserved. Areas or populations with IMUs of 62 or less qualify for designation as an MUA/P.

Nonattainment Area

A non-attainment area is an area considered to have air quality that does not achieve the National Ambient Air Quality Standards as defined in the Clean Air Act Amendments of 1970. Southern California is a nonattainment area for various air pollutants. Nonattainment areas must have and implement a plan to meet the air quality standard, or risk losing some forms of federal financial assistance. An area may be a non-attainment area for one pollutant and an attainment area for others.

Social Equity

According to the National Academy of Public Administration³, social equity is “the fair, just, and equitable management of all institutions serving the public directly or by contract; the fair, just and equitable distribution of public services and implementation of public policy; and the commitment to promote fairness, justice, and equity in the formation of public policy.” According to the American Planning Association⁴, social equity refers to the expansion of opportunities for betterment that are available to those communities most in need, creating more choices for those who have few.

³ National Academy of Public Administration. Social Equity in Governance [Standing Panel]. Retrieved from <http://www.napawash.org/fellows/standing-panels/social-equity-in-governance.html>

⁴ American Planning Association. (2004). APA policy guide on public redevelopment. Retrieved from <https://planning.org/policy/guides/adopted/redevelopment.htm>

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2.3 METHODOLOGY

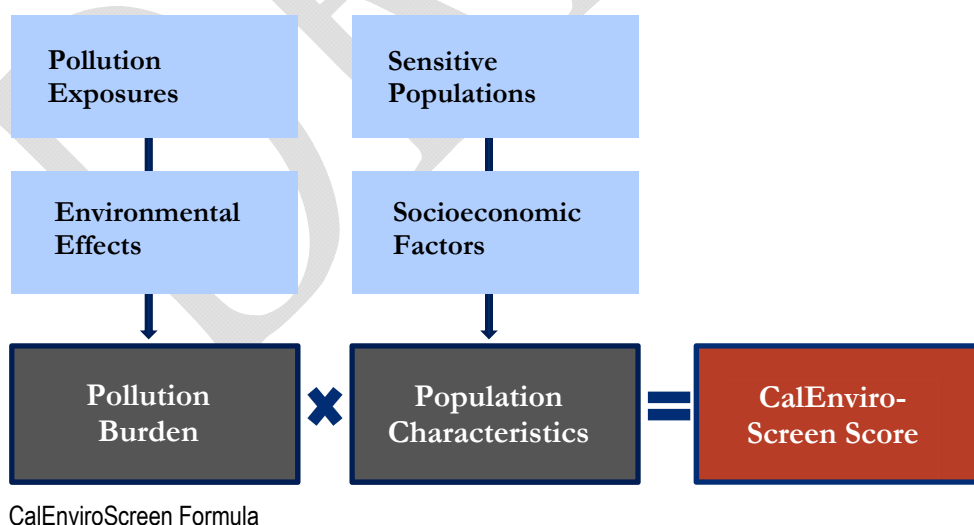
This section covers the methodology used for the EJ analysis. CalEnviroScreen is the primary tool, supplemented by other sources of information for San Bernardino County. It also recognizes that other tools may be appropriate in certain cases to identify EJ concerns.

2.3.1 Identifying Areas for SB 1000

The California Communities Environmental Health Screening Tool, or CalEnviroScreen (CES; version 3.0, released in January 2017 and updated in June 2018), was developed by the Office of Environmental Health Hazards Assessment on behalf of CalEPA. CES is a method for identifying communities that are disproportionately burdened by pollution and/or have a disproportionately vulnerable population. Once such communities are identified, local governments can better understand their needs and target resources appropriately to improve conditions and outcomes in those communities. Version 3.0 was the latest available version and dataset as of this report's preparation.

CES generates a composite score at the census-tract level that assesses disproportionate impacts on California communities. It uses 18 indicators organized across four categories—pollution exposure, environmental effects, sensitive populations, and socioeconomic factors. These categories are summed into two primary metrics—pollution burden and population characteristics—which CES multiplies to arrive at the CES score. The graphic below shows a simplified version of the CES formula.⁵

In accordance with SB 1000, jurisdictions are required to use this tool to help identify areas within their communities where environmental justice concerns may arise. Goals, policies, and programs can then be developed to address concerns.



⁵ This report uses CES data available in January 2018. An evaluation of the June 2018 data found no changes in the quartile rankings for the census tracts in unincorporated San Bernardino County.

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2.3.2 Assessing Environmental Justice Concerns

Defining Terminology

There is no universal definition for “disadvantaged communities” and the term is used and defined in many different ways throughout the country. Even within a state, the term and defining criteria can vary between agencies and laws. For example, disadvantaged communities are defined in the Safe Drinking Water Act as the entire area of a water system or community where the median household income is less than 80 percent of the statewide average. A number of state programs also use a median household income threshold to identify disadvantaged communities. Similarly, the Housing-related Parks Program administered by the California Department of Housing and Community Development implements a statutory definition for disadvantaged communities as census tracts designated by the United States Department of Housing and Urban Development with at least 51 percent of its residents at low- or moderate-income levels. The term is also used in SB 244 (see Section 2.3.3 of this report).

SB 1000’s definition of a disadvantaged community is consistent with Health and Safety Code Section 39711. They include areas that: 1) are disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation; and 2) have concentrations of people with low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.

Additionally, the term “community” can be defined or understood as various geographic places, ranging from a neighborhood to a small unincorporated area or to a small region. CES uses a different geography, opting for a census tract as a proxy for community.

Accordingly, to avoid confusion with other state laws and geographic boundaries, the County refers to those areas considered to be disadvantaged communities under SB 1000 as environmental justice focus areas (EJFA).

Defining Criteria

It should be noted that the threshold to qualify for funding may vary and that CES methodology is subject to change. SB 1000 mandates the use of CES, but it does not identify a specific measure or threshold for classifying an area as disadvantaged. Consistent with CalEPA’s criteria for SB 535, the County uses the following criteria to define an EJFA as any portion of a census tract:

- Within the County’s land use authority; and
- Within a community planning area or unincorporated sphere of influence; and
- A CES composite score in the 75th percentile (upper quartile).⁶

⁶ CalEPA’s methodology for designating disadvantaged communities can be found online at (as of November 2018):

<https://calepa.ca.gov/wp-content/uploads/sites/62/2017/04/SB-535-Designation-Final.pdf>

<https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm>

CalEPA’s methodology also considers tracts with CES pollution burden score in the 95th percentile, but only for 22 census tracts statewide in cases where there was insufficient socioeconomic data to render a composite score. None of these tracts are in unincorporated county areas.

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The County excludes areas outside of a community planning area or unincorporated sphere of influence from EJFAs as such lands are typically unpopulated, surrounded by state or federally owned land, and planned for open space, resource, and land management.

This report also presents statistics for communities on all three CES criteria categories: composite, population characteristics, and pollution burden. This additional information is provided to allow for greater understanding of the census tracts in the context of other laws or funding opportunities.

Assessing Social Equity Concerns

Although the field of environmental justice originally focused on the disproportionate burden of pollution, its goals have greatly expanded. Today, environmental justice's broader platform includes equal access to parks and recreation services, healthy food, affordable housing, public facilities, and full participation and representation in municipal affairs.

While SB 1000 explicitly addresses the disproportionate burden of pollution, the bill does not use the term "social equity." Still, OPR's recent revision to the general plan guidelines suggests that social equity is intertwined in the bill's intent. OPR states that the fields of transportation, housing, agriculture, energy, economic development, land use, health, and education all use social equity considerations to inform policy. Social equity is also one of three key pillars of sustainable development, and equity has been recognized by the American Planning Association in its official policy on smart growth.

Discussions of (in)equity typically involve both identifying the causes of inequity and creating proactive goals, objectives, and programs to reduce inequity and expand opportunities. To that end, inequity has multiple dimensions—e.g., geographic, institutional, and socioeconomic. Geographic inequities could occur where the burdens of undesirable land uses or costs are concentrated in certain neighborhoods and the benefits are received elsewhere. Institutional inequities could occur when laws are enforced unequally, or individuals have unfair access to influence in the shaping of public policy. Socioeconomic inequities may exist when policies and programs have disparate effects on one or more groups.

CalEnviroScreen is not intended to directly measure social (in)equity. Nonetheless, SB 1000 requires that local general plans address social equity issues such as reduction of pollution exposure, access to safe and sanitary housing, healthy food, places for recreation, and public facilities and services. To fill the gap between measuring social inequity and responsive policies and programs, this report will draw from sources that qualitatively and quantifiably define social equity issues in San Bernardino County. These include USDA's food desert mapper, federal health care databases, municipal service reviews, health

EJ is considered an equity issue. It is an integral component of equity, but social equity also encompasses a larger framework such as access to jobs and economic opportunity, arts and culture, safety from violence, public administration, management of goods and services, access to education, and complete neighborhoods. Social equity is applied across the age range and various disciplines and has many other nuances.... Equity can be used as the larger framework for ensuring opportunities for all in the community.

Office of Planning and Research, "2017 General Plan Guidelines"

2. Regulatory Setting

surveys, public safety providers, and other sources. These data will provide a foundation for considering opportunities that could improve social equity as part of the San Bernardino Countywide Plan.

2.3.3 Assessing Communities for SB 244

In 2011, SB 244 addressed the complex barriers that contribute to infrastructure and service deficits in lower income unincorporated communities. Including these communities in the long-range planning of a city or county could result in more efficient delivery systems for water, wastewater treatment, stormwater drainage, and structural fire protection. In turn, investment in these services and infrastructure could enhance and protect public health and safety in these communities. To comply with this legislation and Government Code Section 65302.10(a), this report:

- Identifies and describes each legacy community, as defined by state law, in the county that is a disadvantaged unincorporated community, but within the sphere of influence of a city.
- Includes an analysis of water, wastewater, stormwater drainage, and structural fire protection needs or deficiencies for each of the identified communities.
- Provides foundation material for the land use element of potential funding mechanisms that could make the extension of services and facilities to identified communities financially feasible.⁷

In accordance with state law and guidance provided by OPR, the County used the following criteria to identify lower income unincorporated communities:

- Located outside of incorporated limits and spheres of influence of any city/town.
- Inhabited and has been for at least 50 years (also referred to as a legacy community).
- Consists of at least 10 dwelling units that are close to each other (about 1 unit per acre).
- Median household income of less than 80 percent of the statewide median.

Sb 244 communities were identified using housing and income characteristics from the 2016 American Community Survey (latest available data). Based on this data, the State of California median household income was \$63,783. In accordance with state law, disadvantaged households are those earning 80 percent of the statewide median, which equates to households earning \$51,026 or less.

⁷ California Governor's Office of Planning and Research, Technical Advisory on Senate Bill 244: Land Use, General Plans, and Disadvantaged Communities, 2004.

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3. ENVIRONMENTAL JUSTICE COMMUNITIES

This chapter discusses CalEnviroScreen (CES) results for the geographic areas identified (Table 1-1) for study regarding environmental justice. It begins with an overview of CES results across the entire unincorporated study area and then discusses each of the 10 areas in detail.

3.1 INTRODUCTION

As mentioned earlier, CES uses a complex model to identify challenged census tracts in California. As shown in Table 3-1, the study area includes 87 census tracts that include unincorporated areas (census tracts that cover land exclusively controlled by an incorporated jurisdiction, state, federal, or tribal entity were not included). The table shows the percentage of census tracts that include unincorporated areas with scores in the upper quartile.

Table 3-1 Percentage of Study Area Census Tracts with CES Composite Scores in the Upper Quartile by Region

	Geographic Region				Total
	North Desert	Mountain	Valley	East Desert	
Study Area Census Tracts	25	18	33	11	87
Composite Score > 75th percentile	12%	6%	55%	0%	25%
Pollution Burden > 75th percentile	0%	0%	76%	0%	29%
Population Factors > 75th percentile	44%	17%	42%	0%	32%

Source: CalEnviroScreen, Version 3.0, Office of Environmental Health Hazard Assessment, 2016

Some environmental pollution burdens in San Bernardino County have similarities, but others are more unique to a particular region (see Table 3-2). Air pollution (primarily ozone regionally) and drinking water contamination are the most prevalent issues, affecting 100 percent and 56 percent of such census tracts, respectively. Cleanup sites and solid waste sites are also prevalent in all county regions, affecting about one-quarter of all census tracts that include unincorporated areas. The Valley region has additional potential environmental pollution burdens due to toxic releases from industries, vehicular emissions, and hazardous waste sites.

As shown in Table 3-3, cardiovascular disease and unemployment are the two highest-ranking population characteristics, affecting virtually all areas in the county. The second ranking tier of population characteristics includes asthma, low birth weight, and high poverty. The third ranking tier includes education, housing burden, and linguistic isolation. Of the four regions, the Valley has the most challenging population characteristic scores. Figures 3-1, 3-2, and 3-3 illustrate the CES scores for the study areas based on their composite, pollution, and population scores, respectively.

3. Environmental Justice Communities

Table 3-2 Percentage of Study Area Census Tracts with CES Pollution Indicators in the Upper Quartile by Region

Pollution Issues	Geographic Region				Total
	North Desert	Mountain	Valley	East Desert	
Study Area Census Tracts	25	18	33	11	87
Air Quality	100%	100%	100%	100%	100%
Drinking Water	56%	33%	70%	50%	56%
Toxic Releases	0%	0%	36%	0%	14%
Traffic Density	4%	0%	30%	0%	13%
Cleanup Sites	24%	0%	33%	27%	23%
Groundwater	8%	0%	6%	0%	5%
Hazardous Waste	16%	0%	30%	0%	16%
Impaired Waterways	0%	11%	0%	0%	2%
Solid Waste	24%	28%	36%	36%	31%

Source: OEHHA, CalEnviroScreen, version 3, 2016.

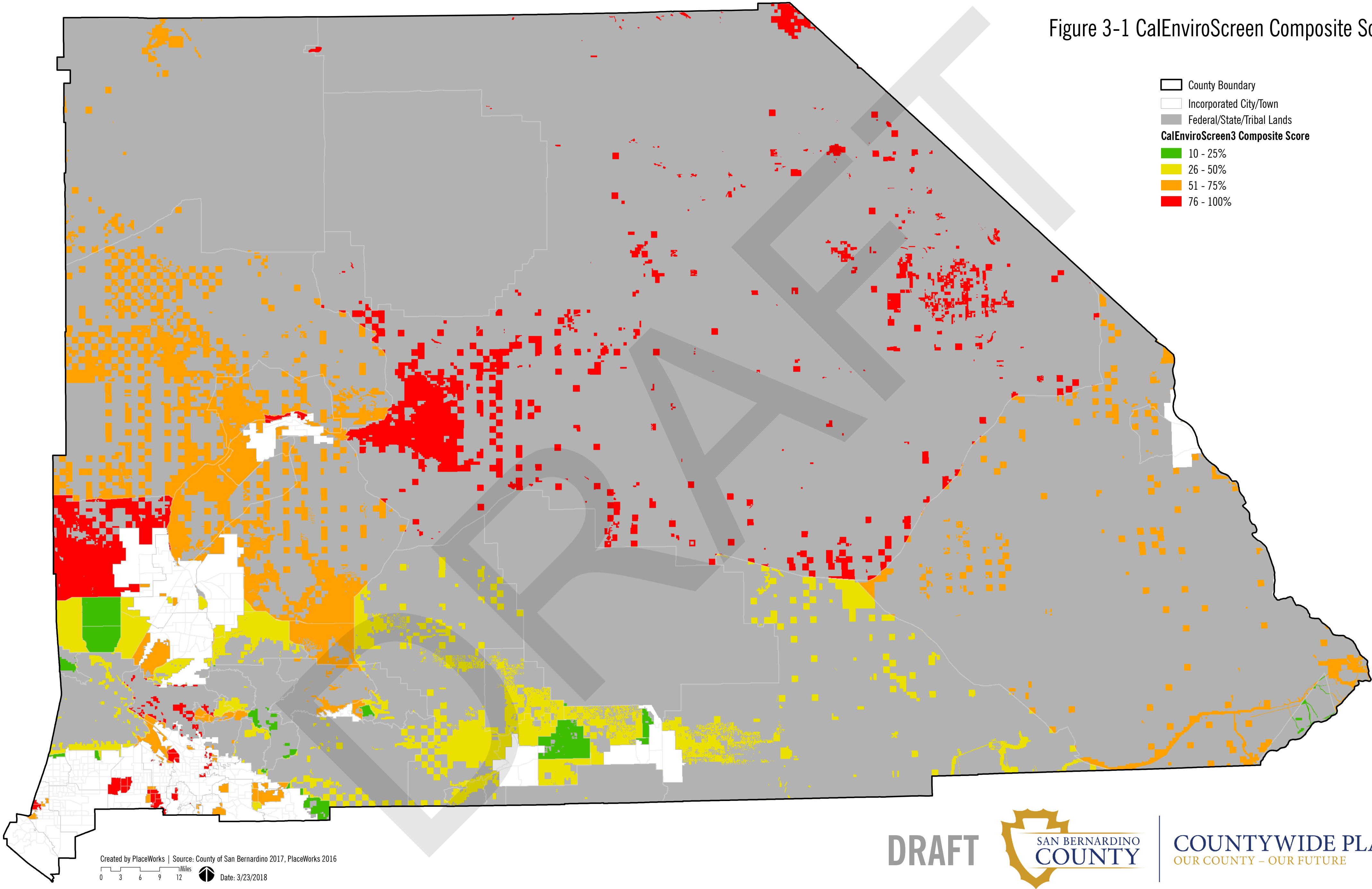
Table 3-3 Percentage of Study Area Census Tracts with CES Population Indicators in the Upper Quartile by Region

Pollution Issues	Geographic Region				Total
	North Desert	Mountain	Valley	East Desert	
Study Area Census Tracts	25	18	33	11	87
Asthma	60%	17%	48%	18%	41%
Low Birth Weight	40%	39%	24%	9%	30%
Cardiovascular Disease	68%	44%	61%	91%	63%
Education	8%	0%	48%	0%	21%
Linguistic Isolation	0%	0%	12%	0%	5%
Poverty	32%	0%	48%	45%	33%
Unemployment	56%	22%	58%	82%	53%
Housing Burden	8%	22%	18%	9%	15%

Source: OEHHA, CalEnviroScreen, version 3, 2016.

Consistent with the County's defining criteria (see Section 2.3, *Methodology*), only areas within the County's land use authority, within a community planning areas or unincorporated sphere of influence, and a composite score in the upper quartile are mapped in Figure 3-4, *Environmental Justice Focus Areas*.

