FINAL DESIGNATION OF DISADVANTAGED COMMUNITIES
PURSUANT TO SENATE BILL 535
May 2022

I.   INTRODUCTION

With the increasing frequency and severity of wildfires, extreme heat, drought, and other climate impacts, there is no doubt that California must double-down on efforts to address climate change. That is precisely what California is doing through the billions of dollars of investments to reduce greenhouse gas pollution and safeguard our communities from the mounting risks related to that pollution. At the same time, many of our communities struggle with unacceptable levels of pollution and poverty. One of our best opportunities to address these related challenges is to direct climate investments to "disadvantaged communities."

Senate Bill (SB) 535 (De León, Chapter 830, Statutes of 2012) mandates that California use certain Cap-and-Trade auction proceeds to fund investments in "disadvantaged communities" (DACs). It charges the California Environmental Protection Agency (CalEPA) with the responsibility to designate DACs. CalEPA must base designations on "geographic, socioeconomic, public health, and environmental hazard criteria,"[1] but is given broad discretion for developing specific criteria and methods for applying those criteria.

In issuing previous designations, CalEPA relied upon the California Communities Environmental Health Screening Tool (CalEnviroScreen), a mapping tool developed by the Office of Environmental Health Hazard Assessment (OEHHA). On October 13, 2021, OEHHA released a new final version of CalEnviroScreen, Version 4.0. CalEPA determined that the improvements and updates in Version 4.0 were sufficiently material to warrant new designations of disadvantaged communities, pursuant to SB 535 (DAC designations).

In this designation, CalEPA generally defines communities in terms of census tracts and identifies four types of geographic areas as disadvantaged: (1) census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0; (2) census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores; (3) census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; (4) and areas under the control of federally recognized Tribes.[2]

II.   LEGAL BACKGROUND

California administers a suite of measures intended to reduce greenhouse gas emissions and air pollution. One of these is the California Air Resources Board's (CARB) Cap-and-Trade

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[1] Health and Safety Code § 39711(a).
[2] Some of these tracts of land are not visible in the maps in this document due to the limited granularity of the maps. An interactive map showing all designated disadvantaged lands can be found at https://calepa.ca.gov/envjustice/ghginvest/".

Program.

The Cap-and-Trade Program is a market-based system that establishes an annual declining limit – or cap – on about 80 percent of statewide greenhouse gas (GHG) emissions from the largest polluters ("covered entities") in the state. Covered entities must obtain allowances equal to their emissions. Allowances are purchased at quarterly auctions, which generates proceeds. The state's share of the auction proceeds is deposited into the Greenhouse Gas Reduction Fund (GGRF), which the Legislature appropriates to state agencies to implement California Climate Investments programs. The Legislature has established a set of requirements for the use of GGRF funds, including that the funds must be used to facilitate greenhouse gas emission reductions, benefit disadvantaged communities and low-income communities and households, and maximize other environmental, public health, and economic benefits, where applicable and to the extent feasible.

Through SB 535 and related legislation, the Legislature has mandated that certain percentages of GGRF funds be invested in DACs. It has charged CalEPA with designating such communities.

A. Funding Allocations

In 2012, the Legislature passed SB 535, which established initial requirements for minimum funding levels to DACs. In 2016, the Legislature passed Assembly Bill (AB) 1550 (Gomez, Chapter 369, Statutes of 2016), which established the currently applicable minimum funding levels. Under it, at least 25 percent of funds must be allocated toward DACs.[3] At least 5 percent must be allocated toward projects within low-income communities or benefiting low-income households.[4] And at least 5 percent must be allocated toward projects within and benefiting low-income communities, or low-income households, that are outside of a CalEPA-defined DAC but within ½ mile of a disadvantaged community.[5,6]

Together, SB 535 and AB 1550 help guide the California Climate Investments program in prioritizing investments to disadvantaged communities and low-income communities and households. CARB assists with the implementation of both bills by, among other things, developing resources and guidance for targeting investments towards DACs, low-income communities, and low-income households. These resources include CARB's "Funding Guidelines for Agencies Administering California Climate Investments," a mapping tool, and benefit criteria tables to guide demonstration of direct, meaningful, and assured benefits that

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[3] Health and Safety Code § 39713(a).
[4] *Id*., § 39713(b).
[5] *Id*., § 39713(c).
[6] The three set-asides for DACs and low-income communities and households are collectively referred to in California Climate Investment programming as "priority population" funding. The map of priority population areas will be updated by CARB upon finalization of the 2022 DAC designations and will be available here: https://webmaps.arb.ca.gov/PriorityPopulations/

meet community needs.[7]

B. Designation Requirement

Neither AB 1550 nor SB 535 provide a definition for "disadvantaged communities."[8] Instead, SB 535 directs CalEPA to "identify disadvantaged communities … based on geographic, socioeconomic, public health, and environmental hazard criteria."[9] It recognizes that these criteria "may include, but are not limited to":

- "Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure or environmental degradation."[10]

- "Areas with concentrations of people that are of low income, high unemployment, low levels of home ownership, high rent burden, or low levels of educational attainment."[11]

SB 862 (Leno, Chapter 836, Statutes of 2014) requires CalEPA to hold at least one public workshop prior to the identification of disadvantaged communities.[12] It expressly exempts CalEPA's designations of disadvantaged communities from ordinarily applicable Administrative Procedure Act rulemaking requirements.[13]

III. CALENVIROSCREEN

CalEnviroScreen is a mapping tool developed by OEHHA on behalf of CalEPA that analyzes data on environmental, public health and socioeconomic conditions in California's census tracts to provide a clear picture of cumulative pollution burdens and vulnerabilities in communities throughout the state. It has become the national gold standard of geospatial data tools capable of driving more equitable decision-making.[14] CalEPA selected it as a methodology in determining the first DAC designation in 2014, and continues to use it, because it most clearly addresses the requirements in SB 535 that disadvantaged communities be identified based on geographic, socioeconomic, public health, and environmental hazard criteria. Additionally, CalEnviroScreen offers the advantage of having been subject to extensive public review by

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[7] More information on these resources can be found here: https://ww2.arb.ca.gov/our-work/programs/california-climate-investments.

[8] By contrast, AB 1550 defines "low-income communities" to mean "census tracts with median household incomes at or below 80 percent of the statewide median income or with median household incomes at or below the threshold designated as low income by the Department of Housing and Community Development's list of state income limits adopted pursuant to Section 50093." Health and Safety Code § 39713(d)(2).

[9] *Id.*, § 39711(a).

[10] *Id.*, § 39711(a)(1).

[11] *Id.*, § 39711(a)(2).

[12] *Id.*, § 39711(b).

[13] *Id.*, § 39711(c).

[14] E.g., Sammy Roth, Writing About Calamity and Holding on to Hope, L.A. Times, Nov. 28, 2021 ("Yet California has developed a novel approach for confronting these inequities. A tool called CalEnviro-Screen has been refined and turbocharged to the point where it is now a national model for locating the census tracts most overburdened with pollution.")

community groups, businesses, academic experts, and government agencies across California.

While CalEnviroScreen was developed through a process separate from that of the DAC designation, and while it informs a number of programs besides GGRF, it is integral to the GGRF DAC designation process. The framework for what later became known as CalEnviroScreen existed at the time the Legislature enacted SB 535.[15] CalEPA relied upon versions of the tool in its two previous designation processes, in 2014 and 2017, and continues to take it into account for the present designation.

A. Underlying Scientific Principles

The CalEnviroScreen methodology is based on several scientific principles, including:

- Scientific Literature: Existing research on environmental pollutants has identified socioeconomic and other sensitivity factors as "effect modifiers" that can increase health risk, depending on the combination of pollutants and underlying susceptibilities.

- Risk Assessment Principles: Some people (such as those with underlying health conditions) may be more sensitive to some chemical exposures than others. Risk assessments, using principles first advanced by the National Academy of Sciences, apply numerical factors or multipliers to account for potential human sensitivity (as well as other factors such as data gaps) in deriving acceptable exposure levels.

- Established Risk Scoring Systems: Priority-rankings done by various emergency response organizations to score threats have used scoring systems with the formula: Risk = Threat × Vulnerability.

B. Geographic Scale

CalEnviroScreen originally defined communities at the ZIP code scale but, since Version 2.0, has used census tracts as its units of geographic scale. There are approximately 8,000 census tracts in California. The United States Census Bureau (Bureau) explains that "[t]he primary goal of the census tract is to provide a set of nationally consistent small, statistical geographic units, with stable boundaries, that facilitate analysis of data across time."[16] The Bureau applies several criteria when drawing census tracts. In particular, "[i]n order to ensure a minimal level of reliability in sample data and minimize potential disclosures of sensitive information, a census

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[15] The framework for CalEnviroScreen was proposed in 2010 in the "Cumulative Impacts: Building a Scientific Foundation" report prepared by OEHHA. See https://oehha.ca.gov/calenviroscreen/report/cumulative-impacts-building-scientific-foundation-report. The report presented "the first step in developing a screening methodology to evaluate the cumulative impacts of multiple sources of pollution in specific communities or geographic areas." Id. However, the first draft of EnviroScreen was not released to the public until 2012. See "CalEnviroScreen 1.0 Drafts" at https://oehha.ca.gov/calenviroscreen/report-general-info/calenviroscreen-10-drafts.
[16] Bureau, Census Tracts for the 2020 Census—Final Criteria, 83 Fed. Reg. 56277 (Nov. 13, 2018.)

tract should contain at least 1,200 people or at least 480 housing units at minimum, and 8,000 people or 3,200 housing units at maximum."[17] Census tracts may not cross county or state lines, and they must comprise a reasonably compact and contiguous land area.[18] Whenever possible, census boundaries should follow visible and identifiable features.[19]

At the time OEHHA released Version 2.0 in 2014, it identified several advantages to using census tracts over ZIP codes. It stated that census tracts "[r]epresent a finer level of resolution for many parts of the state" and that "a more substantial set of demographic data is associated with each census tract."[20] In addition, "[c]ensus tracts are, on average, more uniform in population than ZIP codes." Census tracts "are made up of multiple census blocks, which are the smallest geographic unit for which population data are available."[21]

OEHHA has explained that another benefit of using census tracts is that they can show community-scale differences. At a larger scale, differences between communities could be lost, where at a smaller geographic scale (e.g., census block group) there could be less confidence in the underlying indicator data or concerns over confidentially of the health data, for example. The geographic scale of census tracts allows for statewide comparisons based on fixed boundaries. Census tracts are less variable regarding the size of the populations included and thus there is greater normalization of the population across the different geographic units.[22]

Both of these reasons for using census tracts remain the case today.

C. Scoring

CalEnviroScreen 4.0, like previous versions of the tool, scores census tracts to identify those that are disproportionately burdened by multiple sources of pollution and vulnerable population characteristics. It begins by assigning percentile scores for 21 statewide indicators, which fall into two categories, reflecting pollution burden and population characteristics. The percentiles are averaged for the set of indicators in each of the four components (Exposures, Environmental Effects, Sensitive Populations, and Socioeconomic Factors). These four components, in turn, are combined to yield an overall CalEnviroScreen score. Figure 1 below shows the ways that the individual indicators relate to each other and the overall CalEnviroScreen score.

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[17] Id., p. 56279.
[18] Id., p. 56280.
[19] Ibid.
[20] *Major Changes in CalEnviroScreen 2.0*, OEHHA, p. 1, available at https://oehha.ca.gov/media/CES20SummaryMajorChanges.pdf.
[21] CalEPA and OEHHA, CalEnviroScreen 4.0 (October 2021), p. 15, available at https://oehha.ca.gov/media/downloads/calenviroscreen/report/calenviroscreen40reportf2021.pdf.
[22] CalEPA and OEHHA, CalEnviroScreen 4.0 (October 2021), p. 15, available at https://oehha.ca.gov/media/downloads/calenviroscreen/report/calenviroscreen40reportf2021.pdf. The current version of CalEnvioScreen, Version 4.0 uses the Census Bureau's 2010 boundaries. New boundaries will be drawn by the Census Bureau as part of the 2020 Census but will not be available until 2022. OEHHA plans to update the census tract geography in CalEnviroScreen after the new boundaries are drawn.