Figure 3-1 CalEnviroScreen Composite Score

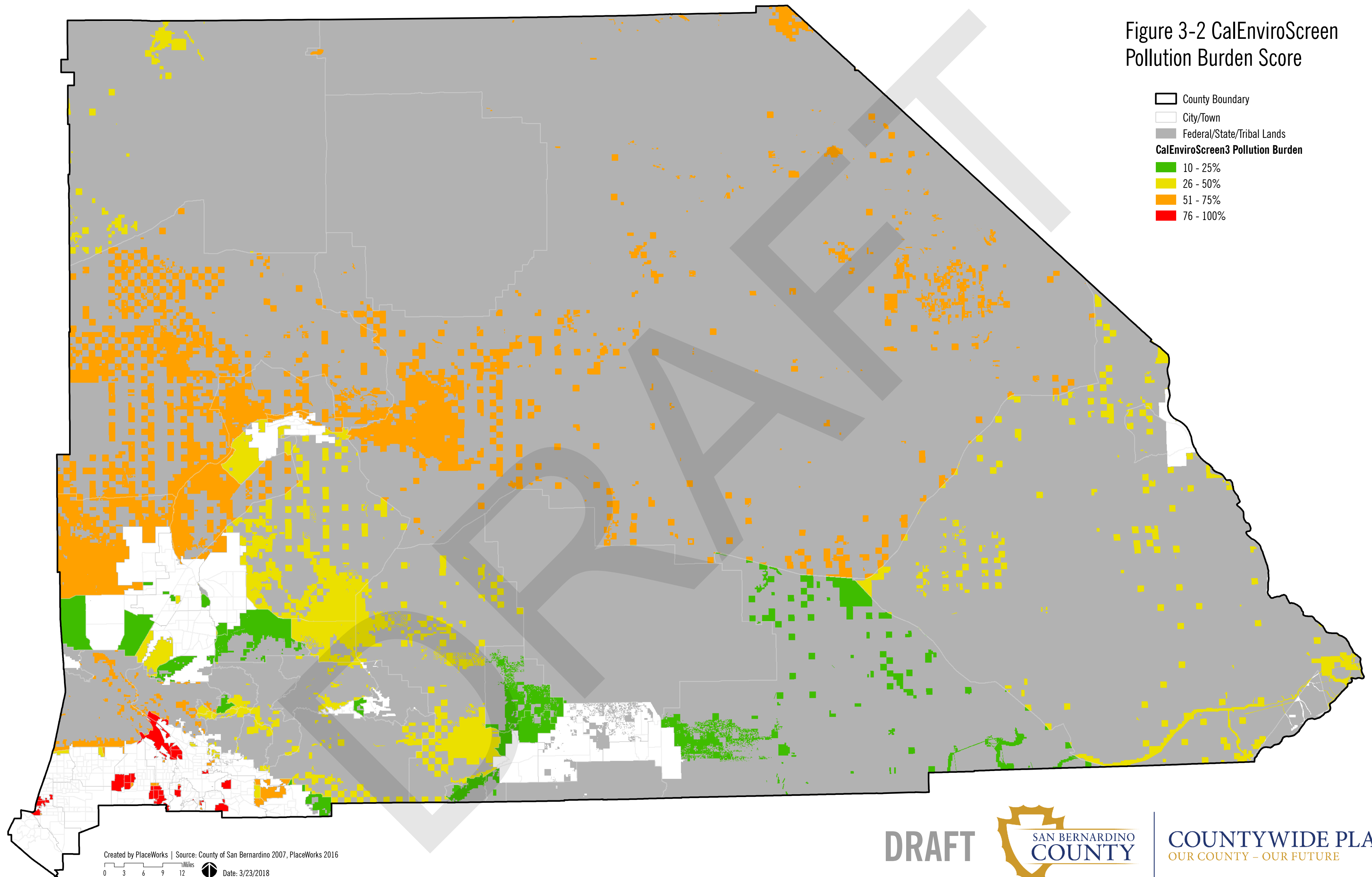


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Figure 3-2 CalEnviroScreen
Pollution Burden Score



Created by PlaceWorks | Source: County of San Bernardino 2007, PlaceWorks 2016

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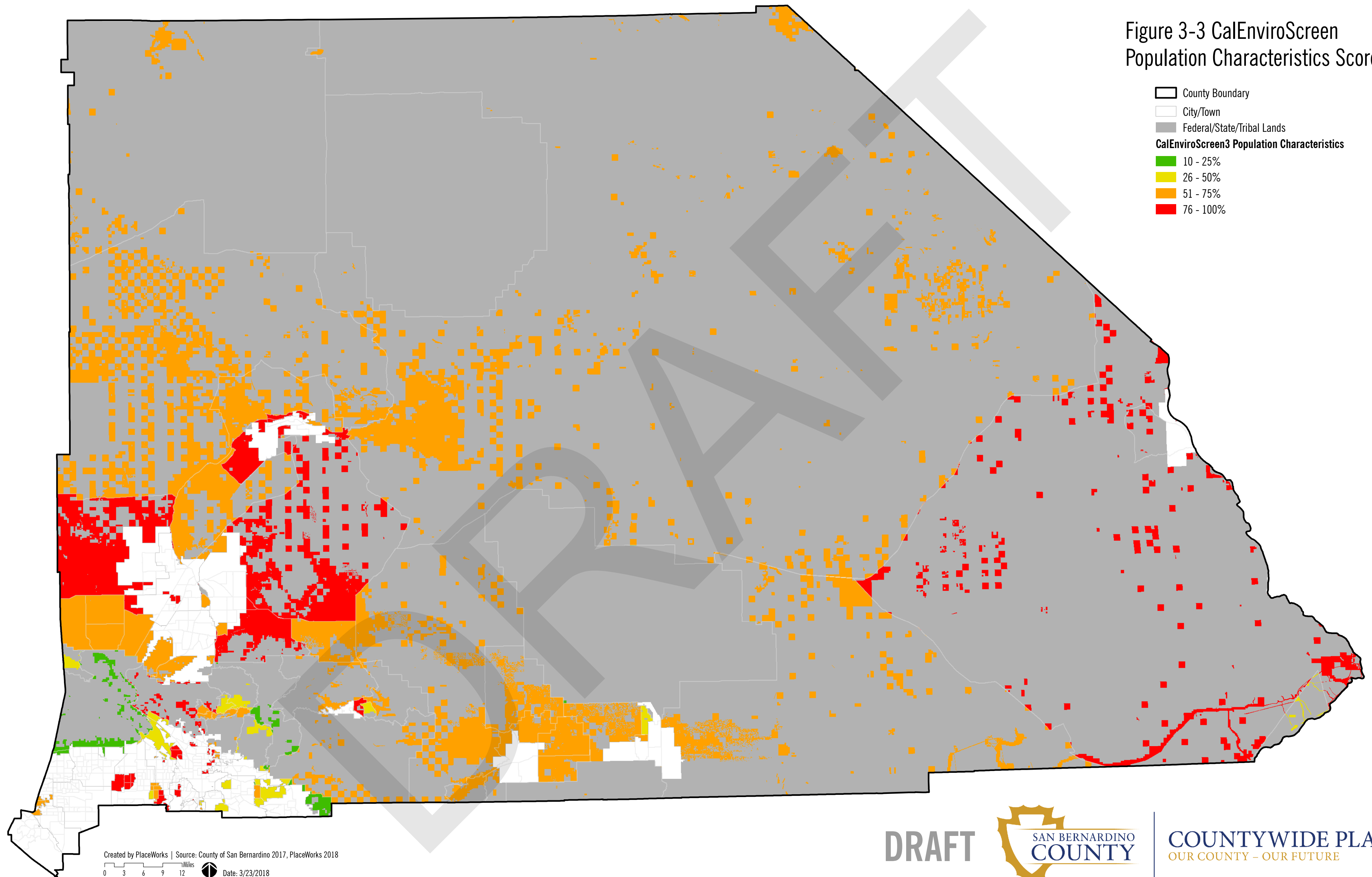
COUNTYWIDE PLAN
OUR COUNTY - OUR FUTURE

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Figure 3-3 CalEnviroScreen
Population Characteristics Score



Created by PlaceWorks | Source: County of San Bernardino 2017, PlaceWorks 2018

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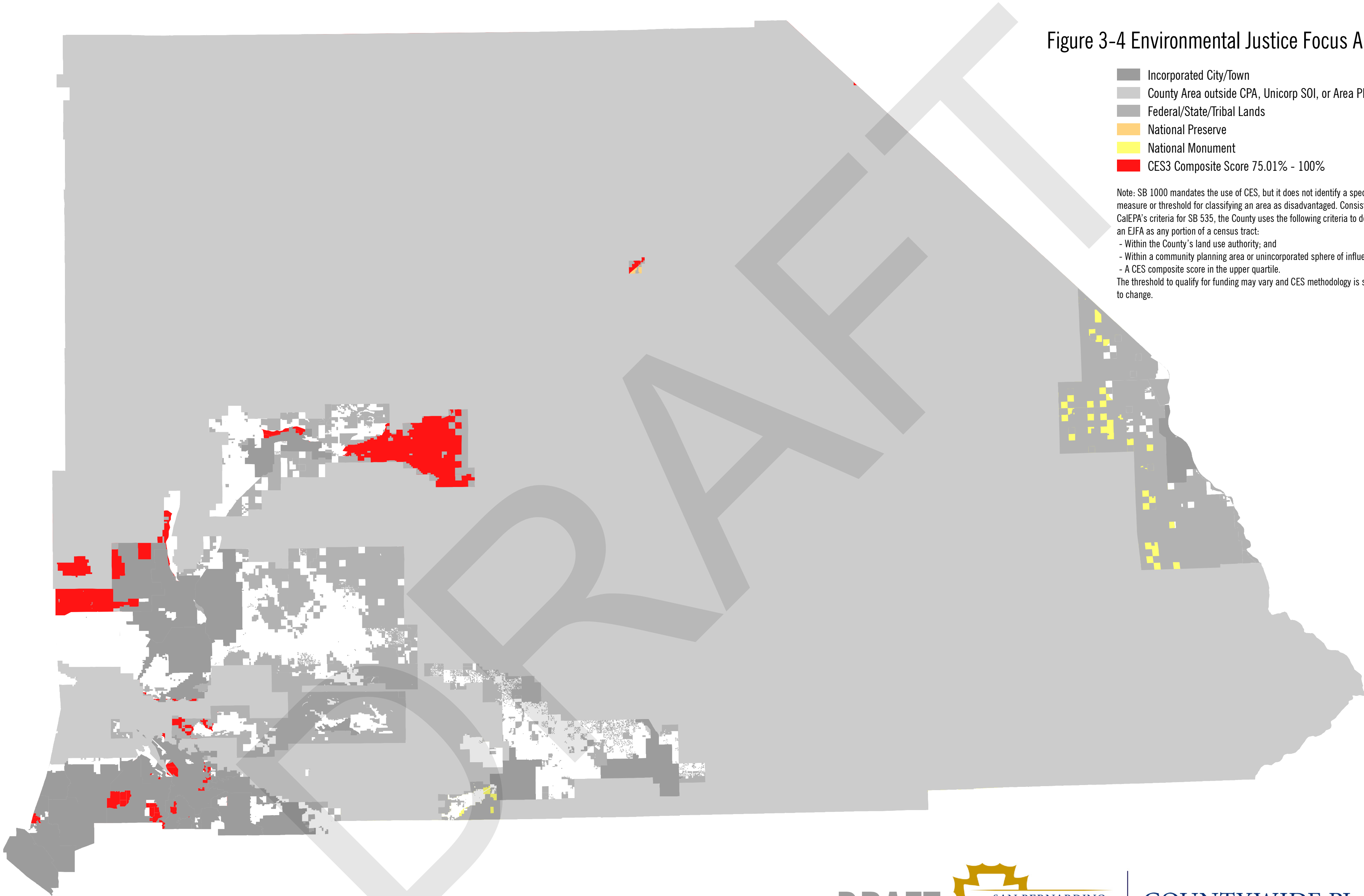
Figure 3-4 Environmental Justice Focus Areas

- Incorporated City/Town
- County Area outside CPA, Unicorp SOI, or Area Plan
- Federal/State/Tribal Lands
- National Preserve
- National Monument
- CES3 Composite Score 75.01% - 100%

Note: SB 1000 mandates the use of CES, but it does not identify a specific measure or threshold for classifying an area as disadvantaged. Consistent with CalEPA's criteria for SB 535, the County uses the following criteria to define an EJFA as any portion of a census tract:

- Within the County's land use authority; and
- Within a community planning area or unincorporated sphere of influence; and
- A CES composite score in the upper quartile.

The threshold to qualify for funding may vary and CES methodology is subject to change.



0 3 6 9 12 Miles



Date: 4/18/18 Created by PlaceWorks | Source: County of San Bernardino 2017, PlaceWorks 2018

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COUNTYWIDE PLAN
POLICY PLAN

3. Environmental Justice Communities

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3.2 LUCERNE VALLEY

Lucerne Valley is in the southwest Mojave Desert, approximately 35 miles south of Barstow. State Routes 18 and 247 intersect at the central point of this community. Lucerne Valley offers a rural lifestyle, characterized by large lots and limited commercial development. The area is distinguished by limited agriculture and significant mineral resource activities. Agriculture and resource conservation/extraction land uses cover approximately 73 percent of the land area, followed by rural residential land uses at 22 percent. The Lucerne Valley Community Plan spans 440 square miles, half of which is unpopulated. Population for this area is estimated at approximately 6,750 residents.

3.2.1 CalEnviroScreen Assessment

For this analysis, the Lucerne Valley covers four census tracts. As shown in Table 3-4a, census tract scores are color-coded by quartiles, with upper quartile scores shown as red. No census tract exhibits a composite score or pollution burden score in the upper quartile, but two tracts have challenging population characteristics. Three of four tracts are lower income tracts.

Table 3-4a Lucerne Valley: CalEnviroScreen Score

Census Tract	Low Income	Percentile and Quartile Rank			Scores in the Upper Quartile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
6071012104	No	66	42	77	AQ DW CS	UE AS CVD
6071012103	Yes	54	39	59	AQ DW SW	POV UE
6071010424	Yes	48	29	58	AQ DW CS SW	POV UE
6071009708	Yes	47	13	79	AQ DW	POV UE AS CVD

Sources: OEHHA, CalEnviroScreen, version 3, 2016.

Rankings:

Quartile 1 = Good	Quartile 2 = Moderate	Quartile 3 = Poor	Quartile 4 = Challenged
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Variables in the CES model:

Pollution Exposure	Environmental Effects	Sensitive Population	Socioeconomic Factors
AQ = Air Quality (incl. Ozone, PM _{2.5} , diesel PM)	CS = Toxic Cleanup Sites	AS = Asthma	LI = Linguistic Isolation
DW = Drinking Water	GW: Groundwater Threats	LB = Low Birth Weight	POV = Poverty
TR = Toxic Releases	HZ = Hazardous Waste	CVD = Heart Disease	UE = Unemployment
TD = Traffic Density	IW = Impaired Waters		HB = Housing Burden
	SW = Solid Waste Sites/Facilities		ED = Educational Attainment

3. Environmental Justice Communities

3.2.2 Assessment by Policy Area

SB 1000 requires that all communities assess at least six environmental issues within their general plans. These include reduction of pollution exposure, improving air quality, promoting public facilities, promoting food access, promoting safe and sanitary housing, and promoting physical activity. In addition, health care infrastructure has been added as an EJ consideration due to health needs and countywide shortage of health care professionals and facilities. The following text and Table 3-4b assess these issues.

Population / Demographics

All census tracts in Lucerne Valley rank in the 3rd or 4th quartile, with a high portion of lower income households. Concerns in Lucerne Valley include higher rates of asthma due to ozone (2 tracts), airborne allergens carried by seasonal winds, and other local pollution sources. Cardiovascular disease scores in the upper quartile for two tracts and may be the result of a 37 percent obesity rate (12 points above the state average). Three tracts in Lucerne Valley have poverty and unemployment rates scored in the upper quartile.

Environmental Pollution Burden

Several census tracts have pollution burden scores measured in the upper quartile. Like much of southern California, the area has some of the highest levels of ozone in the state. Mining industries are present, but must conduct risk assessments and provide mitigation, as required by the regional air quality management district. Lucerne Valley is home to four landfills (two are closed), including the Mitsubishi Cement Plant, and several military cleanup sites. Still, the overall environmental pollution burden is relatively low compared to regional and statewide census tracts.

Water, Sewer, Police, and Fire Service Infrastructure

Infrastructure services are generally limited due to Lucerne Valley's remote location. Drinking water quality meets state and federal health standards but may be vulnerable to contaminants. None of the census tracts exhibit pollution scores in the upper quartile, although the basin has high levels of dissolved salts. County Sheriff and Fire Department provide safety services. Fire response times do not meet National Fire Protection Association standards due to the remote location. Sheriff response times are unknown.

Access to Health-Supporting Land Uses

Access to health-supporting uses is a challenge for most residents in Lucerne Valley. Although the area is not a food desert, the level of food insecurity is potentially high. Lucerne Valley has a limited supply of full-service grocery outlets, and a high percentage of residents depend on Cal-Fresh vouchers to afford food. As in most rural areas, there are limited developed parks and no bicycle trails, but ample outdoor amenities for recreational activities. Certain parts of Lucerne Valley and certain types of housing have housing rehabilitation needs. The area also has a shortage of health professionals.

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Civil Engagement

With daytime Planning Commission and Board of Supervisors meetings and a conventional notification process, it can be difficult for residents in this area to learn about and provide input on proposed development in a timely manner that substantively and effectively impacts the decision making process. Many parts of this area are far from public meeting sites, and most of the area does not have good internet access. Less than 5 percent of households in Lucerne Valley do not speak English well.

Table 3-4b Lucerne Valley: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
Reduction of pollution exposure and improving the quality of air	Exposure to Pollution The Lucerne Valley area is known for several potential pollutants, including groundwater contaminants, cleanup sites due to military land uses, solid waste landfills, and mining operations. However, it should be noted that exposure to pollutants may be low as land uses are in unpopulated areas.
	Air Quality Lucerne Valley is in the Mojave Air Quality Management District. Like much of southern California, the region has significant air quality issues. The region does not meet federal standards for ozone and respirable particulate matter (PM ₁₀) or state standards for ozone and respirable and fine particulate matter.
Promoting public facilities (including infrastructure and community services)	Water and Sewer Lucerne Valley is served by septic tanks and leach field systems with no ability to support the installation of a wastewater treatment plant due to the extremely low levels of population and density. Water is supplied by 10 private water purveyors and is supplemented by private wells. According to the USGS, untreated groundwater has high levels of nitrates and total dissolved solids that must be treated.
	Fire and Sheriff County Fire Stations #8 and #9 serve Lucerne Valley. Reported response times are 10 to 12 minutes—both higher than NFPA standards, due primarily to the extremely low levels of population and density. The San Bernardino County Sheriff's Department's Victor Valley Station and Lucerne Valley Station serve Lucerne Valley. No information is available on response times for the sheriff.
Promoting food access	Food Access Lucerne Valley has an estimated 3 grocers/markets, of which 1 food store accepts women-infant-children vouchers. Four additional food outlets are designated as Cal-Fresh certified vendors. Although the area has limited healthy food outlets, Lucerne Valley is not designated as a food desert by USDA.
	Food Security Food insecurity is potentially high. No specific surveys have been taken regarding households and food security. However, approximately 1,150 residents in Lucerne Valley receive Cal-Fresh food vouchers. In the Lucerne Valley Unified School District, 41% of children are eligible for free or reduced-price meals.
Promoting health care infrastructure	Health Needs Health needs are significant—including a 37% adult obesity (11 points above the state average), 23% of working age adults in poor health, 8% heart disease rate, and 13% diabetes rate (50% above the state average). The majority of health infrastructure is located 15 miles west in Apple Valley.
	Health Care Infrastructure Lucerne Valley is a health professional shortage area (HPSA) for dental, mental health, and primary care services. It is also a medically underserved area. The area does not have a hospital, skilled nursing facility, or community clinic, although St. Mary Medical provides a mobile health clinic to serve the area.
Promoting safe and sanitary housing	Housing Community workshop input indicated that vacant housing units contribute to substandard housing. Homelessness was also a concern. Code enforcement and demolition of substandard housing was cited as the most pressing need. Absentee landlords are letting houses fall apart and deteriorate, affecting property values of surrounding residences. Issues of fair housing and allocation of federal funding are addressed in the County's Analysis of Impediments to Fair Housing and its Consolidated Plan.
	Level of Physical Activity

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Promoting physical activity	Physical fitness among youth is a concern; state physical fitness tests show that almost 2/3 of 9th graders need improvement in aerobic capacity—about 26 percentage points above the state average. About 37% of adults in Lucerne Valley were obese—12 percentage points above the state average.
	Opportunities for Physical Activity BLM lands, which comprise half of all the land in Lucerne Valley, provide opportunities for camping, rock climbing, hiking, and OHV use. Lucerne Valley has two parks. There are no pedestrian and bicycling routes or sidewalks, though the streets may be used by pedestrians and cyclists given its low traffic volumes.