Figure 1. CalEnviroScreen 4.0 Indicator and Component Scoring
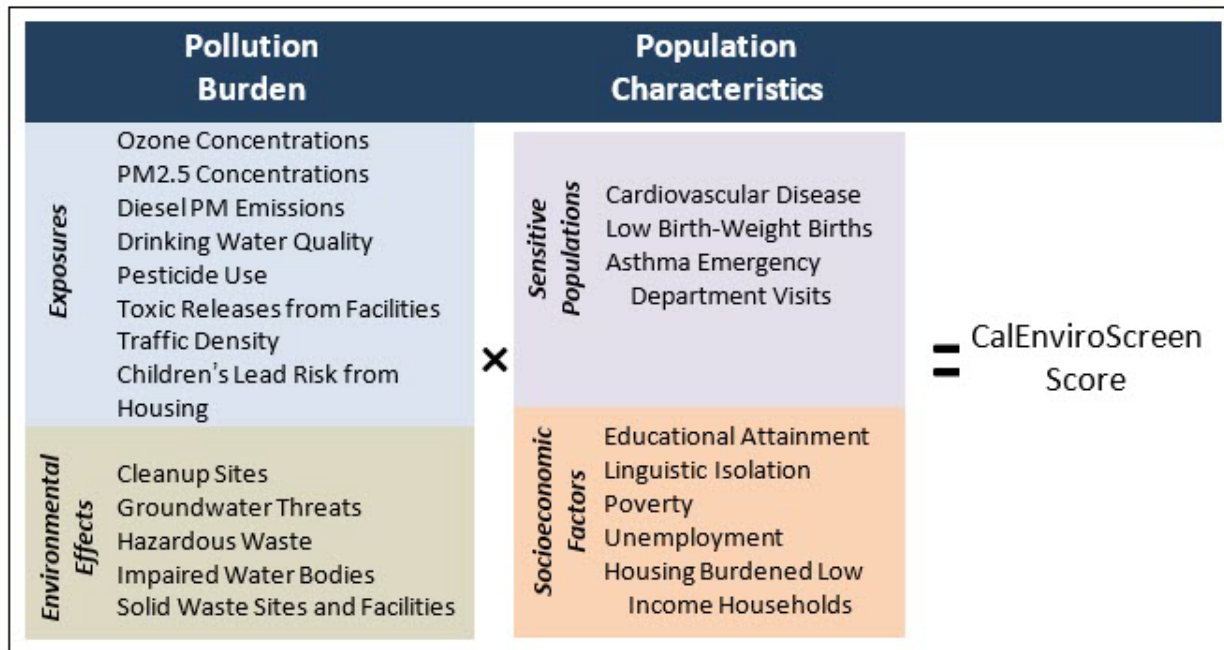
D. Iterative Improvements

Prior to the creation of CalEnviroScreen, a methodology did not exist to fully integrate, for a community in a given geographic location, the spectrum of pollutants (such as simultaneous exposure to numerous pollutants from multiple pollution sources), intrinsic factors (health status), and extrinsic factors (socioeconomic status) into risk assessment. Hence, OEHHA developed CalEnviroScreen to conduct statewide evaluations of community-scale impacts through this screening tool.

OEHHA initially created CalEnviroScreen by applying a framework (released to the public in 2010) for assessing cumulative impacts, based in large part on input from a statewide working group on environmental justice that pointed out the unmet need to assess cumulative burdens and vulnerabilities affecting California communities.[23] Subsequent versions updated CalEnviroScreen using the most current available data and incorporating various improvements and recommendations from residents, stakeholders, and government partners. To date, CalEPA has released five final versions of CalEnviroScreen.[24]

OEHHA released the current version – Version 4.0 – on October 13, 2021. Version 4.0 materially improves upon Version 3.0 and reflects the years of iterative improvement across all

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[23] *Cumulative Impacts: Building a Scientific Foundation*, OEHHA, December 2010, available at https://oehha.ca.gov/media/downloads/calenviroscreen/report/cireport123110.pdf.
[24] Final versions 1.0, 1.1, 2.0, 3.0, 4.0 were released in April 2013, September 2013, August 2014, January 2017, and October 2021, respectively.

versions of the tool.[25] It incorporates the most recent data produced by CalEPA's boards, departments and offices, the California Health and Human Services Agency, and federal entities. It refines the way certain indicators are calculated, to more precisely account for environmental conditions and a population's vulnerability to environmental pollutants. For example, it adds data on dairies and feedlots to the Groundwater Threats indicator, and it adds data on chrome metal plating facilities to the Hazardous Waste indicator. Additionally, Version 4.0 incorporates a new indicator of Children's Lead Risk from Housing to account for potential lead exposure from older housing.[26]

C. Public Process

In developing the current and previous versions of CalEnviroScreen, OEHHA has used multiple approaches to foster a sense of partnership across the state's highly varied communities and stakeholders and solicit input. Early work was guided by a group of external stakeholders, the California Environmental Justice Advisory Committee, which provided a definition for cumulative impacts that guided the development of the CalEnviroScreen framework. The Cumulative Impacts and Precautionary Approaches Work Group was later convened from 2008 to 2013 specifically to advance OEHHA's work in characterizing impacts. Both groups included representatives from community and environmental organizations, agricultural interests, industry groups, academic institutions, and local/regional and federal government.

Beginning with the first version of CalEnviroScreen, OEHHA has had particular success with a public engagement model adapted from the established World Café process. Using this model, OEHHA conducted workshops across the state, to "ground truth" and receive input on the tool using small group discussions. Workshops were held in communities with multiple pollution concerns.[27] This approach places an emphasis on creating a space for conversation in which many voices and perspectives can be heard, interaction is encouraged, and collective input is shared broadly across participants. While adequately representing the interests of all of California's nearly 40 million residents can be daunting, the approach has generated thousands of comments, which have been thoroughly reviewed and considered and that have led to improvements to the tool.

In each iteration of CalEnviroScreen, OEHHA has taken into account public comments. Notably,

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[25] See *California Communities Environmental Health Screening Tool, Version 1.0 (CalEnviroScreen 1.0)*, OEHHA, April 2013, available at https://oehha.ca.gov/media/downloads/calenviroscreen/report/042313calenviroscreen1.pdf; *California Communities Environmental Health Screen Tool, Version 2.0 (CalEnviroScreen 2.0)*, OEHHA, October 2014, available at https://oehha.ca.gov/media/CES20FinalReportUpdateOct2014.pdf; *Update to the California Communities Environmental Health Screening Tool: CalEnviroScreen 3.0*, OEHHA, January 2017, available at https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3report.pdf; *CalEnviroScreen 4.0*, OEHHA, October 2021, available at https://oehha.ca.gov/media/downloads/calenviroscreen/report/calenviroscreen40reportf2021.pdf.

[26] A full summary of the changes can be viewed here: Summary of Changes in CalEnviroScreen Version 4.0.

[27] In developing CalEnviroScreen 4.0, the public engagement process was further adapted in light of Covid-19. To reduce the spread of the Covid-19, workshops were held virtually.

it has added indicators on drinking water quality, diesel particulate matter emissions, and linguistic isolation, and it developed methods for incorporating data on pollution sources originating in Mexico that impact California communities.[28]

IV. DAC DESIGNATION PROCESS

The present designation marks the third CalEPA has issued under SB 535. This section reviews the previous designations. It then addresses the preliminary designation that formed the foundation for this final designation, and it identifies the communities that CalEPA is designating as DACs in the current process.

A. Previous DAC Designations

CalEPA issued previous DAC designations in 2014 and 2017. In the 2014 designation, CalEPA recognized as disadvantaged the census tracts that received overall scores in the highest 25 percent in what was then the operative version of CalEnviroScreen.[29] In the 2017 designation, CalEPA designated census tracts as disadvantaged on the basis of this same metric. In addition, it designated census tracts that lacked overall CalEnviroScreen scores due to data gaps but scored in the top five percent on the composite Pollution Burden indicator. These thresholds were chosen through a review of related statutes and proxy indicators of disadvantage. They took into account extensive public comments.

B. 2021 Preliminary Designation

On October 19, 2021, CalEPA released a preliminary designation (Preliminary Designation). In it, CalEPA proposed to designate four types of communities as disadvantaged: (1) census tracts with the highest 25 percent of CalEnviroScreen overall scores; (2) census tracts lacking overall scores due to data gaps, but with the highest 5 percent of CalEnviroScreen Pollution Burden scores; (3) census tracts recognized as disadvantaged in CalEPA's most recent SB 535 designation, made in 2017; and (4) areas under the control of federally recognized Tribes. After releasing the Preliminary Designation, CalEPA held two public meetings, on October 26 and October 27, 2021, and it received public comments through November 16, 2021. CalEPA thoroughly reviewed and evaluated all the comments it received. In fact, CalEPA pushed back its release of this final designation to provide CalEPA with additional time to consider the feedback it received. CalEPA has made an effort to respond, at least at a general level, to all relevant comments in the appendix attached to this designation.

C. 2021 Final Designation

After having reviewed and considered all comments submitted on the Preliminary Designation

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[28] For additional background on the evolution of CalEnviroScreen, see John Faust, et al, *California's Environmental Justice Mapping Tool: Lessons and Insights from CalEnviroScreen*, 51 ENVTL. L. REP. 10684 (August 2021).

[29] https://calepa.ca.gov/2014/10/31/press-release-2014-calepa-identifies-communities-targeted-for-cap-and-trade-investments/

(see attached appendix), CalEPA has decided to formally designate as DACs the four categories of tracts proposed for designation in the Preliminary Designation. Below, it explains its reasoning for designating each of the four categories.

1. Census Tracts with Highest 25 Percent Overall Scores

SB 535 provides four categories of criteria that CalEPA must consider in making a determination on how to designate disadvantaged communities, but it does not specify how many communities or what percentage of the population should be included in designations. In selecting the 25 percent threshold for the 2014 and 2017 designations, CalEPA looked toward the circumstances surrounding the enactment of SB 535, other legislation, and studies regarding disadvantaged communities.

For instance, in contrast to SB 535, the Legislature has determined in one other situation that CalEPA should identify the top 20 percent most disadvantaged communities. SB 43 (Wolk, Chapter 413, Statutes of 2013) created the Green Tariff Shared Renewables Program to allow consumers to purchase voluntarily electricity from renewable energy facilities through major utility companies. This program is intended to allow low-income Californians, generally renters, to participate in the market for renewable energy. The pilot program is limited to 600 megawatts statewide, to be shared proportionally by the major utility companies that implement the program. One hundred megawatts of that maximum are reserved for smaller facilities (no larger than one megawatt generating capacity) that are located in areas "identified by the California Environmental Protection Agency as the most impacted and disadvantaged communities." This provision encourages renewable energy facility development in disadvantaged communities to realize the socioeconomic and environmental benefits of that development and provide those communities access to renewable energy. Similar to SB 535, SB 43 tacitly references CalEnviroScreen by requiring these communities to be identified using a screening methodology designed to identify areas (1) disproportionately affected by pollution and environmental hazards and (2) with socioeconomic vulnerability.[30] Unlike SB 535, however, SB 43 not only asserts that the communities shall be identified by census tract, but also states that the communities shall be the most impacted 20 percent.[31] By setting aside program funds to benefit disadvantaged communities, SB 43 provides CalEPA with general guidance on where to establish a percentage threshold for identifying disadvantaged communities. It is not determinative, however, of the precise threshold for communities identified as disadvantaged for the purposes of SB 535.

In addition to looking at legislative approaches, CalEPA has also considered the portion of the state's population, families and households that under other standards would be considered disadvantaged.

- In 2019, the California Poverty Measure developed by the Public Policy Institute of California and the Stanford Center on Poverty and Inequality identified about 34 percent

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[30] Public Utilities Code §§ 2833(d)(1)(A)(i) and (ii).
[31] Public Utilities Code § 2833(d)(1)(A).

of California residents were poor or near poor, and 16.4 percent were living in or near poverty.[32]

- From 2015 to 2019, 16.7 percent of Californians ages 25 and over lacked a high school degree of equivalent.[33]
- In 2017, 28.4 percent of renters were severely cost-burdened, spending more than half of their income on rent.[34]
- In 2020, the Northwestern University Institute for Policy Research found that the food insecurity rate in California was 23.1 percent from April to July.[35]

While these data points do not represent a complete list of comparative markers, they provide CalEPA some instruction in determining a practical percentage threshold for disadvantaged communities. CalEPA also must balance the value of being inclusive of the many communities that face pollution burdens and vulnerabilities, with the consideration that an overly broad threshold would dilute the impact of SB 535 and AB 1550 by spreading the designated funding too thinly to provide the needed benefits.

The above reasoning applies as readily in 2021 as it did in 2014 and 2017. Moreover, once again using 25 percent as a CalEnviroScreen threshold would provide policy continuity and would ensure that approximately a quarter of California census tracts – which, collectively, are home to 9.6 million residents, or 24.3 percent of the state's population – receive DAC designations.