3.3 SOUTHWEST HIGH DESERT

The Southwest High Desert area is in the southwest portion of the County, directly north of the San Gabriel Mountains, and east of I-15. It includes the community plan areas of Phelan/Pinon Hills, and Oak Hills. This area also encompasses parts of Baldy Mesa. Access to this area is obtained by the I-15, State Routes 138 /395, and Highway 2. Generally, the Southwest High Desert is known for its rural lifestyle and characterized by large lots, large homes, agricultural uses, and several larger commercial developments near I-15. Rural living makes up most land uses, with the remaining a mix of residential, commercial, and industrial uses. The north end of the area transitions to the El Mirage Valley.

3.3.1 CalEnviroScreen Assessment

The Southwest High Desert area covers five census tracts in Phelan/Pinon Hills (PPH) or Oak Hills (OAK). Table 3-5a shows that no tract exhibits composite, pollution burden, or population scores in the upper quartile. Only one tract is a low income tract.

Table 3-5a Southwest High Desert: CalEnviroScreen Score

Census Tract	Low Income	Percentile and Quartile Rank			Scores in the Upper Quartile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
6071009107 (PPH)	Yes	35	13	56	AQ SW	None
6071009109 (PPH)	No	25	5	56	AQ	None
6071009108 (PPH)	No	20	2	57	AQ	UE
6071010017 (OAK)	No	56	41	61	AQ DW	LB UE
6071009119 (OAK)	No	43	18	64	AQ HW	UE CVD

Sources: CalEnviroScreen, Version 3.0, Office of Environmental Health Hazard Assessment, 2016

Rankings:

Quartile 1 = Good	Quartile 2 = Moderate	Quartile 3 = Poor	Quartile 4 = Challenged
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Variables in the CES model:

Pollution Exposure	Environmental Effects	Sensitive Population	Socioeconomic Factors
AQ = Air Quality (incl. Ozone, PM _{2.5} , diesel PM)	CS = Toxic Cleanup Sites	AS = Asthma	LI = Linguistic Isolation
DW = Drinking Water	GW: Groundwater Threats	LB = Low Birth Weight	POV = Poverty
TR = Toxic Releases	HZ = Hazardous Waste	CVD = Heart Disease	UE = Unemployment
TD = Traffic Density	IW = Impaired Waters		HB = Housing Burden
	SW = Solid Waste Sites/Facilities		ED = Educational Attainment

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3.3.2 Assessment by Policy Area

SB 1000 requires that all communities assess at least six environmental issues in their general plans—reducing pollution exposure, improving air quality, promoting public facilities, promoting food access, promoting safe and sanitary housing, and promoting physical activity. In addition, health care infrastructure has been added as a potential EJ consideration due to the unmet health needs countywide. The following text and Table 3-5b assess these policy areas.

Population / Demographics

For population characteristics, no census tracts in the Southwest High Desert are in the upper quartile, but all rank in the 3rd quartile. Common concerns include a very high unemployment rate (3 tracts), due in part to their more remote location from job centers, and a higher poverty rate. Pinon Hills is the only area designated as a lower income community. Health concerns include emergency room visits for cardiovascular disease (4 tracts rank in the 3rd quartile) and a high obesity rate, exceeding 30 percent. Residents also report difficulty accessing health services.

Environmental Pollution Burden

Although no census tract exhibits a pollution score in the upper quartile, the Southwest High Desert has localized sources of pollution that likely exceed the 75th percentile. The area has high levels of ozone and drinking water quality is vulnerable due to contaminants in groundwater supply. Contaminants range from nitrates (due to septic systems) in the Phelan subarea to chromium 6 in the Oak Hills subarea. Several large generators of hazardous waste are responsible for the area's poorer ranking. Even with these pollutant sources, the area has one of the lowest (best) scores for pollution burden.

Water, Sewer, Police, and Fire Service Infrastructure

Phelan can access sufficient water supply, although the Sheep Creek Water Company overlays a high priority (overdrawn) groundwater basin that relies on snow melt. County Service Area 70 Zone J (Oak Hills) experiences some water quality/supply issues. The basin is a high priority groundwater basin under state law and will require a groundwater management plan. The prevalence of septic systems in the area poses a risk to drinking water, and LAFCO has identified hexavalent chromium contamination of drinking water as an issue for Oak Hills. County Sheriff and Fire Department provide safety services. Fire response times meet National Fire Protection Association standards. Sheriff response times are unknown.

Access to Health-Supporting Land Uses

Access to health-supporting land uses is a challenge for residents in the Southwest High Desert. Although the area is not identified as a food desert, the area has a limited supply of full-service grocery outlets and a high percentage of residents on Cal-Fresh vouchers. There are limited parks and no bicycle

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trails. Certain parts of the Southwest High Desert have housing rehabilitation needs. The area is an HPSA for mental health and primary care professionals and residents must travel to other cities to access needed medical care. Pinon Hills is also a medically underserved area.

Civil Engagement

With daytime Planning Commission and Board of Supervisors meetings and a conventional notification process, it can be difficult for residents in this area to learn about and provide input on proposed development in a timely manner that substantively and effectively impacts the decision making process. Many parts of this area are far from public meeting sites, but most of the area has good internet access. Additionally, less than 5 percent of households in these Southwest High Desert communities do not speak English well.

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Table 3-5b Southwest High Desert: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
Reduction of pollution exposure and improving the quality of air	Pollution Exposure Southwest High Desert is known for several potential pollutants, including groundwater contaminants, septic sites, solid waste landfills, and hazardous wastes. However, it should be noted that many of these uses may not be located near highly populated areas.
	Air Quality Southwest High Desert is in the Mojave Air Quality Management District. Like much of southern California, the region has significant air quality issues. The region does not meet federal standards for ozone and respirable particulate matter (PM ₁₀) or state standards for ozone and respirable and fine particulate matter.
Promoting public facilities (including infrastructure and community services)	Water and Sewer These three communities rely primarily on groundwater sources. Phelan/Pinon Hills (PPH) is served by its CSD; Oak Hills is served by CSA 70J. The area was developed with septic tanks and leach field systems with no ability to support the installation of a regional wastewater treatment plant due to the extremely low levels of population and density. PPH water quality is vulnerable to nitrates from septic systems. CSA 70 J water sources exceed maximum contaminant levels for hexavalent chromium. The State Water Resources Control Board has recommended that Phelan be converted to a sewer system.
	Fire and Sheriff San Bernardino County Fire Station 10 serves Phelan/Pinon Hills and Station 40 serves Oak Hills. Both stations maintain a response time of 8–10 minutes—within NFPA standards. Police service is provided by the County Sheriff's office in Victorville. Response time for emergencies is unavailable. Roadway infrastructure is typically paved, with limited supporting amenities (e.g., lighting, sidewalks, etc.)
Promoting food access	Food Access The area has 4 general grocery stores (of which 1 accepts women-infant-children vouchers) and about 12 stores that are Cal-Fresh–certified vendors. There is one farmers market in Phelan. The area has limited grocers, though the area is not designated a food desert by USDA. These communities have limited access to fresh, nutritious food due to the distance to grocery stores and community gardens.
	Food Security Food insecurity is a concern. No specific surveys have been taken regarding households and food security. However, approximately 2,500 residents in Phelan/Pinon Hills receive Cal-Fresh food vouchers. In the Snowline USD, about 66% of children are eligible for free or reduced-price meals.
Promoting health care infrastructure	Health Needs Key issues include a 31% obesity rate (6 percentage points above the state average), 10% rate of diabetes diagnosis, and slightly high rates of poorer mental health and family impairments. The area also reported a higher percentage of residents delaying prescriptions and medical service (25%).
	Health Care Infrastructure Southwest High Desert is designated as an HPSA for mental health and primary care services. Of the three areas, Pinon Hills is also designated a medically underserved area. These three areas do not have a hospital, skilled nursing facility, community clinic, rural clinic, or publicly available health facility. Available facilities are 10 to 20 miles northeast of these communities.
Promoting safe and sanitary housing	Housing Comments at community workshops noted a high rate of vacant homes, but not the presence of unsafe or unsanitary housing. Additional complaints included public nuisances (junk/trash, vacant structures, illegal dumping), illegal land use, a need to address demolition/rehabilitation issues, and illegal structures. In Oak Hills, common code enforcement issues included illegal dumping, group homes, and junk/trash in yards.
Promoting physical activity	Level of Physical Activity State physical fitness tests show that almost 1/3 of 9th graders need improvement in aerobic capacity or weight status—on par with state averages. About 30% of adults in Southwest High Desert are obese—about 6 percentage points above the state average. Surveys also report that fewer residents regularly walk.
	Opportunities for Physical Activity Primary recreational outlets include trails, hiking, and outdoor sports. including off-highway vehicle (OHV) use. Roadways have limited pedestrian and bicycling facilities and other amenities due to light traffic

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Table 3-5b Southwest High Desert: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
	volumes. All three communities have an interest in creating, maintaining, and using multiuse trails for hiking, bicycling, and horse riding.

3.4 EL MIRAGE VALLEY | ORO GRANDE

El Mirage is an unincorporated community in the High Desert/Victor Valley, north of Pinon Hills. El Mirage offers a rural desert lifestyle, characterized by large lots, residential uses, and agricultural uses. The El Mirage Community Plan area spans 11 square miles (40 percent is unpopulated) and has a population of about 500 residents. It is known for the El Mirage Dry Lake Off-Highway Vehicle Recreation Area. Oro Grande lies to the northeast of El Mirage adjacent to Adelanto. Oro Grande is a community of approximately 800 people and is oriented around the mining industry. Oro Grande land uses consists primarily of large lot residential, agricultural lands, and industrial uses.

3.4.1 CalEnviroScreen Assessment

The El Mirage Valley (EM) and Oro Grande (OG) area covers two census tracts. Helendale data was not available from CES.⁸ Table 3-6a shows that El Mirage exhibits high composite and population characteristic scores. Both census tracts are also designated as low income tracts. All other indicators for both communities fall in the third quartile.

Table 3-6a El Mirage Valley and Oro Grande: CalEnviroScreen Score

Census Tract	Low Income	Percentile and Quartile Rank			Scores in the Upper Quartile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
6071011700 (OG)	Yes	73	58	74	AQ DW SW	LB CVD POV
6071009117 (EM)	Yes	92	63	99	AQ DW CS HW	AS LB CVD ED POV UE HB

Sources: OEHHA, CalEnviroScreen, version 3, 2016.

Rankings:

Quartile 1 = Good	Quartile 2 = Moderate	Quartile 3 = Poor	Quartile 4 = Challenged
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Variables in the CES model:

Pollution Exposure	Environmental Effects	Sensitive Population	Socioeconomic Factors
AQ = Air Quality (incl. Ozone, PM _{2.5} , diesel PM)	CS = Toxic Cleanup Sites	AS = Asthma	LI = Linguistic Isolation
DW = Drinking Water	GW: Groundwater Threats	LB = Low Birth Weight	POV = Poverty
TR = Toxic Releases	HZ = Hazardous Waste	CVD = Heart Disease	UE = Unemployment
TD = Traffic Density	IW = Impaired Waters		HB = Housing Burden
	SW = Solid Waste Sites/Facilities		ED = Educational Attainment

⁸ Helendale comprises only one part of a larger tract that includes Hinkley. Data could not be derived from CES that would be accurate and representative of Helendale; therefore, an area-specific analysis could not be conducted.

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3.4.2 Assessment by Policy Area

SB 1000 requires that all communities assess at least six environmental issues within their general plans. These include reduction of pollution exposure, improving air quality, promoting public facilities, promoting food access, promoting safe and sanitary housing, and promoting physical activity. In addition, health care infrastructure has been added as a potential EJ consideration due to the unmet health needs countywide. The following text and Table 3-6b assess the above policy areas.

Population / Demographics

One tract is in the 99th percentile; the other is high as well. In El Mirage, the majority of population characteristics (employment, heart disease, educational attainment, and poverty) score in the upper quartile. Within the Oro Grande area, which includes part of Adelanto, population characteristics of concern include heart disease, poverty, and low birth weight. Chronic diseases include high obesity rates (39 percent), diabetes (14 percent), fair or poor health among adults ages 18 to 64 (30 percent)—all well above county and state averages. Both communities are designated low income census tracts. Information about Helendale is not available.

Environmental Pollution Burden

Many individual components of the pollution burden score exceed the 75th percentile. Air quality (ozone) measures in the 98th percentile due to regional air quality and the flow of air pollutants. Residents rely on groundwater, which has shown high levels of arsenic, boron, chromium, fluoride, total dissolved solids, lead, and more. Hazardous waste sites are present due to legacy industrial uses, such as the military/aerospace, waste storage facilities, mining, and other hazardous waste generators.

Water, Sewer, Police, and Fire Service Infrastructure

Oro Grande water service is through CSA 42; an area deemed a hotspot by LAFCO as well as a high priority groundwater basin by the State of California. Oro Grande connects to a wastewater treatment plant in Victorville. El Mirage has water supply and groundwater contamination concerns. El Mirage is served by individual septic systems. County Sheriff and Fire Department provide safety services. Fire response times are 8 minutes for Oro Grande (from Station 311) and 19 minutes for El Mirage (from Station 322). Sheriff response times are unknown. Roadway infrastructure has limited improvements.

Access to Health-Supporting Land Uses

Access to health-supporting land uses is limited for residents in El Mirage and Oro Grande. Although the area is not defined as a food desert, the area has a limited supply of full-service grocery stores and a high percentage of residents on Cal-Fresh vouchers. There is one park each in El Mirage and Oro Grande, but no bicycle trails. Certain parts of this area also have housing rehabilitation needs. The area is designated a medically underserved area/population, and both areas are designated HPSAs for primary care and mental health care. Oro Grande is a designated HPSA for dental care as well.

Civil Engagement

With daytime Planning Commission and Board of Supervisors meetings and a conventional notification process, it can be difficult for residents in this area to learn about and provide input on proposed

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development in a timely manner that substantively and effectively impacts the decision making process. Additionally, this area is far from public meeting sites, most households do not have good internet access, and approximately 11 percent of households do not speak English well.

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Table 3-6b El Mirage Valley and Oro Grande: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
Reduction of pollution exposure and improving air quality	Pollution Exposure El Mirage has hazardous waste cleanup sites from past military and aerospace uses, groundwater threats, and a remediated/closed hazardous waste storage facility. Large hazardous waste generators are also near Adelanto. Oro Grande has drinking water concerns and solid waste sites.
	Air Quality El Mirage and Oro Grande are in the Mojave Air Quality Management District. Like much of southern California, the region has air quality issues. The region does not meet federal standards for ozone and respirable particulate matter (PM ₁₀) or state standards for ozone and respirable and fine PM _{2.5} .
Promoting public facilities (including infrastructure and community services)	Water and Sewer El Mirage has limited water infrastructure and relies on private wells that tap into the aquifer. El Mirage is also reliant on septic tanks and leach fields, with no ability to support the installation of a regional wastewater treatment plant due to the extremely low levels of population and density. Groundwater has been known to be vulnerable to contaminants. Oro Grande has sufficient water, but lacks adequate storage, is a high priority basin, and is susceptible to contaminants.
	Fire and Sheriff County Fire Station 311 serves El Mirage and responds in an average of 19 minutes. Station 322 serves Oro Grande at an average response time of 8 minutes. Both exceed national standards primarily due to the low levels of population and density. Police service is provided by the County Sheriff in Victorville and response time is not known.
Promoting health care infrastructure	Health Needs Health needs for El Mirage and Oro Grande are significant—including a 39% adult obesity (13 points above the state average), 30% of working age adults in fair or poor health (50% higher than state averages), 14% diabetes rate (50% above the state average), and higher asthma rates among adults. Heart disease is also a significant concern in the area.
	Health Care Infrastructure Both El Mirage and Oro Grande are designated a HPSA for mental health and primary care services and is a medically underserved area. Both areas have limited medical infrastructure, and residents must travel some distance to access facilities in other communities.
Promoting food access	Food Security The poverty rate in El Mirage and Oro Grande is 30%, which is twice the state average. As a result, food insecurity is similarly high, affecting 16% of low income households, twice the state average. In El Mirage and Oro Grande schools, over 70% of children are eligible for free or reduced-price meals.
	Food Access El Mirage has limited grocery outlets, limited to a cluster near SR-395 in Adelanto. There are no WIC (Women, Infants, and Children) vendors and only 1 Cal-Fresh-certified vendor in El Mirage. Due to the general lack of access to nearby stores, El Mirage is designated a food desert. Oro Grande also has limited food options, but is not considered a food desert due to its access to stores in Victorville.
Promoting safe and sanitary housing	Housing As part of the consolidated plan process, residents indicated a need to promote safe and sanitary housing. Although housing is relatively affordable in El Mirage and Oro Grande compared to other areas, concerns remain. Residents mentioned that abandoned homes should be demolished or rehabbed; code enforcement is understaffed; more is needed.
Promoting physical activity	Level of Physical Activity Among youth ages 5 to 17, 26% participated in at least of one hour of physical exercise regularly versus 24% in the county and 21% in the state. For adults, the percentages of adults who walked more than 150 minutes per week was lower in the area versus the county and state averages.
	Opportunities for Physical Activity Recreational outlets include trails and outdoor sports, including opportunities in state and federal parks. The unincorporated areas in the community plan areas have few developed parks. Road have limited pedestrian and bicycling facilities. This is not uncommon for desert roads.

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3.5 CENTRAL VICTOR VALLEY

Central Victor Valley includes nine census tracts that fall within the sphere of influence of Victorville, Apple Valley, and Hesperia. It is important to note that many of these sphere of influence areas are very small portions of census tracts and may not have a significant population. However, for purposes of this analysis, all census tracts that contain a sphere of influence area are included. Since the census tracts are much larger than the SOI area, the results are more reflective of the census tracts rather than SOI.

3.5.1 CalEnviroScreen Assessment

No census tracts have composite or pollution burden scores in the upper quartile. However, five census tracts scores exceed the 75th percentile for population characteristics. Three of the nine tracts are considered low income. Table 3-7a describes the results and a summary assessment follows.