2. Census Tracts with Highest 5 Percent Pollution Burden Indicator Scores

In certain instances, CalEnviroScreen 4.0, like its predecessors, may not offer overall scores for tracts due to unavailable or unreliable population data. It would be inconsistent with the spirit of SB 535 to exclude tracts that are in fact disadvantaged from a DAC designation solely on account of unreliable data.

Therefore, for the 2017 designation, CalEPA considered proxies to use in place of unavailable overall scores. It settled upon tracts that scored in the highest 5 percent on CalEnviroScreen's Pollution Burden composite score. It determined that these census tracts generally reside in areas that are sparsely populated and located adjacent to census tracts that score in the top 25 percent of CalEnviroScreen scores. In some cases, these 19 census tracts represent some of the most significant pollution point sources in a region. Many of these high pollution census tracts include ports, airports, or heavy industrial areas.

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[32] *Just the Facts: Poverty in California*, Sarah Bohn, Caroline Danielson, and Patricia Malagon, July 2021, available at https://www.ppic.org/wp-content/uploads/JTF_PovertyJTF.pdf.

[33] *Quick Facts*, United States Census, available at https://www.census.gov/quickfacts/fact/table/CA/EDU635219#EDU635219.

[34] *Issue Brief: California's Housing Affordability Crisis Hits Renters and Households With the Lowest Incomes the Hardest*, Sara Kimberlin, California Budget and Policy Center, April 2019, available at https://calbudgetcenter.org/wp-content/uploads/2019/04/Report_California-Housing-Affordability-Crisis-Hits-Renters-and-Households-With-the-Lowest-Incomes-the-Hardest_04.2019.pdf.

[35] https://www.ipr.northwestern.edu/state-food-insecurity.html

3. Census Tracts Designated in 2017

CalEPA is designating as disadvantaged all the communities it designated in 2017. While there is an 85 percent overlap between the census tracts designated as disadvantaged in 2017 and those in the highest scoring census tracts under CalEnviroScreen 4.0, CalEPA sees value in ensuring that the 305 census tracts that were in the highest scoring 25 percent in CalEnviroScreen 3.0 but are not in the top 25 percent in CalEnviroScreen 4.0 continue to be considered disadvantaged and thus eligible for disadvantaged community-related funding opportunities through California Climate Investments. In some instances, these 305 census tracts may have fallen below the disadvantaged community thresholds, in part, because of California Climate Investments programming. Recognizing these communities as disadvantaged will allow for program continuity.

4. Lands Under Federally Recognized Tribes

CalEPA for the first time is designating as disadvantaged lands under the control of federally recognized Tribes,[36] including but not necessarily limited to Federal American Indian Reservations and lands held in trust by the United States for the benefit of American Indian tribes in California (collectively, Tribal Lands).[37] Data gaps related to Tribal nations frequently make it difficult to fully and accurately assess pollution burden and population characteristics of these areas in CalEnviroScreen. Specifically, because of their status as sovereign governments, federally recognized Tribes in California are not required to report or make publicly available to the state the types of data used in CalEnviroScreen. The data used in developing the drinking water quality, pesticide use, solid waste, asthma or cardiovascular disease indicators, for example, are not required to be reported to the state by federally recognized Tribes in California. Therefore, these data are often not available to the state.

CalEPA has accounted for such gaps by looking for information outside of CalEnviroScreen. In stakeholder meetings, Tribal representatives have raised concerns that these data gaps have meant that federally recognized Tribes in California have been effectively excluded from California Climate Investments-related funding despite frequently high levels of poverty, health and environmental burden, and increased suicide rates,[38] oftentimes related to the historical violence and deprivation federally recognized Tribes in California have endured. For example, recent census data show that the poverty rate on Tribal Lands in California is nearly double the

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[36] Federal Recognition refers to acknowledgement by the federal government that a Tribal government and Tribal members constitute a Tribe with a government-to-government relationship with the United States, and eligibility for the programs, services, and other relationships established for the United States for Indians, because of their status as Indians. (Title 25 United States Code § 83.2)

[37] American Indian Areas Related National Geodatabase, available at
https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-geodatabase-file.html.

[38] National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC) 2019. Suicide Rates for Females and Males by Race and Ethnicity: United States, 1999 and 2017. https://www.cdc.gov/nchs/data/hestat/suicide/rates_1999_2017.htm

state average.[39] While not specific to members of federally recognized Tribes[40] in California (because of present data gaps), health disparities for Native American communities are present in the following areas:

- **Heart Disease:** Native Americans[41] were 50 percent more likely to be diagnosed with coronary heart disease.[42]

- **Diabetes:** Well documented and recent data show that Native Americans have nearly twice the prevalence of diabetes compared to white populations nationally (14.7 percent compared to 7.5 percent).[43] In California, Native American populations had a diabetes prevalence of 10.4 percent.[44]

- **Asthma:** Native American adults have the highest asthma prevalence of any racial/ethnic groups, 40 percent higher than other groups.[45] Native American children are almost twice as likely to ever have had asthma.[46]

- **Obesity:** Native American adolescents are 30 percent more likely than non-Hispanic white adolescents to be obese. Native American adults are 50 percent more likely to be obese than non-Hispanic whites.[47] Obesity is a risk factor for several diseases including diabetes, heart disease, and stroke.

- **Infant Mortality:** Native Americans have almost twice the infant mortality rate.[48]

CalEPA has therefore concluded that the most reasonable way to approach data gaps for specific CalEnviroScreen indicators for tribal lands is to designate lands under the control of federally recognized Tribes as DACs. As discussed, these lands and the tribal communities that are located on them reflect "geographic, socioeconomic, public health, and environmental

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[39] American Community Survey 2015-2019, showing residents of federally recognized tribal lands in California with a 22 percent poverty rate, with 43 percent of residents at 200 percent of the federal poverty level, versus state averages of 13 percent poverty rate and 30 percent of the state below 200 percent of the federal poverty level.

[40] Identified as American Indians in published reports and available data however identified as Native Americans.

Based on data downloaded from https://data.census.gov/cedsci/

[42] CDC 2021. Summary Health Statistics: National Health Interview Survey: 2018. Table A-1a. http://www.cdc.gov/nchs/nhis/shs/tables.htm

[43] CDC. National Diabetes Statistics Report, 2020: Estimates of Diabetes and Its Burden in the United States. Atlanta, GA: Centers for Disease Control and Prevention; 2020 available at https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf

[44] Bullock A, Sheff K, Hora I, et al. *Prevalence of diagnosed diabetes in American Indian and Alaska Native adults,* 2006–2017. BMJ Open Diabetes Research and Care 2020; 8(1):e001218.. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7199144/.