Table 3-7a Central Victor Valley: CalEnviroScreen Score

Census Tract	Low Income	Percentile and Quartile Rank			Scores Exceeding the 75 th Percentile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
6071009911 (VV)	No	48	11	85	AQ	AS CVD UE
6071009110 (VV)	No	56	25	77	AQ	AS LB
6071009910 (VV)	No	65	29	89	AQ TD	AS CVD LB UE
6071010004 (VV)	No	44	17	66	AQ	AS CVD HB
6071010024 (HES)	No	44	24	59	AQ DW	AS CVD
6071009712 (AV)	Yes	39	3	92	AQ	AS CVD POV UE HB
6071009707 (AV)	Yes	46	17	70	AQ DW	AS CVD
6071012101 (AV)	No	67	54	68	AQ SW	AS CVD LB
6071009114 (VV)	Yes	52	11	91	AQ	AS CVD LB POV UE

Sources: CalEnviroScreen, Version 3.0, Office of Environmental Health Hazard Assessment, 2016

Rankings:

Quartile 1 = Good	Quartile 2 = Moderate	Quartile 3 = Poor	Quartile 4 = Challenged
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Variables in the CES model:

Pollution Exposure
AQ = Air Quality (incl. Ozone, PM2.5, diesel PM)
DW = Drinking Water
TR = Toxic Releases
TD = Traffic Density

Environmental Effects
CS = Toxic Cleanup Sites
GW: Groundwater Threats
HZ = Hazardous Waste
IW = Impaired Waters
SW = Solid Waste Sites/Facilities

Sensitive Population
AS = Asthma
LB = Low Birth Weight
CVD = Heart Disease

Socioeconomic Factors
LI = Linguistic Isolation
POV = Poverty
UE = Unemployment
HB = Housing Burden
ED = Educational Attainment

3.5.2 Assessment by Policy Area

SB 1000 requires that all communities assess at least six environmental issues within their general plans. These include reduction of pollution exposure, improving air quality, promoting public facilities, promoting food access, promoting safe and sanitary housing, and promoting physical activity. In

3. Environmental Justice Communities

addition, health care infrastructure has been added as a potential EJ consideration due to the unmet health needs countywide. The following text and Table 3-7b assess the above policy areas.

Population / Demographics

Five census tracts exceed the 75th percentile, and the remaining four census tracts fall within the third quartile. Within this area, population characteristics of concern include asthma (nine tracts), heart disease (seven tracts), poverty and unemployment (four tracts), and housing burden (two tracts). Chronic diseases include high obesity rates (36 percent) and diabetes (14 percent), well above county and state averages. Three of the nine census tracts where county islands exist are designated low income tracts. It should be noted, though, that the unincorporated area represents only a portion of each tract; therefore, the results for the census tract may not apply to the unincorporated area.

Environmental Pollution Burden

Many of the census tracts here score better than census tracts in the state of California as a whole. One exception is air quality (due to ozone at nearly the 98th percentile) in all census tracts, including one of the poorest rankings in California. High levels of asthma are due in part to the high winds and allergens in the High Desert. Drinking water quality scores exceed the 75th percentile in two census tracts due to past violations of maximum contaminant levels, and one census tract exceeds the threshold for traffic density.

Water, Sewer, Police, and Fire Service Infrastructure

Water service for the unincorporated areas is provided primarily by CSA 64, Victorville Water District, and Liberty Utilities. None of the areas are considered a hotspot by LAFCO, although many are a high priority for a groundwater management plan. Sewer infrastructure appears to have adequate capacity, as documented by technical reports for the countywide plan. County Sheriff provides safety services though response times are unknown. County Fire also serves the area though response times are unknown. Roadway infrastructure condition is generally good except for outlying areas.

Access to Health-Supporting Land Uses

Access to health-supporting land uses is mixed for residents in the broader Victor Valley area. Although much of the Victor Valley is defined as a food desert, the unincorporated areas covered under this report are outside those areas. The area generally has several parks available for residents although the acreage is below Quimby Act standards. The number and quality of bicycle trails and pedestrian amenities is mixed; most areas outside the urban area lack bicycle and pedestrian amenities. The Victor Valley area is also designated a medically underserved area/population, and HPSAs for primary care and mental health care. Portions also are classified as dental HPSAs.

Civil Engagement

With daytime Planning Commission and Board of Supervisors meetings and a conventional notification process, it can be difficult for residents in this area to learn about and provide input on proposed development in a timely manner that substantively and effectively impacts the decision making process. Many parts of this area are far from public meeting sites, but most areas have good internet access. Additionally, less than 5 percent of households in the area do not speak English well.

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Table 3-7b Central Victor Valley: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
Reduction of pollution exposure and improving air quality	Pollution Exposure While the area has significant hazardous cleanup sites, there do not appear to be significant sites in the vicinity of the unincorporated islands. There are, however, moderate levels of chromium 6 and dissolved oxygen in the groundwater. Water agencies are responsible for treating water to ensure it achieves state and federal standards prior to delivery to customers.
	Air Quality The Victor Valley area is in the Mojave Air Quality Management District. Like much of southern California, the region has air quality issues. The region does not meet federal standards for ozone. With the very high winds in the area, air-blown particles are a concern for people with asthma or allergies.
Promoting public facilities (including infrastructure and community services)	Water and Sewer Water service for the unincorporated areas is provided primarily by CSA 64, Victorville Water District, and Liberty Utilities (Apple Valley System). Many areas are a high priority for a groundwater management plan. Sewer infrastructure appears to have adequate capacity.
	Fire and Sheriff County Sheriff provides safety services though response times are unknown. County Fire also serves the area though response times are unknown. Roadway infrastructure has pedestrian and bicycle infrastructure near more urbanized areas, but lacks such infrastructure in outlying areas. A field survey has not been conducted to inventory infrastructure in specific areas.
Promoting health care infrastructure	Health Needs Within this area, health characteristics of concern include asthma (nine tracts), heart disease (seven tracts), and poverty and unemployment (four tracts). Chronic diseases include high obesity rates (36%) and diabetes (14%), (30%)—all well above county and state averages.
	Health Care Infrastructure The unincorporated areas within and surrounding Victorville are designated as medically underserved area/population as well as HPSAs for primary care and mental health care professionals. Portions of the area also are classified as a dental HPSA.
Promoting food access	Food Security and Access Food security among the low income population is moderate, affecting 9.5% of households versus 8% in the county and state. In the Victor Elementary School District, 84% of the children are eligible for free or reduced price meals, compared to 70% in the county and 58% statewide.
	Although much of the Victor Valley is defined as a food desert, the unincorporated areas covered under this report are outside those areas. According to more localized studies conducted for the Healthy High Desert Coalition, the area has a very high concentration of unhealthy food outlets.
Promoting safe and sanitary housing	Housing Within the Victorville area, there are no comprehensive housing condition surveys. However, it is generally observed that there is a significant need for rehabilitation and repair in certain places, although a specific survey of each unincorporated island has not been conducted.
Promoting physical activity	Level of Physical Activity Among youth ages 5 to 17, 24% of youth participated in at least of one hour of physical exercise regularly versus 24% in the county and 21% in the state. For adults, the percentages of adults who walked more than 150 minutes per week was lower in the area (29%) versus the state average (33%).
	Opportunities for Physical Activity Recreational outlets include trails, hiking, and outdoor sports, including opportunities in state and federal parks. The unincorporated areas in the community plan areas have few developed parks. Roadways generally have limited pedestrian and bicycling facilities. This is not uncommon for desert roads.

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3.6 NORTH HIGH DESERT

The North High Desert includes a number of smaller unincorporated communities near Barstow, including Yermo, Daggett, Newberry Springs, Hinkley, and Baker. Major roadways include I-15, SR-40, SR-58, and SR-247. While the area encompasses roughly 200 square miles, the unincorporated population hovers around 5,000 on a fraction of the land. The area is home to the USMC Logistics Base Yermo Annex, which serves as the storage, distribution, and maintenance depot for Marine Corps facilities in the Pacific region. The I-15 and I-40 runs through the area, frequented by motorists and long-haul truckers traveling from southern California to Nevada and Arizona.

3.6.1 CalEnviroScreen Assessment

Table 3-8a shows that multiple tracts exhibit composite and/or population scores that exceed the 75th percentile. Most of the other indicators scores fall in the 3rd quartile. Two of the five census tracts in the North High Desert area are defined as low income tracts. Table 3-8a lists these results, and a summary assessment follows.

Table 3-8a North High Desert: CalEnviroScreen Score

Census Tract	Low Income	Percentile and Quartile Rank			Scores in the Upper Quartile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
6071009300 Barstow	Yes	88	62	95	AQ DW	AS LB CVD POV ED UE
6071011900 Hinkley	No	70	53	74	AQ DW CS GW	AS CVD
6071010300 Daggett/ Newberry Springs/Baker	Yes	77	67	75	AQ DW CS GW HW SW	LB UE
6071011600 Yermo	No	62	52	62	AQ DW CS HW SW	CVD
6071011800 Lenwood	No	72	43	86	AQ DW	AS LB CVD

Sources: OEHHA, CalEnviroScreen, version 3, 2016.

Rankings:

Quartile 1 = Good	Quartile 2 = Moderate	Quartile 3 = Poor	Quartile 4 = Challenged
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Variables in the CES model:

Pollution Exposure
AQ = Air Quality (incl. Ozone, PM_{2.5}, diesel PM)
DW = Drinking Water
TR = Toxic Releases
TD = Traffic Density

Environmental Effects
CS = Toxic Cleanup Sites
GW: Groundwater Threats
HZ = Hazardous Waste
IW = Impaired Waters
SW = Solid Waste Sites/Facilities

Sensitive Population
AS = Asthma
LB = Low Birth Weight
CVD = Heart Disease

Socioeconomic Factors
LI = Linguistic Isolation
POV = Poverty
UE = Unemployment
HB = Housing Burden
ED = Educational Attainment

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3.6.2 Assessment by Policy Area

SB 1000 requires that all communities assess at least six environmental issues within their general plans. These include reduction of pollution exposure, improving air quality, promoting public facilities, promoting food access, promoting safe and sanitary housing, and promoting physical activity. In addition, health-care infrastructure has been added as a potential EJ consideration due to the unmet health needs countywide. The following text and Table 3-8b assess these policy areas.

Population / Demographics

Data are sparse in these areas, and the census tracts involved are exceptionally large. For population characteristics, the communities of Hinkley, Daggett, Newberry Springs, Lenwood, and Barstow SOI rank near the 75th percentile. Given the large size of the tracts, more precise data would likely show these areas face population characteristic challenges. Common concerns include asthma, heart disease, unemployment, and low birth weight. Four of the five tracts have high rates of heart disease and asthma. Several tracts are adjacent to the Barstow railyard.

Environmental Pollution Burden

The area has high levels of air pollution (e.g., ozone), and drinking water quality is vulnerable due to contaminants in the groundwater supply, including moderate to very high levels of arsenic, dissolved oxygen, vanadium, nitrate, and many other chemicals. Several large generators of hazardous waste and many cleanup sites (primarily military related) are responsible for the area's poor ranking with respect to pollution burden. While the Hinkley community relies on bottled water, CES does not score the census tract in the upper quartile for pollution burden.

Water, Sewer, Police, and Fire Service Infrastructure

Even though these communities benefit from having CSDs, Yermo, Daggett, Newberry Springs, and Baker have significant water supply and wastewater treatment concerns. LAFCO has identified Daggett and Baker as hotspots, defined as an area with one or more of the following: insufficient water supply, water quality, deficient infrastructure, and lack of financial resources. For sewer, the entire area is on septic and lacks a wastewater treatment plant. Drinking water has been known to be at risk of contamination due to nitrate, lead, and radioactive elements, among others. Baker's CSD has water monitoring violations and lacks opportunities to tie into another system. County Sheriff serves the area though response times are unknown. County Fire serves the area through four fire stations, but the response time ranges from 20 to 50 minutes. County Fire Station #53 serves Baker and has a mutual aid agreement with the Needles Fire Department.

Access to Health-Supporting Land Uses

Access to health-supporting land uses is limited for residents in this area. This area lacks any full-service grocery stores, WIC vendors, and Cal-Fresh-certified vendors closer than Barstow. Due to its limited access to grocery stores, the area is designated a food desert by the USDA. There are few parks in the unincorporated areas and no bicycle trails or roadway pedestrian amenities. Housing issues include vacant, dilapidated housing. Certain areas have code enforcement concerns with debris. The area is

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generally designated a HPSA for primary care, mental health, and dental care, as well as a medically underserved area/population.

Civil Engagement

With daytime Planning Commission and Board of Supervisors meetings and a conventional notification process, it can be difficult for residents in this area to learn about and provide input on proposed development in a timely manner that substantively and effectively impacts the decision making process. Many parts of this area are far from public meeting sites. Additionally, the Daggett, Newberry Springs, and Baker communities do not have good internet access and approximately 10 percent of households do not speak English well.

Table 3-8b North High Desert: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
Reduction of pollution exposure and improving air quality	Pollution Exposure The area's primary exposure to pollution is groundwater threats, hazardous wastes, and solid wastes. It should be noted, however, that this area extends 200 square miles to the Nevada border. Many of these pollutant sources are in unpopulated areas, far from Daggett, Newberry Springs, and Yermo.
	Air Quality This area is in the Mojave Air Quality Management District. Although the area has very high levels of ozone, there are few other appreciable air pollutants, except for a small area around the Barstow BNSF railyard, which has high levels of diesel particulate matter.
Promoting public facilities (including infrastructure and community services)	Water and Sewer LAFCO identified Daggett as a hotspot for insufficient water supply, water quality concerns, deficient infrastructure, and financial concerns. Unincorporated areas rely on individual septic systems due to the extremely low levels of population and density. Drinking water is at risk of contamination from nitrate, lead, and radioactive elements.
	Fire and Sheriff County Sheriff's Barstow Station serves this area; response times are not available. County Fire provides fire protection services from stations #52, #53, #56, and #4. Response times vary—from 20 to 50 minutes depending staffing for the paid-call firefighter station.
Promoting health care infrastructure	Health Needs Health issues include a 28% obesity rate and 10% diabetes rate—all close to state averages. Despite more modest income levels compared to other parts of the county, the health conditions of residents are better than many other areas of the county.
	Health Care Infrastructure Currently, the area is designated an HPSA for primary care, mental health, and dental services and a medically underserved area/population. There is a significant need for all the major medical services; residents must now travel to Barstow for service.
Promoting food access	Food Security The poverty rate in the area for adults is high (21%), far above the state average, and 11% of low income households are food insecure. Food insecurity affects children in the area as well. Approximately 78% of children in Barstow Unified School District were eligible for free/reduced-price meals in 2016.
	Food Access Except for small markets, these areas lack a full-service grocery store, and residents must drive to Barstow. There are no WIC vendors or Cal-Fresh-certified vendor closer than Barstow. Due to limited access to grocery stores, the entire area is designated a food desert by the USDA.
Promoting safe and sanitary housing	Housing Limited information is available about safe and sanitary housing in the area. Generally, the housing stock has a high proportion of mobile home units on septic service. Given the construction type and age of

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Table 3-8b North High Desert: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
	structures, there is a significant need to rehabilitate aging housing and demolish abandoned or dilapidated homes. Code enforcement issues may be concentrated in certain areas as well.
Promoting physical activity	<p>Level of Physical Activity State physical fitness tests show one-third of students need improvement in aerobic capacity. However, the percentage of youth (age 5 to 17) getting regular physical activity is greater (31%) than in California (21%). The level of physical activity (as measured by walking) among adults is lower than state averages.</p> <p>Opportunities for Physical Activity Recreational outlets include trails, hiking, and outdoor sports. Outside of Barstow and schools, formal park facilities are limited to Newberry Springs Park. Roadways have no pedestrian and bicycling facilities or other amenities. However, residents can walk and bicycle on public streets because traffic is very light.</p>

3.7 EAST DESERT

The East Desert area includes several community plan areas, Morongo Valley, Pioneertown, Joshua Tree, Homestead Valley, and the unincorporated sphere area of the City of Twentynine Palms. Access to the East Desert is through I-10, SR-40, SR-62, and SR-247. The population of this unincorporated area is estimated at 20,000 people. In terms of land use distribution, the area is primarily rural residential with scattered commercial and recreational (open space) uses.

3.7.1 CalEnviroScreen Assessment

Table 3-9a shows that no census tract scores in the highest quartile for the CES composite, pollution, or population characteristics score. None of the 11 census tracts in the East Desert qualify as low income tracts.

Table 3-9a East Desert: CalEnviroScreen Score

Census Tract	Low Income	Percentile and Quartile Rank			Scores in the Upper Quartile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
Morongo Valley / Pioneertown						
06071010417 (MV)	Yes	46	18	69	AQ DW SW	CVD POV UE
06071010413 (MV)	Yes	37	11	63	AQ DW	CVD UE
06071010424 (PT)	Yes	48	29	58	AQ DW CS SW	POV UE
Joshua Tree/Homestead Valley						
06071010410 (HV)	Yes	29	10	53	AQ DW SW	CVD UE
06071010423 (HV)	Yes	43	14	68	AQ DW	CVD POV UE HB
06071010419 (JT)	Yes	27	4	63	AQ DW	CVD AS UE
06071010420 (JT)	Yes	19	3	52	AQ	CVD AS LB
Twentynine Palms						

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Table 3-9a East Desert: CalEnviroScreen Score

Census Tract	Low Income	Percentile and Quartile Rank			Scores in the Upper Quartile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
06071010416 (29 P)	Yes	39	9	73	AQ CS	CVD LB POV UE
06071010422 (29 P)	No	13	2	34	AQ	CVD
06071010415 (29 P)	No	18	1	64	AQ	CVD UE
06071010409 (29 P)	Yes	47	22	66	AQ CS SW	CVD POV UE

Sources: OEHHA, CalEnviroScreen, version 3, 2016.

Rankings:

Quartile 1 = Good	Quartile 2 = Moderate	Quartile 3 = Poor	Quartile 4 = Challenged
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Variables in the CES model:

Pollution Exposure	Environmental Effects	Sensitive Population	Socioeconomic Factors
AQ = Air Quality (incl. Ozone, PM2.5, diesel PM)	CS = Toxic Cleanup Sites	AS = Asthma	LI = Linguistic Isolation
DW = Drinking Water	GW: Groundwater Threats	LB = Low Birth Weight	POV = Poverty
TR = Toxic Releases	HZ = Hazardous Waste	CVD = Heart Disease	UE = Unemployment
TD = Traffic Density	IW = Impaired Waters		HB = Housing Burden
	SW = Solid Waste Sites/Facilities		ED = Educational Attainment

3.7.2 Assessment by Policy Area

SB 1000 requires that all communities assess at least six environmental issues within their general plans. These include reduction of pollution exposure, improving air quality, promoting public facilities, promoting food access, promoting safe and sanitary housing, and promoting physical activity. In addition, health care infrastructure has been added as a potential EJ consideration due to the unmet health needs countywide. The following text and Table 3-9b assess these policy areas.

Population / Demographics

Five census tracts score in the third quartile for population characteristic burdens. However, there appears to be at least two specific concerns. Six of eight tracts have very high rates of emergency room visits for cardiovascular disease (90th percentile and above). This may be due to inadequate prevention programs or lack of health care professionals. Upper quartile scores were also recorded for unemployment (six tracts) and poverty (three tracts). However, health needs are largely indistinguishable from the state based on statewide surveys.

Environmental Pollution Burden

While overall pollution rankings are low, the East Desert has several high priority pollution concerns. Ozone levels are among the worst in California. Drinking water quality exceeds the 75th percentile, with half the tracts above the 90th percentile. While water supplies meet state standards in most areas, the County supplies bottled water to other areas affected by excessive uranium (e.g., Pioneertown). There

3. Environmental Justice Communities

are groundwater contamination concerns. The other common issue is cleanup sites, which are largely due to military uses and require evaluation.

Water, Sewer, Police, and Fire Service Infrastructure

Morongo Valley and Pioneertown (CSA 70) and Golden State Morongo Del Sur have water service challenges. Bottled water is delivered to customers in Morongo Valley and Pioneertown due to uranium contamination. These areas also lack interties with other water providers to ensure continued water supply. Sewer deficiencies for this area are unknown. County Sheriff and County Fire Department provide public safety services. Fire service response times average 4 to 6 minutes in Joshua Tree, 9 minutes in Homestead Valley, and 16 to 18 minutes in Morongo Valley. The latter two times do not meet generally desired industry standards. Sheriff response times and standards are not available for this area.