[45] https://www.trackingcalifornia.org/asthma/who-is-vulnerable-to-asthma.

[46] CDC 2021. Summary Health Statistics: National Health Interview Survey: 2018. Table A-2a. http://www.cdc.gov/nchs/nhis/shs/tables.htm.

[47] CDC 2020. Summary Health Statistics: National Health Interview Survey: 2018. Table A-15a. https://www.cdc.gov/nchs/nhis/shs/tables.htm

[48] CDC 2020. Infant Mortality Statistics from the 2018 Period Linked Birth/Infant Death Data Set. National Vital Statistics Reports. Table 2. https://www.cdc.gov/nchs/data/nvsr/nvsr69/NVSR-69-7-508.pdf

hazard[s]" that would support a DAC designation.[49] CalEPA recognizes the value of accurate and comprehensive data as well as the burden associated with collecting data. It believes that this final 2022 DAC designation is a critical step in enabling Tribes to seek resources that can benefit their communities. Moving forward, CalEPA would like to coordinate with Tribes to explore ways to fill current data gaps.

Recognizing that the lands under the control of federally recognized Tribes may not be accurately reflected in the American Indian Areas Related National Geodatabase maintained by the U.S. Census Bureau, CalEPA will provide for a consultation-based process with any interested federally recognized Tribe to identify lands that are under its control but not accounted for in the American Indian Areas Related National Geodatabase. A Tribe may establish that a particular area of land is under its control, for purposes of this designation, by submitting evidence that would provide a reasonable basis for CalEPA to determine, in its discretion, that the Tribe has control over the land. A Tribe interested in participating in the consultation process should contact the CalEPA Deputy Secretary for Environmental Justice, Tribal Affairs and Border Relations.

V.   Conclusion

CalEPA is pleased to publish this updated DAC designation, pursuant to SB 535, which takes into account the latest and best available data and considers factors related to data unavailability. This designation will go into effect on July 1, 2022, at which point programs funded through California Climate Investments will use the designation in making funding decisions.[50] The time between finalization of this designation and July 1, 2022 allows administering agencies to consider how the designation will be implemented in their particular programs. In addition, CARB will use this time to develop guidance materials on implementation of the designation. This designation is an important step in ensuring that California Climate Investments yield significant benefits to California's disadvantaged communities, a goal to which the entire California government is committed.

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[49] Health and Safety Code § 39711(a).
[50] Agencies administering California Climate Investments programs are welcome to begin implementing this designation before July 1, 2022.

VI. FIGURES AND MAPS

The following maps use a U.S. Census Bureau GIS layer that includes only Reservations and Off Reservation Trust Lands. Thus, the maps may not include all the lands under the control of federally recognized Tribes. The term "Tribal Areas" in the map key also comes from the U.S. Census Bureau. In addition, while some Tribal Areas are not visible in the maps below due to the granularity of these maps, the following interactive link can be used to zoom into any area of the state and see all lands designated as disadvantaged: https://calepa.ca.gov/envjustice/ghginvest/.
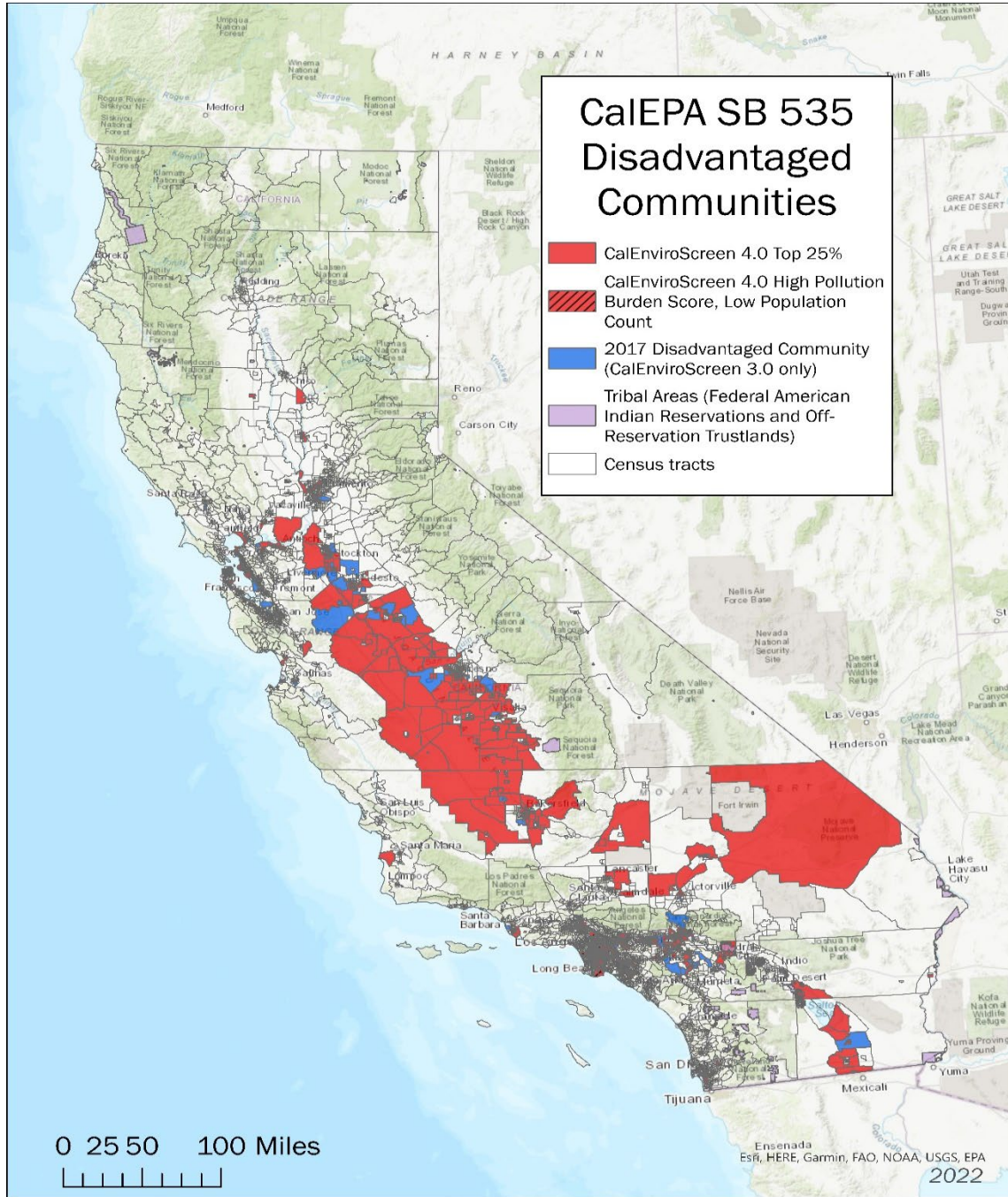
Figure 1: Statewide map of the disadvantaged communities