Access to Health-Supporting Land Uses

Access to health-supporting land uses is generally limited within the East Desert area. Outside Yucca Valley and Twentynine Palms, most census tracts lack a full-service grocer and healthy food outlets, and are considered food deserts by the USDA. Much of the area is considered an HPSA for primary care, mental health, and dental care, as well as a medically underserved area/population. Unincorporated areas have limited parks, if any, and no bicycle trails or roadway amenities. Other issues include housing rehabilitation and code enforcement needs.

Civil Engagement

With daytime Planning Commission and Board of Supervisors meetings and a conventional notification process, it can be difficult for residents in this area to learn about and provide input on proposed development in a timely manner that substantively and effectively impacts the decision making process. Many parts of this area are far from public meeting sites, and some areas in the East Desert communities do not have good internet access. Additionally, less than 4 percent of households in the area do not speak English well.

Table 3-9b East Desert: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
Reduction of pollution exposure and improving air quality	Pollution Exposure The greatest concern is drinking water; tests have shown elevated levels of arsenic, chromium-6, dissolved oxygen, nitrate, lead, uranium, and other contaminants in certain scattered areas. Maximum contaminant violations have occurred in Joshua Tree, Homestead Valley, Morongo Valley, and Pioneertown.
	Air Quality This area is in the South Coast Air Quality Management District. While the area has very high levels of ozone, other air pollutant concentrations are low, except for isolated areas. Due to the lack of heavy industry and trucking, air quality is generally very good (except for ozone) in the East Desert communities.
Promoting public facilities (including infrastructure and community services)	Water and Sewer Water challenges are significant for these areas. The water supply for portions of Morongo Valley and all of Pioneertown are contaminated with uranium, arsenic, and/or fluoride. Bottled water is supplied to residents in several areas, and several areas also have aging infrastructure, lack of interties with other water providers, etc. Sewer conditions are unknown, but the area is on septic and vulnerable to potential contaminants. The Town of Yucca Valley is in the process of developing a sewer system.
	Fire and Sheriff

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Table 3-9b East Desert: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
	Within the East Desert area, the County Sheriff and County Fire Department provide services. Fire service times average 4 to 6 minutes in Joshua Tree, 9 minutes in Homestead Valley, and 16 to 18 minutes in Morongo Valley. The latter two response times exceed generally desired industry standards. Sheriff response times and standards are not available for this area.
Promoting health care Infrastructure	<p>Health Needs While there are some variations among different communities, the overall health needs for the East Desert area generally mirror the county and state. There are few differences in rates of asthma, diabetes, obesity, or other chronic diseases according to statewide surveys. The exception was a very high rate of emergency room visits for cardiovascular diseases and the need for mental health services.</p> <p>Health Care Infrastructure The area is served by the Hi-Desert Medical Center, 3 federally qualified health centers, and 7 rural clinics. Nevertheless, the area is a HPSA for primary care and mental health. Communities south of SR-62 are a dental HPSA. In addition, most of the area is designated a medically underserved area/population.</p>
Promoting food access	<p>Food Security The poverty rate in the East Desert area is high. Most of the census tracts have more than 70% of residents with incomes that are below twice the federal poverty rate, although only three tracts exceed the 75th percentile. Unemployment rates are also high. The percentage of low income adults who are food insecure is generally low at 7%, which is lower than state and county averages.</p> <p>Food Access Outside the incorporated cities of Yucca Valley and Twentynine Palms, there are no full-service grocers, and the clear majority of census tracts do not have healthy food outlets. Outside the cities, the majority of the area is considered a food desert by the USDA. However, the area does have access to WIC vendors and Cal-Fresh–certified vendors in several clusters throughout the area.</p>
Promoting safe and sanitary housing	<p>Housing Limited information is available about safe and sanitary housing in the area. No code enforcement data are available. However, residents reported issues with the need for demolition and/or rehabilitation of homes, illegal dumping, junk and trash, and vacant homes in certain locations.</p>
Promoting physical activity	<p>Level of Physical Activity Among youth ages 5 to 17, 38% participated in at least of one hour of physical exercise regularly versus 24% in the county and 21% in the state. The percentage of adults who walked more than 150 minutes per week was lower in the area versus the county and state averages.</p> <p>Opportunities for Physical Activity Recreational outlets include trails, hiking, and outdoor sports, including opportunities in state and federal parks. The unincorporated areas within the community plan areas have few developed parks. Roadways generally have limited pedestrian and bicycling facilities. This is not uncommon for desert roads.</p>

3.8 MOUNTAIN COMMUNITIES

The San Bernardino Mountain communities include Crest Forest (CF), Lake Arrowhead (LA), Hilltop (HT), and Bear Valley (BV)—which encompass several smaller communities, such as Running Springs, Crestline, Green Valley, Twin Peaks, and Sugarloaf. Access to these communities is via SR-138, SR-18, and Highway 2.

3.8.1 CalEnviroScreen Assessment

Overall, most communities score well, with many scores in the good or moderate quartiles. One tract in the Crest Forest area has composite and population scores in the upper quartile, and two other tracts

3. Environmental Justice Communities

(Crest Forest and Bear Valley areas) have population scores in the upper quartile. Six of the 13 tracts are low income tracts. Table 3-10a lists these results, and a summary assessment of the results follows.

Table 3-10a Mountain Communities: CalEnviroScreen Score

Census Tract	Low Income	Percentile and Quartile Rank			Scores in the Upper Quartile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
6071011403 (BV)	Yes	22	5	49	AQ	CVD HB
6071011404 (BV)	No	27	2	72	AQ	LB CVD UE
6071011401 (BV)	Yes	56	24	78	AQ IW SW	LB CVD HB
6071011300 (BV)	Yes	58	32	74	AQ IW SW	CVD UE HB
6071011102 (HT)	Yes	20	34	18	AQ DW SW	—
6071011101 (HT)	No	45	39	46	AQ DW	LB
6071010902 (LA)	No	30	26	36	AQ	LB
6071011002 (LA)	No	57	49	56	AQ DW SW	LB
6071010901 (LA)	No	32	14	50	AQ	—
6071011001 (LA)	Yes	51	33	59	AQ	HB
6071010803 (CF)	No	60	34	75	AQ	AS CVD UE
6071010804 (CF)	Yes	57	32	70	AQ	AS CVD
6071010802 (CF)	No	78	60	81	AQ DW SW	AS CVD UE

Sources: OEHHA, CalEnviroScreen, version 3, 2016.

Rankings:

Quartile 1 = Good	Quartile 2 = Moderate	Quartile 3 = Poor	Quartile 4 = Challenged
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Variables in the CES model:

Pollution Exposure
AQ = Air Quality (incl. Ozone, PM_{2.5}, diesel PM)
DW = Drinking Water
TR = Toxic Releases
TD = Traffic Density

Environmental Effects
CS = Toxic Cleanup Sites
GW: Groundwater Threats
HZ = Hazardous Waste
IW = Impaired Waters
SW = Solid Waste Sites/Facilities

Sensitive Population
AS = Asthma
LB = Low Birth Weight
CVD = Heart Disease

Socioeconomic Factors
LI = Linguistic Isolation
POV = Poverty
UE = Unemployment
HB = Housing Burden
ED = Educational Attainment

3.8.2 Assessment by Policy Area

SB 1000 requires that all communities assess at least six environmental issues in their general plans. These include reduction of pollution exposure, improving air quality, promoting public facilities, promoting food access, promoting safe and sanitary housing, and promoting physical activity. In addition, health care infrastructure has been added as a potential EJ consideration due to the unmet health needs countywide. The following text and Table 3-10b assess these policy areas.

Population / Demographics

For population characteristics, three census tracts rank in the upper quartile, and six census tracts score in the third quartile. Within the area, the top population factors that exceed the 75th percentile are low

3. Environmental Justice Communities

birth weight (five tracts), emergency room visits for cardiovascular disease (seven tracts), and unemployment (four tracts). Most other indicators seem to be equivalent to state and county surveys. However, community plan surveys of residents noted that drug and alcohol use and residential group homes were cited as issues affecting the mountain communities.

Environmental Pollution Burden

According to CalEnviroScreen, no census tracts reach the upper quartile in pollution burden. Pollution rankings are generally very low compared to other communities in San Bernardino County and statewide, but each community is subject to some environmental pollution. Air quality, specifically ozone, is a common concern. The quality of drinking water is a concern in the Hilltop and Crest Forest area. There are also a few solid waste transfer stations and smaller landfills in the mountain communities, although these are subject to strict permitting and operating requirements by the County.

Water, Sewer, Police, and Fire Service Infrastructure

A recent LAFCO water service review did not indicate any hotspots for water services in the mountain communities. However, the County recently assumed jurisdiction over a failing Crest Forest water agency. Overall, there does not appear to be sewer or wastewater treatment issues. However, portions of the Mountain area are on a prohibition for new onsite wastewater treatment systems. For public safety services, the County Sheriff, County Fire, and Big Bear fire departments provide services. Fire service response times average 6 to 13 minutes in Crest Forest and Hilltop. Bear Valley communities have a fire response time within 7 minutes. Sheriff response times are not known.

Access to Health- Supporting Land Uses

Access to health-supporting land uses is generally limited within the Mountain communities. While the core of these communities have ample opportunities for healthy food, more remote areas are considered a food desert. All the communities are designated an HPSA for primary care and mental health. However, communities on the east (Bear Valley, Running Springs, Hilltop) also have a dental HPSA designation, while Lake Arrowhead and Crest Forest do not. The Bear Valley area has seven developed parks and two natural parks. Although the remainder of the Mountain area has fewer parks and limited on-street bicycle trails, there are ample opportunities for active recreation as the communities reside in the San Bernardino National Forest.

Civil Engagement

With County Government Centers located outside of the Mountain region, daytime Planning Commission and Board of Supervisors meetings, and a conventional notification process, it can be difficult for residents in this area to provide input on proposed development in a timely manner that substantively and effectively impacts the decision making process. Many parts of this area are far from public meeting sites, and most areas have good internet access. Additionally, 5 percent or less of households do not speak English well in the Mountain communities.

3. Environmental Justice Communities

Table 3-10b Mountain Communities: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
Reduction of pollution exposure and improving air quality	Pollution Exposure While the area is affected by solid waste facilities and some impaired waterways, the greatest concern is drinking water. Drinking water tests have shown elevated levels of arsenic, nitrate, lead, uranium, and other contaminants in certain areas. Maximum contaminant level violations may have also occurred.
	Air Quality This area is in the South Coast Air Quality Management District. Although the area has very high levels of ozone, air pollutant concentrations are low, except for a small area affected by PM _{2.5} around Crestline. Due to the lack of heavy industry and trucking, air quality is good in the mountain communities.
Promoting public facilities (including infrastructure and community services)	Water and Sewer The Mountain area has 8 public and 16 private water systems. According to LAFCO, there are no areas with significant water issues. The location of greatest concern is Cedar Glen. Certain areas in Bear Valley are subject to a moratorium of onsite wastewater treatment systems to avoid groundwater contamination.
	Fire and Sheriff In the Bear Valley, all communities are within at least a 7-minute response time of the nearest fire station, which include Big Bear Fire Department Stations 96, 282, 283, and 292. In the Crest Forest area, San Bernardino County Fire response times vary between 6 and 13 minutes. Hilltop communities have a similar fire response time, less than 15 minutes. The entire area is served by the County Sheriff.
Promoting health care Infrastructure	Health Needs While there are some variations among different communities, the overall health needs for the Mountain areas generally mirror the county and state. There are few differences in rates of asthma, diabetes, obesity, mental health problems, or other chronic diseases, according to statewide surveys. Obesity rates for the mountain communities (33%) are lower than the County (35%), but higher than in California (26%).
	Health Care Infrastructure The area is served by two hospitals—Bear Valley Community Hospital and Mountain Community Hospital. All the communities are designated HPSAs for primary care and mental health. However, communities in the east also have a dental HPSA designation, and Lake Arrowhead and Crest Forest communities do not.
Promoting food access	Food Security The poverty rate in the area for adults is like the county and California as a whole, but only 5% of low income households are food insecure, which is half the state and county average. Percentages of children eligible for free and reduced-price meals is 50% in Rim of the World and 66% in Bear Valley districts.
	Food Access The Mountain communities have three distinct areas. In Bear Valley, areas south of the lake are food deserts. Hilltop communities are not considered food deserts. Lake Arrowhead is not a food desert, but parts of the area south to Rim of the World Highway and parts of Crestline are considered food deserts.
Promoting safe and sanitary housing	Housing Limited information is available about safe and sanitary housing in the area. However, residents reported issues with junk and trash, excessive outside storage, inoperative vehicles, group homes, construction without permits, and vacant or seasonal housing.
Promoting physical activity	Level of Physical Activity Limited data is available. Based on California Health Interview Survey, youth appear to get more regular exercise than youth in the county and state, but the reverse is true for adults. The size of this area and its unpopulated nature make it difficult to create accurate comparisons.
	Opportunities for Physical Activity Recreational outlets include trails, hiking, and outdoor sports. In addition to access to the surrounding National Forest, Bear Valley, Crest Forest, Lake Arrowhead, and Hilltop have public parks. Outside of the downtown areas, roadways generally have limited pedestrian and bicycling facilities. This is not uncommon for areas with mountain roads and periodic inclement weather.

3. Environmental Justice Communities

3.9 BLOOMINGTON AND MUSCOY

The Valley region of San Bernardino County is the most urbanized part of the county, and home to the majority of residents, commercial businesses, and industrial operations. Most of the Valley communities are incorporated, but there are several distinct communities that are unincorporated and remain under County jurisdiction. The most distinct communities are Muscoy and Bloomington, but there are also pockets of unincorporated areas that are surrounded by established cities.

3.9.1 CalEnviroScreen Assessment

As shown in Table 3-11a, the majority of census tracts in Muscoy and Bloomington have high composite and pollution burden scores. Whether measured by a composite, pollution, or population score, nearly all tracts measure in the upper quartile. Twelve of the 13 census tracts also qualify as low income tracts.

Table 3-11a Bloomington and Muscoy: CalEnviroScreen Score

Census Tract	Low Income	Percentile and Quartile Rank			Scores in the Upper Quartile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
Bloomington-Colton						
6071002601 Bloomington	Yes	71	99	36	AQ TR TD CS HZ SW	
6071003605 Bloomington	Yes	68	51	72	AQ DW	UE
6071003606 Bloomington	Yes	83	81	74	AQ DW TD HZ	ED POV UE HB
6071004001 Bloomington	Yes	86	91	68	AQ TD HZ	ED UE
6071004003 Bloomington	Yes	98	97	86	AQ DW GW HZ SW	LB ED POV UE LI
6071003403 Bloomington	Yes	72	57	74	AQ	LB ED POV UE
6071004004 (COL)	Yes	98	100	78	AQ DW TD CS GW HZ SW	LB ED POV UE
6071003302 Bloomington	Yes	85	88	70	AQ DW TR TD	LB ED LI POV UE
6071006601 (COL)	Yes	95	80	97	AQ DW TD	AS LB CVD ED LI POV UE
Muscoy-San Bernardino						
6071004503 San Bernardino SOI	No	53	82	32	AQ TD DW	AS CVD
6071004104 Muscov	Yes	98	91	96	AQ DW CS	AS CVD ED POV UE
6071004101 Muscov	Yes	93	85	89	AQ DW CS TR	

3. Environmental Justice Communities

Table 3-11a **Bloomington and Muscoy: CalEnviroScreen Score**

Census Tract	Low Income	Percentile and Quartile Rank			Scores in the Upper Quartile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
6071004103 Muscoy	Yes	95	84	95	AQ DW CS	

Sources: OEHHA, CalEnviroScreen, version 3, 2016.

Rankings:

Quartile 1 = Good	Quartile 2 = Moderate	Quartile 3 = Poor	Quartile 4 = Challenged
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Variables in the CES model:

Pollution Exposure	Environmental Effects	Sensitive Population	Socioeconomic Factors
AQ = Air Quality (incl. Ozone, PM2.5, diesel PM)	CS = Toxic Cleanup Sites	AS = Asthma	LI = Linguistic Isolation
DW = Drinking Water	GW: Groundwater Threats	LB = Low Birth Weight	POV = Poverty
TR = Toxic Releases	HZ = Hazardous Waste	CVD = Heart Disease	UE = Unemployment
TD = Traffic Density	IW = Impaired Waters		HB = Housing Burden
	SW = Solid Waste Sites/Facilities		ED = Educational Attainment

3.9.2 Assessment by Geographic Area

Bloomington Community

Bloomington encompasses 3,200 acres along both sides of I-10 and is bounded by Fontana, Rialto, and Riverside County. Today, Bloomington has a mix of rural estate lots, conventional single-family subdivisions, several rental projects, and several mobile-home parks. Commercial and industrial uses line both sides of I-10. Bloomington is estimated to have about 25,000 residents, with a generally higher average household size of 4.5 persons per household and a median age of 30 years.

Population / Demographics

Seven census tracts rank in the third or fourth quartile for population characteristics. Common issues include low educational attainment, poverty, unemployment, and low birth weight. According to the CHIS, Bloomington (zip code area 92316) has high rates of adult diabetes (15 percent), fair or poor health among working-age adults (28 percent), adult obesity (43 percent), and other chronic health conditions. Asthma rates are similar to county and state averages. Finally, Bloomington is considered a low income area, with all census tracts designated as low income.

Environmental Pollution Burden

Bloomington has some of the highest scores for pollution burden in California—six of its census tracts exceed the 90th percentile for pollution sources and exposure. Air quality (ozone and particulate matter), drinking water quality, toxic releases, traffic density, groundwater threats, cleanup sites, hazardous waste, and other pollutants are all significant concerns. This is due to Bloomington's location near I-10, industrial land uses, and nearby industrial operations. The Colton railyard is also a significant source of diesel particulate matter; its pollutants are regulated by the California Air Resources Board.

3. Environmental Justice Communities

Water, Sewer, Police, and Fire Service Infrastructure

Bloomington is provided water primarily by the West Valley Water District, with portions served by Fontana Water Company and Marygold Mutual Water Company. The groundwater basin is classified as a high priority basin. Most homes and businesses are served by septic systems. A more formal technical study of sewer system capacity is underway to determine the cost for associated wastewater treatment services for proposed growth. County Fire State #76 in Bloomington provides fire services; response times are assumed to be within industry norms. County Sheriff provides public safety services; response times are not available.

Health-Supporting Land Uses

Access to health-supporting land uses is mixed. While not defined as a HPSA, all areas south of I-10 are designated a medically underserved population/area. The area south of I-10 is designated by the USDA as a food desert. Due to the intermix of industrial and residential uses, high levels of pollution raise public health concerns. Bloomington has two public parks, with Ayala Park targeted for relocation to an area near compatible land uses.

Muscoy Community

The Muscoy community encompasses a 1,938-acre area of predominantly single-family residential uses (81 percent or 1,562 acres). Other uses include floodways; special development areas; office, service, and highway commercial; and rural, neighborhood, and general commercial. Muscoy is currently estimated to have approximately 11,200 residents, a higher average household size (nearly five persons per household), and a younger population (median age of 25 years). An additional area (Devore) just outside of the San Bernardino SOI was added to this category but are not included in the table above.

Population / Demographics

With respect to population characteristics, rankings for all census tracts reach the upper quartile in one or more scoring category. This is due to high levels of asthma, low birth weights, high rates of heart disease, limited educational attainment, high poverty, and high levels of unemployment. Muscoy is also considered a low income community. According to the California Health Interview Survey (CHIS), Muscoy has the same prevalence of health issues as California, except for very high rates of obesity, cardiovascular disease, and asthma.

Environmental Pollution Burden

Muscoy has some of the highest pollution burdens in California; every census tract far exceeds the 75th percentile, with many in the 90th percentile. Air quality (ozone and particulate matter), drinking water quality, and cleanup sites are all significant concerns. Muscoy is surrounded on all its borders by World War II-era hazardous waste sites and other cleanup sites that need evaluation. Muscoy is also near several superfund sites in Rialto and San Bernardino.

Water, Sewer, Police, and Fire Service Infrastructure.

Muscoy is not listed as a water service hotspot community by LAFCO; however, the state has identified the underlying water basin as a high priority for needing a groundwater management plan by 2020. Muscoy is currently on septic systems and requires leach fields for wastewater treatment purposes. Fire

3. Environmental Justice Communities

Station #75 serves the Muscoy community; response times are assumed to be within industry standards given the proximity to these areas. County Sheriff provides safety services; response times are unknown.

Health-Supporting Land Uses.

Access to health-supporting land uses is generally limited in Muscoy. It is not considered an HPSA or medically served area/population. Muscoy is also considered a food desert due to the lack of full-service grocers in the community. Within Muscoy, residents have access to only one formal park beyond school facilities. Housing conditions and code enforcement issues have been noted as a concern for the community. The community is known for its Baker Learning Center, an exceptional model facility for community services in the County.

Civil Engagement

Despite the area's proximity to the primary County Government Center, daytime Planning Commission and Board of Supervisors meetings and a conventional notification process can make it difficult for residents in such areas to learn about and provide input on proposed development in a timely manner that substantively and effectively impacts the decision making process. Additionally, approximately 13 to 23 percent of households in Bloomington, 15 percent of households in the Colton SOI, and 5 to 13 percent of households in selected portions of Muscoy do not speak English well.

Table 3-11b Bloomington and Muscoy: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
Reduction of pollution exposure and improving air quality	Pollution Exposure Nearly all census tracts (11 of 13) has high levels of air pollution and drinking water contamination concerns. Other pollution exposure issues include traffic density, toxic releases from industry, hazardous waste and cleanup sites from military and industrial land uses.
	Air Quality This area is in the South Coast Air Quality Management District and as a nonattainment status for ozone and particulate matter. Pollutant concentrations are high for particulate matter, including diesel particulate matter due to trucking routes in and around both communities.
Promoting public facilities (including infrastructure and community services)	Water and Sewer Water and sewer challenges are significant for these areas. For Muscoy, water service is provided by the Muscoy Mutual Water Company, and septic tanks and leach fields are used for its wastewater needs. For Bloomington, several water districts provide potable water for the community. For sewer, Bloomington was also developed with reliance on septic tanks and leachfield systems.
	Fire and Sheriff San Bernardino County Fire Station #75 serves Muscoy and response times are 4 to 6 minutes, which is generally with NFPA standards. Bloomington Fire Station #76 serves the community and response times are unknown but are assumed to be also within NFPA standards due to the size of the community. Both areas are served by County Sheriff and response times were not available.
Promoting health care Infrastructure	Health Needs Within this area, Muscoy has elevated levels of asthma and high levels of obesity (35%) versus statewide average of 26%, and emergency room admits for cardiovascular disease. For Bloomington, key health needs include diabetes, a 43% obesity rate, and high rate of emergency room admits for heart disease.
	Health Care Infrastructure

3. Environmental Justice Communities

Table 3-11b **Bloomington and Muscoy: EJ Assessment by Policy Area**

Policy Area	Environmental Conditions
	Access to health-supporting land uses is mixed. While Bloomington is not defined as a HPSA, all areas south of I-10 are designated a medically underserved population/area. Muscoy is also not a HPSA, although utilization of existing clinics in the area is mixed.
Promoting food access	Food Security The poverty rate in both Bloomington and Muscoy is high. Low income household food insecurity is high in Bloomington (13%) and Muscoy (10%) versus state averages (8%). County has designated both areas as an HPLA–high poverty low access food desert.
	Food Access Food access is generally poor. In Bloomington, the area south of I-10 is designated by the USDA as a food desert, but other areas north of the I-10 have adequate access. Muscoy is also considered a food desert. There is a high preponderance of fast food outlets, liquor markets, and convenience stores.
Promoting safe and sanitary housing	Housing Limited information is available about safe and sanitary housing in the area. No code enforcement data are available. However, residents reported issues with the need for demolition and/or rehabilitation of homes, illegal dumping, junk and trash, and vacant homes in certain locations.
Promoting physical activity	Level of Physical Activity Among youth ages 5 to 17, 20% in Bloomington and 24% in Muscoy participated in at least of one hour of physical exercise regularly versus 24% in the county and 21% in the state. The percentage of adults who walked more than 150 minutes per week was lower in the area versus the county and state averages.
	Opportunities for Physical Activity Recreational outlets include bicycling, walking, and active recreation at parks. Roadways generally have limited pedestrian and bicycling facilities. Safety concerns (traffic and trucking) along streets makes active transportation uses generally not optimal.

3.10 VALLEY UNINCORPORATED ISLANDS

In addition to community plan areas in the desert and mountain regions, San Bernardino County has several pockets of unincorporated areas surrounded by incorporated cities: 1) Chino-Montclair; 2) Fontana; 3) San Bernardino and Colton; 4) Mentone; and 5) Loma Linda.

3.10.1 CalEnviroScreen Assessment

Environmental justice concerns are summarized in Table 3-12a. Except for the Mentone area, more than half of the census tracts in Chino-Montclair, Western Fontana, and San Bernardino have high composite scores, and most of the census tracts are low income tracts

Table 3-12a **Valley Unincorporated Islands: CalEnviroScreen Score**

Census Tract	Low Income	Percentile and Quartile Rank			Scores in the Upper Quartile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
Chino SOI-Montclair SOI						
6071000303 (MON)	Yes	94	97	74	AQ DW TR CS HZ SW	ED LI POV
6071000304	No	74	85	56	AQ DW TR SW	ED LI

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Table 3-12a Valley Unincorporated Islands: CalEnviroScreen Score

Census Tract	Low Income	Percentile and Quartile Rank			Scores in the Upper Quartile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
(MON)						
6071000403 (CHI)	No	78	95	52	AQ DW TR HZ SW	LB CVD
6071000404 (CHI)	No	71	77	58	AQ DW TR	LB CVD
6071000401 (CHI)	No	72	86	52	AQ DW TR TD	CVD
Western Fontana SOI						
6071002402	Yes	92	77	93	AQ TR SW	AS CVD ED POV UE HB LI
6071002204	Yes	98	98	87	AQ TR CS HZ SW	
6071002501	No	99	99	90	AQ TR TD HZ SW	AS CVD ED LB
6071002401	Yes	94	91	85	AQ TR CS HZ SW	CVD ED LI
San Bernardino SOI						
6071002706	No	72	91	47	AQ DW CS	
6071006302	Yes	87	61	94	AQ DW	AS; CVD; ED; POV; UE; HB
6071004507	Yes	70	39	87	AQ	
6071006500	Yes	95	81	96	AQ DW CS	
6071007403	No	60	40	69	AQ	AS; CVD; UE
6071006100	Yes	76	43	93	AQ DW	AS; CVD; LB; POV; UE
6071007800	Yes	74	99	38	AQ TD DW CS HW SW	
Mentone-Loma Linda SOI-Colton SOI						
6071008601 (Mentone)	No	59	48	60	AQ PEST	AS CVD
6071008602 (Mentone)	No	54	52	49	AQ DW	AS CVD
6071007302 (LL)	No	70	90	47	AQ DW SW	
6071007105 (LL)	No	59	51	57	AQ DW	AS CVD UE

Sources: OEHHA, CalEnviroScreen, version 3, 2016.

Rankings:

Quartile 1 = Good	Quartile 2 = Moderate	Quartile 3 = Poor	Quartile 4 = Challenged
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Variables in the CES model:

Pollution Exposure
AQ = Air Quality
PEST = Pesticides
DW = Drinking Water
TR = Toxic Releases
TD = Traffic Density

Environmental Effects
CS = Toxic Cleanup Sites
GW: Groundwater Threats
HZ = Hazardous Waste
IW = Impaired Waters
SW = Solid Waste Sites/Facilities

Sensitive Population
AS = Asthma
LB = Low Birth Weight
CVD = Heart Disease

Socioeconomic Factors
LI = Linguistic Isolation
POV = Poverty
UE = Unemployment
HB = Housing Burden
ED = Educational Attainment

3. Environmental Justice Communities

3.10.2 Assessment by Geographic Area

Chino Montclair

This area comprises five census tracts in northern Chino east of the SR-71 that extend eastward through portions of west Montclair. Two tracts rank in the upper quartile for their composite score. All the population characteristics scores in this area rank in the third quartile. Population characteristics that contribute to its CES ranking include low educational attainment, poverty, low birth weight, and heart disease. Of greater note, all five census tracts rank in the upper quartile for environmental pollution. Key issues include poor air quality, toxic release from industrial land uses, hazardous waste and solid waste sites, and cleanup sites. This area is also lower income.

Western Fontana

The western Fontana area covers five square miles and is home to 7,500 residents that live near the Aut Club Speedway and other industrial uses. Based on its CES scores, this area is one of the most challenged areas in California; all its census tracts scores reach the upper quartile for composite score, pollution burden, and population characteristics. Many tracts rank in the 90th percentile and above. Common pollution factors include air quality (including particulate matter), toxic releases from industry, and hazardous and solid waste sites. Health concerns include high rates of asthma and heart disease, low educational attainment, and poverty and unemployment.

San Bernardino

The cities of San Bernardino and Highland have a scattered mix of census tracts that are unincorporated islands and fall within the jurisdiction of San Bernardino County. As noted in Table 3-12, the pollution burden in these tracts generally ranges from the second to fourth quartiles. However, the more critical issue is population characteristics, in which four of six tracts score in the upper quartile. Common concerns include asthma, heart disease, low levels of educational attainment, poverty, and unemployment. These issues, coupled with pollution scores, result in high overall composite scores. With respect to pollution burden, the key issues are air quality, drinking water quality, and cleanup sites.

Mentone-Loma Linda-Colton

Mentone is within the Redlands SOI. It is a rural-suburban community with a mix of agricultural uses, limited commercial, and rural-suburban housing. None of the tracts are low income tracts. One of the census tracts scores in the upper quartile for pollution burden. Key population issues include asthma and heart disease hospitalizations. Its location near agricultural uses and I-10 could contribute to local health issues. The Loma Linda area is similar in nature, and the one Colton tract has a very high pollution burden.

Civil Engagement

Despite the area's proximity to the primary County Government Center, daytime Planning Commission and Board of Supervisors meetings and a conventional notification process can make it difficult for residents in such areas to learn about and provide input on proposed development in a timely manner that substantively and effectively impacts the decision making process. Additionally, approximately 17

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percent of households in the Montclair SOI, 14 to 17 percent of households in the western Fontana SOI, and 7 to 20 percent of households in the City of San Bernardino SOI do not speak English well.

Table 3-12b Valley Unincorporated Islands: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
Reduction of pollution exposure and improving air quality	Pollution Exposure Pollution exposure is significant for valley unincorporated islands, particularly those located within or near to industrial land uses or transportation infrastructure. Locations and issues where the CES scores exceeds the 75 th percentile are as follows: Chino-Montclair: drinking water, cleanup sites, and hazardous and solid waste facilities Western Fontana: cleanup sites, and hazardous and solid waste facilities San Bernardino: drinking water, cleanup sites, and hazardous and solid waste facilities Mentone-Loma Linda-Colton: primarily drinking water
	Air Quality The San Bernardino Valley is in the South Coast Air Quality Management District and is designated as a nonattainment status for ozone and particulate matter. Pollutant concentrations are high for particulate matter, including diesel particulate matter due to trucking routes in these communities. Of concern, west Fontana and Chino-Montclair areas are near industrial centers. Toxic releases from industrial uses exceed the 75 th percentile in every census tract within these two communities. None of the other census tracts in unincorporated San Bernardino or the Mentone area score high in toxic releases from industries.
Promoting public facilities (including infrastructure and community services)	Water and Sewer None of the four valley unincorporated islands were noted by the San Bernardino LAFCO as a hotspot for providing water. Wastewater service capacity is being studies by LAFCO. Based on technical reports for the countywide plan, infrastructure in all the unincorporated islands is able to provide water and sanitation services to support projected residential and nonresidential growth over the foreseeable future. However, it should be noted that drinking water contamination levels exceeded the 75 th percentile in the Chino-Montclair, San Bernardino, and Mentone-Loma Linda-Colton unincorporated islands.
	Fire and Sheriff Chino-Montclair: Montclair FD and Chino Valley FD provides service; response times are unknown Western Fontana: County Station #72 serves west Fontana; response times are unknown San Bernardino: County Fire provides services to these areas; response times are unknown Mentone-Loma Linda-Colton: County Fire provides services to these areas; response times are unknown County Sheriff provides law enforcement services for all areas; response times are unknown
Promoting health care Infrastructure	Health Needs Chino-Montclair: high levels of diabetes (13%), obesity (37%), and emergency room visits for heart disease Western Fontana: high levels of diabetes (13%), obesity (41%), and emergency room visits for heart disease San Bernardino: high levels of diabetes (12%), obesity (40%), and emergency room visits for heart disease Mentone-Loma Linda-Colton: similar to state and county averages
	Health Infrastructure While the desert regions are known for a lack of health care infrastructure, most areas in the valley are fairly well-served with health care professionals, with a few exceptions by area. Chino-Montclair: not designated as a HPSA Western Fontana: not designated as a HPSA San Bernardino: designated as a HPSA for medically underserved area /population only Mentone-Loma Linda-Colton: Only Colton is designated a HPSA for medically underserved area/population
Promoting food access	Food Security A significant portion of children in these areas are eligible for free or reduced meals at local schools. With respect to household food insecurity, rates vary by community.

3. Environmental Justice Communities

Table 3-12b Valley Unincorporated Islands: EJ Assessment by Policy Area

Policy Area	Environmental Conditions
	<p>Chino-Montclair: food insecurity similar to state (8%) and county averages (9%) Western Fontan: a-high levels of food insecurity among low income households (15%) San Bernardino: moderate levels of food insecurity among low income households (11%) Mentone-Loma Linda-Colton: similar to state (8%) and county averages</p> <p>Food Access Food access according to the USDA is generally good, with a few exceptions. Chino-Montclair: small portion along Mission Boulevard is a food desert Western Fontana: southeast quadrant is a food desert San Bernardino: selected unincorporated census tracts are food deserts Mentone-Loma Linda-Colton: Only southwest Colton SOI is a food desert</p>
Promoting safe and sanitary housing	<p>Housing There is no source of data documenting the condition of safe and sanitary housing in unincorporated islands. Most cities and the County do not track the data nor is this information included in consolidated plans or other mandated reports for individual areas. However, visual inspection indicates a need for housing rehabilitation, demolition of dilapidated structures, code enforcement concerns, property maintenance, and debris and vehicle clearance. While not all unincorporated islands display these issues, many of the lower income census tract areas have one or more of the above conditions affecting neighborhood quality.</p>
Promoting physical activity	<p>Level of Physical Activity Levels of physical activity are similar for most valley communities as follows. Chino-Montclair: 22% of youth exercised regularly and 30% of adults walked at least 150 minutes per week Western Fontana: 21% of youth exercised regularly and 31% of adults walked at least 150 minutes per week San Bernardino: 24% of youth exercised regularly and 30% of adults walked at least 150 minutes per week Mentone-Loma Linda-Colton: 29% of youth exercised regularly and 29% of adults walked >150 minutes/week</p> <p>Opportunities for Physical Activity As the Valley is urbanized, there are ample opportunities for bicycling, walking, and active recreation at parks. Roadways generally have limited pedestrian and bicycling facilities. However, safety concerns (traffic and trucking) along streets makes active transportation uses generally not optimal. Certain neighborhoods may also have elevated levels of crime and vagrancy that may discourage use of physical activity opportunities.</p>

3.11 FOOTHILL-MOUNTAIN COMMUNITIES

The Valley-Mountain interface area includes a small number of communities that straddle the San Bernardino foothills and mountain areas. Extending from the edges of the San Bernardino National Forest, these include the Community Plan areas of Oak Glen (OG), San Antonio Heights (SAH), Mt. Baldy (MtB), Angelus Oaks (AO), Lytle Creek (LC), and Wrightwood (WW).

3.11.1 CalEnviroScreen Assessment

Overall, none of the areas exhibit composite, pollution, or population scores in the upper quartile. Table 3-13 summarizes the rankings from CES. Drinking water quality is a concern for Oak Glen and Lytle Creek. San Antonio Canyon Mutual Water Service Company, which serves Mount Baldy, also has

3. Environmental Justice Communities

concerns with long-term supply and its ability to provide water in case of long-term drought or stoppage. However, San Bernardino County LAFCO has not identified these areas as a hotspot. While additional policy issues may exist in these areas (e.g., adequacy of infrastructure or health-supporting land uses), these communities score favorably according to CES.

Table 3-13 Foothill-Mountain: CalEnviroScreen Score

Census Tract	Low Income	Percentile and Quartile Rank			Scores in the Upper Quartile	
		Composite Score	Pollution Score	Population Score	Pollution Factors	Population Factors
6071008703 (OG)	No	17	17	23	AQ	CVD
6071009201 (WW)	No	25	8	47	AQ	LB
6071000804 (SAH)	No	17	29	17	AQ	
6071009202 (MtB, LC)	No	35	58	23	AQ DW	
6071011500 (AO)	No	48	38	51	AQ DW IW	LB

Sources: OEHHA, CalEnviroScreen, version 3, 2016.

Rankings:

Quartile 1 = Good	Quartile 2 = Moderate	Quartile 3 = Poor	Quartile 4 = Challenged
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Variables in the CES model:

Pollution Exposure
AQ = Air Quality (incl. Ozone, PM_{2.5}, diesel PM)
DW = Drinking Water
TR = Toxic Releases
TD = Traffic Density

Environmental Effects
CS = Toxic Cleanup Sites
GW: Groundwater Threats
HZ = Hazardous Waste
IW = Impaired Waters
SW = Solid Waste Sites/Facilities

Sensitive Population
AS = Asthma
LB = Low Birth Weight
CVD = Heart Disease

Socioeconomic Factors
LI = Linguistic Isolation
POV = Poverty
UE = Unemployment
HB = Housing Burden
ED = Educational Attainment

4. LEGACY COMMUNITIES

This chapter discusses lower income unincorporated legacy communities as directed by state law with respect to water, wastewater treatment, and stormwater drainage systems; structural fire protection; and potential financial resources.

4.1 BRIEF OVERVIEW OF SB 244

Chaptered in 2011, Senate Bill 244 (California Government Code Section 65302.10), requires cities and counties to review and update the land use element of its general plan to identify lower income unincorporated communities, excluding any area within the sphere of influence of a city or incorporated town. In accordance with SB 244 and guidance provided by the Governor's Office of Planning and Research and San Bernardino County LAFCO, the County used the following criteria to identify lower income unincorporated communities:

- Located outside of city/town limits and spheres of influence of any city/town;
- Inhabited and has been for at least 50 years (also referred to as a legacy community);
- Consists of at least 10 dwelling units in close proximity (approximately 1-mile radius); and
- Median household income for the census tract less than 80% of the statewide median.

Qualifying unincorporated communities were identified using housing and income characteristics from the 2016 American Community Survey (ACS). At the time of the 2016 ACS, the State of California median household income was \$63,783. In accordance with SB 244, lower income households are those earning eighty percent of the statewide median, which equates to households earning \$51,026 or less.