CalEPA SB 535 Disadvantaged Communities

CalEnviroScreen 4.0 Top 25%

CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count

2017 Disadvantaged Community (CalEnviroScreen 3.0 only)

Tribal Areas (Federal American Indian Reservations and Off-Reservation Trustlands)

Census tracts
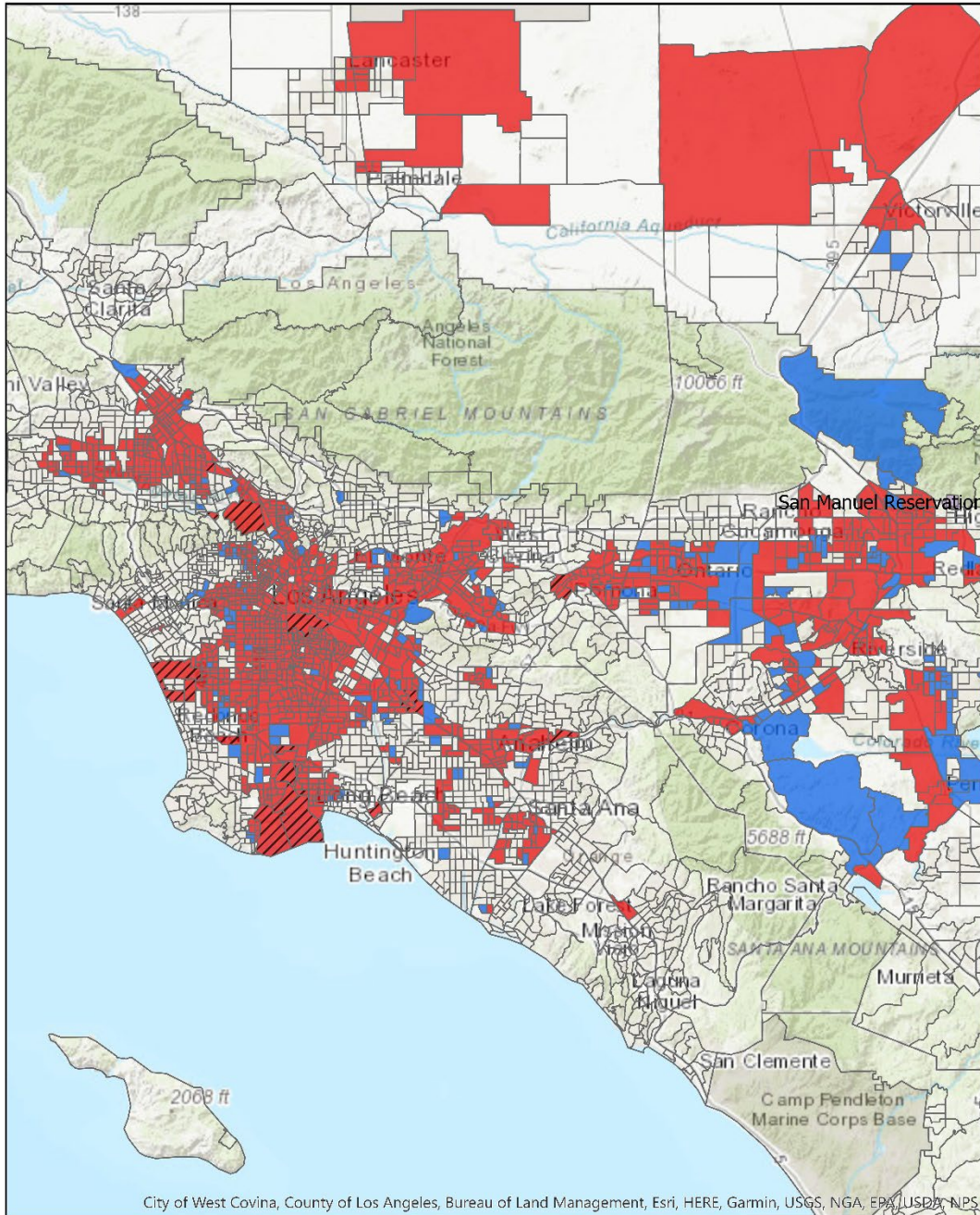
Greater Los Angeles Area

0   5   10   20 Miles

2022