The evaluation identified over two dozen qualifying unincorporated communities that are legacy communities located outside city or town spheres of influence, shown in Figure 4-1 and listed below in Table 4-1. SB 244 requires an assessment of water, wastewater, and stormwater drainage infrastructure as well as structural fire protection services in these communities. Compliance with the law also requires a discussion of financing opportunities that could make the extension or improvement of services to these communities feasible.

4. Legacy Communities

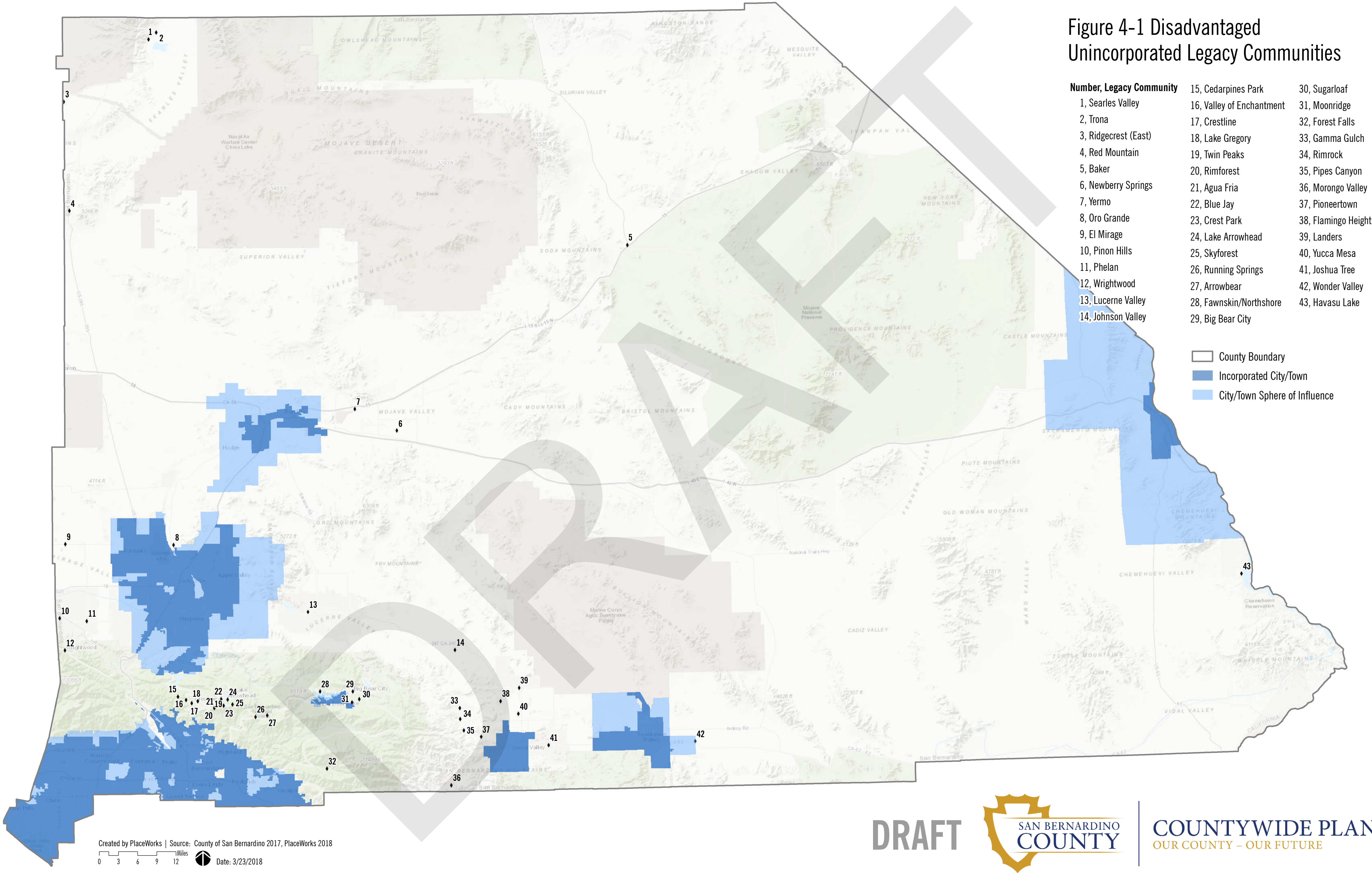
Table 4-1 Lower Income Unincorporated Legacy Communities

Valley Region	
There are no unincorporated communities that match the criteria set forth in California Government Code Section 65302.10.	
Mountain Region	
Bear Valley area: Big Bear City, Fawnskin (Northshore), Moonridge, and Sugarloaf	Lake Arrowhead area: Twin Peaks
Crest Forest area: Cedarpines Park, Crestline (Lake Gregory), and Valley of Enchantment	Additional communities with areas that match the criteria: Agua Fria, Blue Jay, Crest Park, Lake Arrowhead, Rimforest, and Skyforest
Forest Falls	Wrightwood
Hilltop area: Arrowbear and Running Springs	
Desert Region	
Baker	Phelan
El Mirage	Pinon Hills
Havas Lake*	Pioneertown area: Gamma Gulch, Pioneertown, Pipes Canyon, and Rimrock
Homestead Valley area: Flamingo Heights, Johnson Valley, Landers, Yucca Mesa	Red Mountain
Joshua Tree	Ridgecrest area*
Lucerne Valley	Searles Valley
Morongo Valley	Trona
Newberry Springs*	Wonder Valley
Oro Grande	Yermo
* The entire community does not match the criteria set forth in state law as a disadvantaged unincorporated legacy community, but portions of the community area do match the criteria.	

Growth Forecast

The majority of these areas are very small communities located far from incorporated jurisdictions and urbanized development. None are forecasted or planned for substantial growth through the year 2040. Incremental growth consisting of individual single family homes on larger lots without further subdivision is the expected pattern, with most areas expected to add, on average, fewer than 5 new homes per year. No substantial nonresidential development is expected in these communities.

Figure 4-1 Disadvantaged
Unincorporated Legacy Communities



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4. Legacy Communities

4.2 WATER SERVICES

Based on information from water agencies and providers, there is sufficient water supply, quality, and adequate water conveyance systems to serve existing development in most of the qualifying unincorporated communities identified under SB 244. Data collected by the San Bernardino County Local Area Formation Commission (LAFCO), however, indicates there are several service areas where upgrades are needed improve existing and future water quality.

Water services are provided to unincorporated communities through different retail water providers, including community services districts, county service areas, city/town agencies, water districts, and private systems.

The County of San Bernardino Public Health Department Division of Environmental Health Services (DEHS) has an agreement with the California Department of Public Health, Drinking Water Program for administration and enforcement of the Federal and State statutes and regulations for any water systems under 200 service connections. DEHS protects public health and safety by inspecting small water systems to prevent waterborne diseases, identify risks of bacteriological, chemical/radiological contamination, and provide technical assistance.

Additionally, private wells provide water throughout many rural areas of the unincorporated County. The construction, reconstruction or destruction of any well requires a permit from DEHS. However, the testing of water quality from private wells is typically only performed by the homeowner at their own expense.

Senate Bill 88 came into effect in 2016, which authorizes the State Water Resources Control Board to order consolidation of water systems where a public water system, or a state small water system within a lower income community, consistently fails to provide an adequate supply of safe drinking water. The State Board can order the extension of service to an area that does not have access to an adequate supply of safe drinking water so long as the extension of service is an interim extension in preparation for consolidation.

According to San Bernardino County LAFCO⁹ SB 88, "...expedites permanent solutions for failing water systems and those that have run dry. Consolidation may involve physical consolidation of the participating water systems, management of the participating water systems, or both. Consolidation and extending service from existing public water systems generally reduces costs and improves reliability by extending development costs to a larger ratepayer pool." Some water systems serving San Bernardino County unincorporated communities could be consolidated under SB 88.

Table 4-2 provides a summary of existing water systems and known or potential issues.

⁹ San Bernardino County LAFCO, LAFCO 3187 Countywide Service Review for Water (Wholesale, Retail, Recycled), 2017.

4. Legacy Communities

Table 4-2 Summary of Water Systems for SB 244 Analysis

Area	Primary Purveyors	Issues
Mountain		
Bear Valley	Big Bear City CSD, North Shore Mutual Water Company (MWC)	Potential water quality concerns due to concentration of septic systems
Crest Forest	Cedarpines Park MWC, Crestline Village Water District, Valley of Enchantment MWC	Potential water quality concerns due to concentration of septic systems.
Forest Falls	Fallsvale Service Company, Forest Park MWC	Potential water quality concerns due to concentration of septic systems.
Hilltop	Arrowbear Park County Water District, Crestline-Lake Arrowhead Water Agency, Running Springs County Water District	Potential water quality concerns due to concentration of septic systems; consolidation of water and wastewater services under a single agency could increase efficiency.
Lake Arrowhead	Crestline-Lake Arrowhead Water Agency, CSA 70 CG, Lake Arrowhead CSD	The County purchased the failing water systems and established CSA 70 CG to rectify deficiencies; improvements are in progress.
Wrightwood	Golden State WC, Wrightwood System	Relies upon snow melt and rain, with backup supply from Phelan Pinon Hills CSD
Desert		
Baker	Baker CSD	Water quality concerns and monitoring violations; lacks opportunities to tie into another system
El Mirage	Chamisal MWC, Phelan Pinon Hills CSD	Concerns on decreased groundwater levels
Havasui Landing	Chemehuevi Water Department	Provided through agreement with the Chemehuevi Tribe
Homestead Valley	Bighorn-Desert View Water Agency, Hi-Desert Water District, hauled water	Overdraft and quality concerns
Joshua Tree	Joshua Basin Water District	Basin recharge system in progress to prevent overdraft
Lucerne Valley	Bar H MWC, Center WC, Desert Dawn MWC, Desert Springs MWC, Golden State WC, Lucerne Valley System, Gordon Acres WC, Jubilee MWC, Lucerne Valley MWC, Lucerne Vista MWC, Mojave Water Agency, West End MWC	Groundwater quality is susceptible to contamination in some areas; Desert Springs and Gordon Acres Water Company did not comply with monitoring requirements; Gordon Acres may be consolidated with Hi-Desert MWC (under consideration with the State Water Board)
Morongo Valley	CSA 70 F, CSA 70 W-3, Golden State WC, Morongo Del Norte, and Del Sur hauled water service	Numerous deficiencies including well contamination
Newberry Springs	Newberry Springs CSD	Ground water is susceptible to fluoride contamination
Oro Grande	CSA 42	Infrastructure upgrades currently underway
Phelan/Pinon Hills	Phelan Pinon Hills CSD, Sheep Creek WC	Sheep Creek WC relies upon snowmelt and rain
Pioneertown	Hauled water service, CSA 70 W-4	Numerous deficiencies including well contamination Compliance with EPA Consent Order in progress
Red Mountain	Rand Communities Water District Sphere	Groundwater subject to contamination
Ridgecrest Area	Indian Wells Valley Water District	Ridgecrest-based agency (Kern County)
Searles Valley	Searles Domestic Water Company	Some homes are on private wells
Trona	Searles Domestic Water Company	Some homes are on private wells
Wonder Valley	Private wells, hauled water	Currently there are no physical connections to water services in nearby Twentynine Palms
Yermo	Yermo CSD, Liberty Utilities Yermo	Potential to consolidate with Daggett CSD

Sources: Unless otherwise noted; San Bernardino County LAFCO, LAFCO 3187 Countywide Service Review for Water (Wholesale, Retail, Recycled), 2017.

4. Legacy Communities

4.3 WASTEWATER TREATMENT

Most unincorporated communities in the Mountain and Desert regions use onsite wastewater treatment facilities (septic systems). Improving wastewater treatment in the Mountain Region is challenged by geology and topography, and there are some areas where new onsite treatment systems are restricted. Unincorporated communities in the Mountain Region are positioned to continue to serve existing residents and businesses and a limited, incremental style of growth. Hydrologic factors, including protecting groundwater quality, can present substantial challenges to increasing septic systems in the Desert. Table 4-3 provides a summary of existing systems and known or potential issues.

Table 4-3 Summary of SB 244 Wastewater Treatment

Area	Primary Purveyors	Issues
Mountain		
Bear Valley	Big Bear City CSD, CSA 53B, septic	Moratorium on new septic due to high concentration Potential access to the Big Bear Regional Wastewater Treatment Facility
Crest Forest	Crestline Sanitation District, Houston Creek Treatment, septic	none
Forest Falls	Septic	Has an onsite treatment management district
Hilltop	Arrowbear County Water District, CSA 79, Running Springs County Water District	Concentration of septic
Lake Arrowhead	Grass Valley Treatment Plant, Willow Creek Treatment Plant, septic	Concentration of septic
Wrightwood	Septic	none
Desert		
Baker	Baker CSD, septic	Lack of potential for intertie
El Mirage	Septic	none
Havasu Lake	Septic	none
Lucerne Valley	Septic	none
Newberry Springs	Septic	none
Oro Grande	CSA 42 Sphere, septic	Connection to Victorville wastewater treatment system
Phelan/Pinon Hills	Septic	Groundwater contamination concern from septic
Red Mountain	Septic	Lack of potential for intertie
Trona	CSA 82, septic	none
Searles Valley	CSA 82, septic	none
Yermo	Septic	Groundwater contamination concern from septic
Homestead Valley	Septic	Located in Hi-Desert Water District Sphere of Influence
Joshua Tree	Joshua Tree Water District, septic	Water District is exploring a regional wastewater treatment facility
Morongo Valley	Septic	N/A
Pioneertown	Septic	Some parts of this area are in Hi-Desert Water District Sphere of Influence
Wonder Valley	Septic	N/A

Sources: San Bernardino County LAFCO interviews 2015-2017, LAFCO 3187 Countywide Service Review for Water (Wholesale, Retail, Recycled), 2017.

4. Legacy Communities

Table 4-3 Summary of SB 244 Wastewater Treatment

Area	Primary Purveyors	Issues
Note: San Bernardino County LAFCO is in the process of performing a services review for wastewater treatment. The results are unavailable at this time.		

4.4 STORMWATER DRAINAGE

Stormwater drainage management takes many forms including development regulations, levees, vegetative cover, swales, curb and gutters, parkland, and retention basins among others. The San Bernardino County Flood Control District works with County Office of Emergency Services, Sheriffs, and Fire on the Flood Area Safety Task Force to coordinate efforts by cities, the county, state, federal, and non-profit agencies to provide for the protection of property owners, residents, and properties subject to the risk of erosion, mudflows, and flooding.

SB 244 qualifying unincorporated legacy communities with structures in Federal Emergency Management Agency (FEMA) 100-year flood zones may have existing or future needs for stormwater infrastructure. Structures in floodplains are exposed to a higher risk from flooding during or following storm events. However, most unincorporated communities qualifying under SB 244 are very low density, with acres of surrounding undeveloped lands able to accommodate and disperse stormwater flow.

The County's Floodplain Safety Overlay District identifies flood prone areas, largely consistent with FEMA. The County must submit a biennial report to FEMA describing changes in its flood hazard area, and development activities, residents, and structures in the floodplain. Additionally, the County adopted a pre-construction flood hazard and soil erosion pollution prevention inspection process to address potential flood hazards on sites outside the overlay (Development Code Chapter 85.11).

Although the Mountain Region is the recipient of significant winter storms, it has limited areas within the 100-year floodplain. With the exception of drainage channels that parallel major roadways and highways, most of the lower income unincorporated communities in the Mountain Region do not have complete storm drain systems.

The Desert Region experiences sporadic, but intense storms. FEMA designates much of the unincorporated Desert Region as Zone D—areas with possible but undetermined flood hazards or where no studies have been undertaken. In both regions, stormwater in low density areas is often managed onsite through private retention basins, swales, and landscaping. In more developed unincorporated communities, storm drainage capture and transport may be provided through roadside swales, landscaping, retention basins, recreational spaces with a dual purpose for retention, and sporadic curbs and gutters. Some stormwater infrastructure may be provided by the County, Caltrans, community services districts, community service areas, or other special districts.

Due to existing development standards and policies, remote locations, and the very low density nature of unincorporated communities, public drainage facilities are not a significant concern in many unincorporated communities. Qualifying unincorporated legacy communities with properties within FEMA 100-year flood zones and/or California Department of Water Resources (DWR) Awareness

4. Legacy Communities

areas are listed in Table 4-4 and shown in Figure 4-2. Minor conditions are where flood exposure is limited to undeveloped or extremely low density/intensity areas. Moderate flood exposure conditions have the potential to impact more substantial neighborhoods.

Table 4-4 Summary of SB 244 100-Year Flood Hazards

Area	100-Year Flood Hazards	Issues
Mountain		
Bear Valley	FEMA 1% annual chance	Minor 100-year flood zone exposure east of Big Bear Lake; much of the exposure is at the Big Bear City Airport and into undeveloped portions of Baldwin Lake
Crest Forest Communities	FEMA 1% annual chance	Moderate 100-year flood zone exposure west of Lake Gregory
Forest Falls	FEMA 1% annual chance	Moderate 100-year flood zone exposure generally along Slide Creek and Snow Creek Mill Creek Canyon, specifically
Hilltop Communities	None	None
Lake Arrowhead Communities	FEMA 1% annual chance	Minor 100-year flood zone exposure adjacent to Lake Arrowhead and some tributary creeks; almost all of the exposure is on undeveloped land
Wrightwood	FEMA 1% annual chance	Moderate 100-year flood zone exposure in the southern half of the community
Desert		
Baker	FEMA 1% annual chance	Moderate 100-year flood zone exposure on far west side of the community
El Mirage	DWR Awareness	Minor 100-year flood zone exposure on relatively undeveloped east side, includes the El Mirage Field private airport.
Havas Lake	DWR Awareness	Moderate 100-year flood zone exposure
Homestead Valley	DWR Awareness/FEMA 1% annual chance	Minor 100-year flood zone exposure along washes dispersed throughout the area
Joshua Tree	DWR Awareness/FEMA 1% annual chance	Moderate 100-year flood zone exposure along washes and canyons dispersed throughout the area
Lucerne Valley	DWR 1% annual chance	Moderate 100-year flood zone exposure in centrally located neighborhoods, including two fire stations
Morongo Valley	DWR Awareness/FEMA 1% annual chance	Moderate 100-year flood zone exposure dispersed throughout developed and undeveloped areas
Newberry Springs	DWR 1% annual chance	Minor 100-year flood zone exposure along a wash on the north side and I40 on the south side (Caltrans)
Oro Grande	FEMA 1% annual chance	Moderate 100-year flood zone exposure from the Mojave River, includes two schools
Phelan/Pinon Hills	DWR Awareness/FEMA 1% annual chance	Moderate 100-year flood zone exposure dispersed throughout the communities
Pioneertown	DWR 1% annual chance	Minor 100-year flood zone exposure along washes, primarily undeveloped areas
Red Mountain	None	None
Ridgecrest Area	None	None
Searles Valley	FEMA 1% annual chance	Moderate 100-year flood zone exposure in Argus area
Trona	None	None
Wonder Valley	DWR Awareness/FEMA 1% annual chance	Minor 100-year flood zone exposure along washes, primarily in undeveloped areas

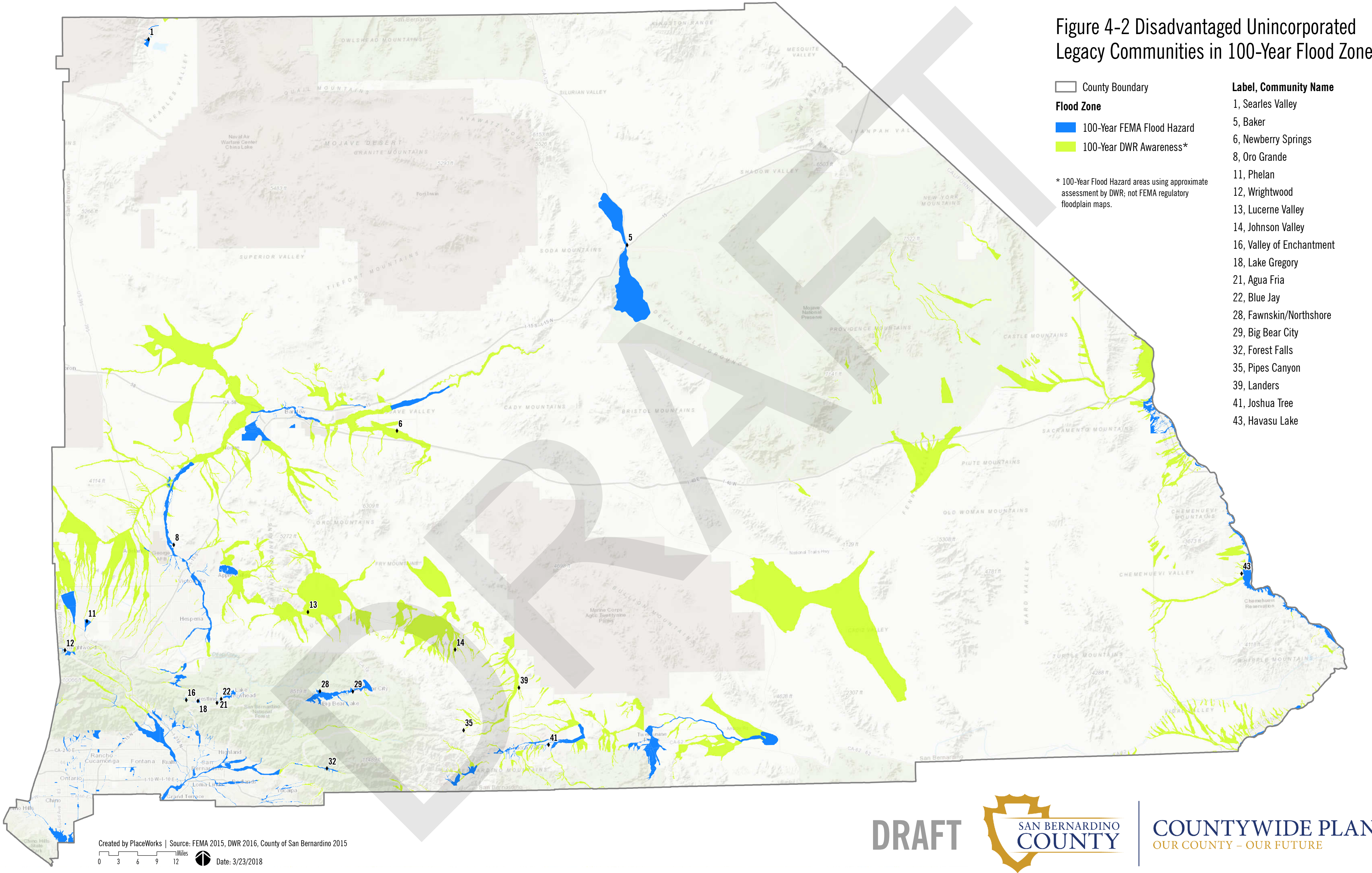
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Table 4-4 Summary of SB 244 100-Year Flood Hazards

Area	100-Year Flood Hazards	Issues
Yermo	DWR Awareness/FEMA 1% annual chance	Minor 100-year flood zone exposure along an undeveloped channel and primarily undeveloped wash (Calico area)

Source: California Department of Water Resources and Federal Emergency Management Agency

Figure 4-2 Disadvantaged Unincorporated Legacy Communities in 100-Year Flood Zones



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4.5 STRUCTURAL FIRE PROTECTION

The County reduces the threat of wildfires on structures through its Fire Hazard Abatement Program, which requires adherence to the fire hazard requirements outlined in San Bernardino County Code Section 23.0301 to 23.0319. The Fire Hazard Abatement Program proactively establishes defensible space, flammable materials removal, and compliance inspections.

The San Bernardino County Fire Department is one of the largest providers of fire protection services in the Valley and Desert Regions. All unincorporated communities in the Mountain Region are within state or federal (fire protection) responsibility areas, although many are also served by fire districts, local fire departments, and the San Bernardino County Fire Department. Automatic and mutual aid agreements are frequently used to provide fire suppression assistance for cities, towns, and unincorporated communities in San Bernardino County.

In addition, the San Bernardino National Forest Interagency Dispatch Center coordinates mutual aid responses to combat wildfires in the Mountain Region with these participating fire departments:

- Apple Valley
- Big Bear Fire Authority
- Colton
- Highland/CAL FIRE
- Loma Linda
- Rancho Cucamonga
- Redlands
- Running Springs
- San Bernardino City
- San Bernardino County
- San Manuel Band of Mission Indians
- Yucaipa/CAL FIRE

Another major land owner and administer in unincorporated San Bernardino County is the Bureau of Land Management (BLM). Although their fire prevention and suppression efforts focus on public lands, unincorporated communities abutting these lands benefit from BLM facilities and services. The BLM has automatic aid agreements to CAL FIRE, San Bernardino National Forest, Joshua Tree National Park, Death Valley National Park, Mojave Trails National Preserve, the Town of Apple Valley, and the County of San Bernardino.

The remote nature of many parts of San Bernardino County, regardless of SB 244 status, can make fire response times longer than in suburban or urbanized unincorporated communities. Additionally, more sprawling, rural communities may experience longer response times during inclement weather than their urban counterparts due to distance, visibility, and road conditions. Table 4-5 summarizes County fire facilities in and around qualifying unincorporated communities.

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Table 4-5 Summary of SB 244 Fire Facilities

Area	County Fire Facilities	Other Fire Agencies/Facilities and Issues
Mountain		
Bear Valley	Fawnskin Station #96	Baldwin Lake Fire Department San Bernardino National Forest Fire and Aviation Big Bear Ranger Station Mountains Area Mutual Aid System: Big Bear Fire Authority, Running Springs Fire Department, Arrowbear Lake Fire Department, San Bernardino County Fire Department
Crest Forest Communities	Crestline Station #25 Cedarpines Park Station #24 (inactive) Valley of Enchantment Station #28 (inactive) Lake Gregory Station #29 (inactive)	Crest Forest Fire Protection District CAL FIRE Pilot Rock Mountains Area Mutual Aid System: Big Bear Fire Authority, Running Springs Fire Department, Arrowbear Lake Fire Department, San Bernardino County Fire Department
Forest Falls	Forest Falls Station #99 (PCF)	San Bernardino National Forest Fire and Aviation Milk Creek Work Center
Hilltop Communities	Green Valley Lake Station #95 (PCF)	Arrowbear Park Water District Arrowbear Lake Fire Department Running Springs Water District Running Springs Fire Department Stations 1 and 2
Lake Arrowhead Communities	Lake Arrowhead Station #91 Lake Arrowhead Station #92 Lake Arrowhead Station #93 (inactive) Lake Arrowhead Station #94 Rimforest Station #30 (PCF) Twin Peaks Station #26	Mountains Area Mutual Aid System: Big Bear Fire Authority Running Springs Fire Department, Arrowbear Lake Fire Department, San Bernardino County Fire Department
Wrightwood	Wrightwood Station #14	United States Forest Service Mormon Rocks Station
Desert		
Baker	Baker Station #53 Needles Station #32	East Desert Mutual Aid System: Baker Community Services District, Needles Fire Department (contract w/ San Bernardino County FD), San Bernardino County Fire Department
El Mirage	El Mirage Station #11 (inactive) Adelanto Station #322 Phelan Station #10 Pinion Hills Station #13 (PCF)	CAL FIRE Phelan
Havasu Lake	Havasu Landing Station #18 (PCF) Black Meadow Landing Station #55 (PCF) Park Moabi Station #34 (inactive)	East Desert Mutual Aid System: Baker Community Services District, Needles Fire Department (contract w/ San Bernardino County FD), San Bernardino County Fire Department
Homestead Valley	Homestead Valley/Landers Station #19 (PCF) Lucerne Valley Station #8	Morongo Basin Mutual Aid System: Twentynine Palms Fire Department, Twentynine Palms Combat Center Fire Department, Morongo Valley CSD, San Bernardino County Fire Department
Joshua Tree	Joshua Tree Station #36	Morongo Basin Mutual Aid System: Twentynine Palms Fire Department, Twentynine Palms Combat Center Fire Department, Morongo Valley CSD, San Bernardino County Fire Department
Lucerne Valley	Lucerne Valley Station #7 (inactive) Lucerne Valley Station #8	High Desert Mutual Aid System: CAL FIRE Lucerne Valley (dispatch), Apple Valley Fire Protection District, Barstow Fire Protection District, Barstow Marine Corps Logistics Base, China Lake Naval Air Weapons Station,

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Table 4-5 Summary of SB 244 Fire Facilities

Area	County Fire Facilities	Other Fire Agencies/Facilities and Issues
		Daggett CSD, Fort Irwin Fire Department, Newberry Springs CSD, Searles Valley Minerals Fire Department, Yermo CSD
Morongo Valley	Pioneer Town Station #38 (inactive) Homestead Valley/Landers Station #19 (PCF)	Morongo Basin Mutual Aid System: Twentynine Palms Fire Department, Twentynine Palms Combat Center Fire Department, Morongo Valley CSD, San Bernardino County Fire Department
Newberry Springs	Harvard Station #52 (PCF)	High Desert Mutual Aid System: CAL FIRE Lucerne Valley (dispatch), Apple Valley Fire Protection District, Barstow Fire Protection District, Barstow Marine Corps Logistics Base, China Lake Naval Air Weapons Station, Daggett CSD, Fort Irwin Fire Department, Newberry Springs CSD, Searles Valley Minerals Fire Department, Yermo CSD
Oro Grande	Victorville Station #319 Helendale Station #4	
Phelan/Pinon Hills	Phelan Station #10 Pinion Hills Station #13 (PCF)	CAL FIRE Phelan
Pioneertown	Pioneer Town Station #38 (inactive) Homestead Valley/Landers Station #19 (PCF) Joshua Tree Station #36	Morongo Basin Mutual Aid System: Twentynine Palms Fire Department, Twentynine Palms Combat Center Fire Department, Morongo Valley CSD, San Bernardino County Fire Department
Red Mountain	N/A	Aid agreement with Kern County
Ridgecrest Area	N/A	Contract with Kern County Fire Department
Searles Valley	Trona Station #57 (PCF)	High Desert Mutual Aid System: CAL FIRE Lucerne Valley (dispatch), Apple Valley Fire Protection District, Barstow Fire Protection District, Barstow Marine Corps Logistics Base, China Lake Naval Air Weapons Station, Daggett CSD, Fort Irwin Fire Department, Newberry Springs CSD, Searles Valley Minerals Fire Department, Yermo CSD
Trona	Trona Station #57 (PCF)	High Desert Mutual Aid System: CAL FIRE Lucerne Valley (dispatch), Apple Valley Fire Protection District, Barstow Fire Protection District, Barstow Marine Corps Logistics Base, China Lake Naval Air Weapons Station, Daggett CSD, Fort Irwin Fire Department, Newberry Springs CSD, Searles Valley Minerals Fire Department, Yermo CSD
Wonder Valley	Wonder Valley Station #45 Twentynine Palms Station #44	Morongo Basin Mutual Aid System: Twentynine Palms Fire Department, Twentynine Palms Combat Center Fire Department, Morongo Valley CSD, San Bernardino County Fire Department
Yermo	Harvard Station #52 (PCF)	High Desert Mutual Aid System: CAL FIRE Lucerne Valley (dispatch), Apple Valley Fire Protection District, Barstow Fire Protection District, Barstow Marine Corps Logistics Base, China Lake Naval Air Weapons Station, Daggett CSD, Fort Irwin Fire Department, Newberry Springs CSD, Searles Valley Minerals Fire Department, Yermo CSD

4.6 FUNDING FOR IMPROVEMENTS

Typical funding sources for local government infrastructure improvements include taxes, benefit assessments, bonds, and exactions (including impact fees). While increased user rates can be used to make incremental system improvements, grants are a funding source that reduces the burden for rate payers. There are several funding options for addressing existing deficiencies including:

- Assessment district

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- Certificates of participation
- Community facilities district
- Community services district
- General obligation bonds
- Grant funding
- Infrastructure financing district
- Low interest loans (state or federal resources)
- Revenue bonds
- Tax allocation bond
- User rate increases

4.6.1 Water, Wastewater Treatment, and Drainage Assistance

California Department of Public Health Safe Drinking Water State Revolving Fund. According to the Governor's Office of Planning and Research, "The California Department of Public Health (CDPH) provides funding through the Safe Drinking Water State Revolving Fund (SRF). The SRF provides low interest loans to fund public water system planning and infrastructure projects. Grant funding may be available to communities that are unable to afford loans. Emphasis is focused on projects that solve public health and significant compliance issues.

Community Development Block Grants (CDBG). This flexible program provides communities and utility agencies with resources for a variety of plans and projects, including long range infrastructure planning, development, and repair. Utilities can use these grants to construct or improve water and sewer systems and other public utilities.

Community Development Block Grant Section 108 Loan Guarantee Program. Local governments can transform a small portion of their CDBG funds into federally guaranteed loans. This program provides communities with financing for public facilities construction, repair, or installation, property acquisition, site improvements, and assorted economic activities.

Community Development Block Grant Disaster Recovery Assistance. U.S. Congress may authorize disaster recovery funding for the CDBG program. Disaster recovery grantees must spend at least fifty percent of the funds on activities that benefit low and moderate income persons. Eligible activities include construction or repair of water, sewer, or drainage systems and construction or reconstruction of water treatment stations among other public facility and service needs.

FEMA Public Assistance Grant Program for Water and Wastewater Utilities. Following a Presidentially-declared emergency, FEMA provides grant assistance for the repair, replacement, or restoration of disaster-damaged publicly owned facilities and some non-profit facilities. Eligible recipients include public or non-profit drinking water and wastewater utilities.

Infrastructure State Revolving Fund Program. This program finances public agency and non-profit organizations that are sponsored by public agencies to take on a variety of infrastructure and economic development projects. Eligible projects include, but are not limited to:

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- Drainage
- Water supply
- Flood control
- Environmental mitigation measures
- Sewage collection and treatment
- Water treatment and distribution

State Water Board Prop 1 Storm Water Grant Program. Public agencies, non-profit organizations, public utilities, and tribal governments, mutual water companies, and groundwater sustainability agencies can apply for funds for green infrastructure, rainwater and storm water capture projects, and storm water treatment facilities. Eligible applicants also include cities, counties, special districts, assessment districts, and joint powers authorities. Eligible projects include, but are not limited to, drainage, water supply, flood control. Environmental mitigation measures,

State Water Board Revolving Fund Program. This low interest financing agreement program was established in 1987 under the Federal Water Pollution Control Act. The program supports a variety of water quality projects including:

- Wastewater treatment
- Sewers
- Sewer interceptors
- Water reclamation facilities
- Stormwater treatment
- Expanded use infrastructure

State Water Board Small Community Wastewater Grant Program. This grant program supports the planning, design, and construction of publicly-owned wastewater treatment and collection facilities to communities with a population of less than 20,000 persons and a median income that is less than 80 percent of the statewide median. All the unincorporated communities listed in this SB 244 analysis meet these criteria.

State Water Board Integrated Regional Water Management Grant Program. This grant is for mutually beneficial, multi-jurisdiction or multiagency solutions to water resources management challenges. There are several Integrated Regional Water Management regions within San Bernardino County including Mojave, Santa Ana Watershed, Inyo-Mono, and Antelope Valley.

State Water Board Water Quality Control Fund Cleanup and Abatement Account. This funds emergency waste cleanup projects to prevent water contamination, support regional water board projects to address unforeseen pollution problems, or abate impacts on waters of the state in an emergency. In some circumstances this fund can be used to provide drinking water systems maintenance.

Sustainable Communities Planning Grant and Incentive Program. The Department of Conservation manages Strategic Growth Council competitive grants to cities, counties, and regional agencies for natural resources conservation and sustainable community planning. The Sustainable

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Communities Grant Program can be used to prepare, adopt, and implement planning elements for sustainable infrastructure.

United States Department of Agriculture Rural Development Grants and Loans. This federal program supports infrastructure planning, water and wastewater system development, and emergency water assistance.

Water Sustaining and Manage America's Resources for Tomorrow (WaterSMART). This Department of the Interior Bureau of Reclamation cost-sharing grant program can be used on agricultural water reclamation projects that conserve water, increase use efficiency, or carry out other activities to address climate related impacts on water. The beneficiaries of projects should be the public, municipal water users, irrigation or water districts, or government entities with water delivery authority.

Rural Utilities Service Water and Environmental Programs. The United States Department of Agriculture Rural Utilities Service provides loans, grants, and loan guarantees for technical studies, drinking water, sanitary sewer, solid waste treatment, and storm drainage facilities in rural areas with populations less than 10,000. Public agencies, districts, non-profit organizations, and tribal governments may qualify.

Economic Development Administration Public Works Program. This program helps distressed communities repair, expand, and upgrade infrastructure to attract new industry and diversify local economies. This program supports communities that want to leverage infrastructure improvements to encourage economic development.

4.6.2 Structural Fire Assistance

CALFIRE State Responsibility Area Fire Prevention Fund and Tree Mortality Grant Program. These programs fund projects that remove dead or dying trees, hazardous fuel reduction, fire prevention education, and fire prevention planning. Eligible grantees include city and county governments, fire districts, special districts, community services districts, and water districts with a State Responsibility Area in their jurisdiction. There are numerous lower income unincorporated communities within or partially within a State Responsibility Area.

Mountain Region

- Bear Valley area: Big Bear City, Fawnskin (Northshore), Moonridge, Sugarloaf
- Crest Forest area: Cedarpines Park, Crestline (Lake Gregory), and Valley of Enchantment
- Forest Falls
- Hilltop area: Arrowbear and Running Springs
- Lake Arrowhead area: Agua Fria, Blue Jay, Crest Park, Lake Arrowhead, Rimforest, Skyforest, and Twin Peaks
- Wrightwood

Desert Region

- Homestead Valley area: Flamingo Heights and Johnson Valley
- Joshua Tree

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- Lucerne Valley
- Morongo Valley
- Phelan/Pinon Hills
- Pioneertown area: Gamma Gulch, Pioneertown, Pipes Canyon, and Rimrock

CAL FIRE Volunteer Fire Assistance. This is a federally-funded grant program that allows California to provide local and rural fire departments with minor firefighting, training, communications and safety equipment for volunteer firefighters. The VFA Program is not intended for major equipment or capital repairs.

FEMA and US Department of Homeland Security Assistance to Firefighters Grant. This grant supports fire departments obtain critically needed equipment such as protective gear, emergency vehicles, training, and other resources.

FEMA and US Department of Homeland Security Fire Prevention & Safety Grant. The purpose of this grant program is to enhance public safety as well as the safety of firefighters. Eligible activities include:

- Community risk reduction
- Code enforcement
- Public awareness
- Fire and arson investigation
- Regional fire prevention programs or studies

FEMA and US Department of Homeland Security Staffing for Adequate Fire and Emergency Response Grants (SAFER). This program provides funding to fire departments and volunteer firefighter organizations to increase or maintain the number of trained firefighters available in their communities. The goal of SAFER is to help fire stations meet NFPA standards.