Figure 2: Map of the disadvantaged communities in the Los Angeles region

CalEPA SB 535 Disadvantaged Communities

Legend:
- CalEnviroScreen 4.0 Top 25%
- CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count
- 2017 Disadvantaged Community (CalEnviroScreen 3.0 only)
- Tribal Areas (Federal American Indian Reservations and Off-Reservation Trustlands)
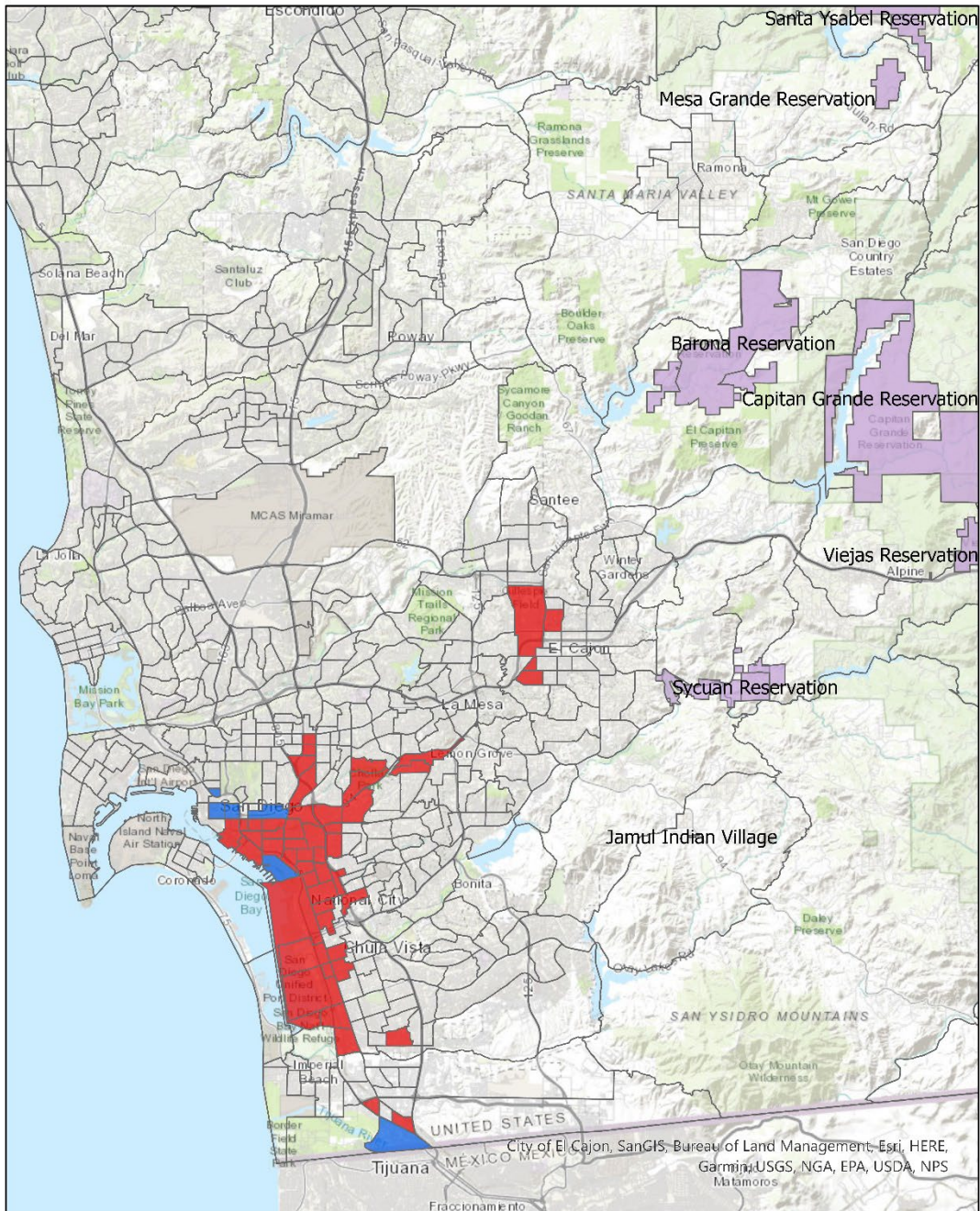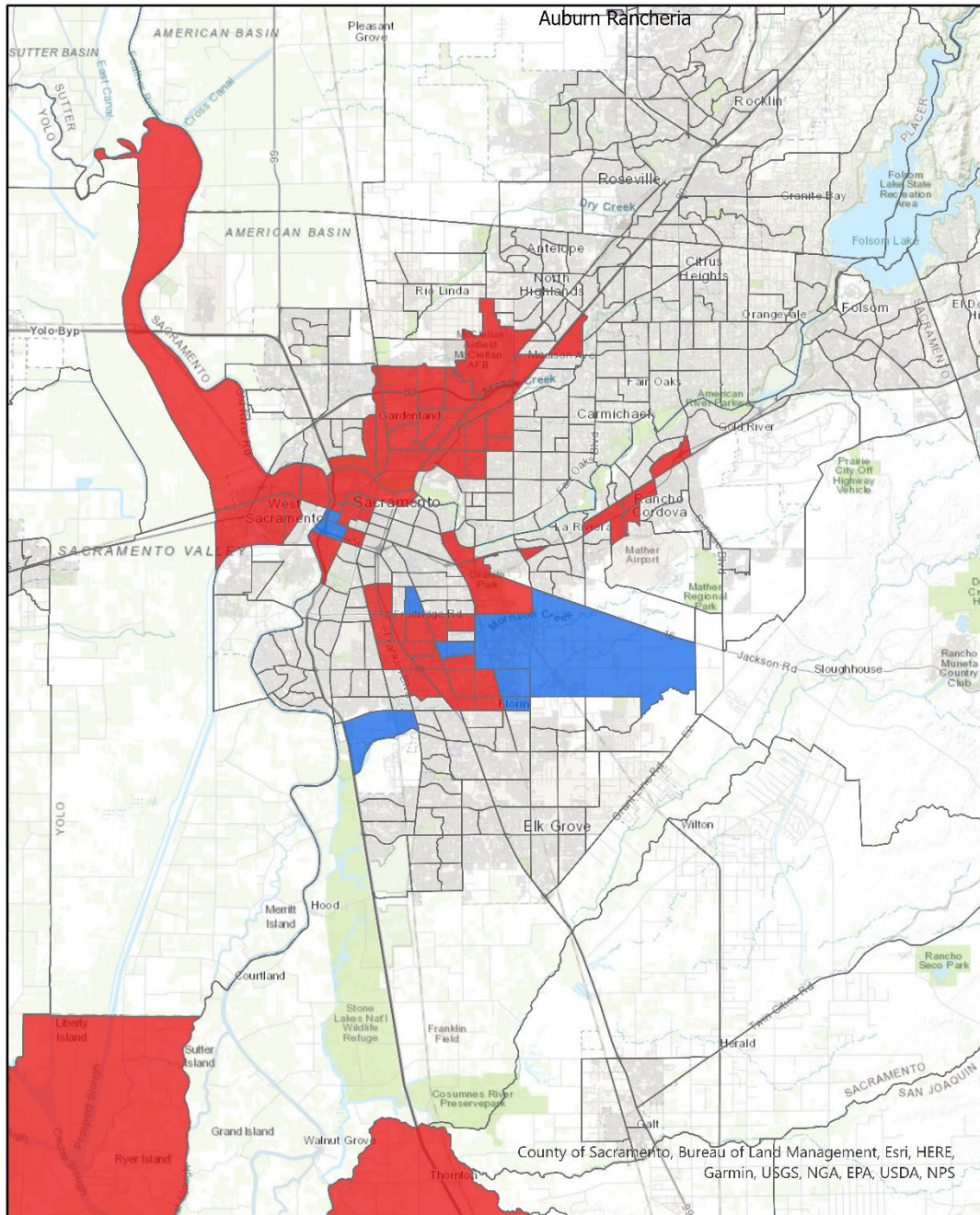- Census tracts
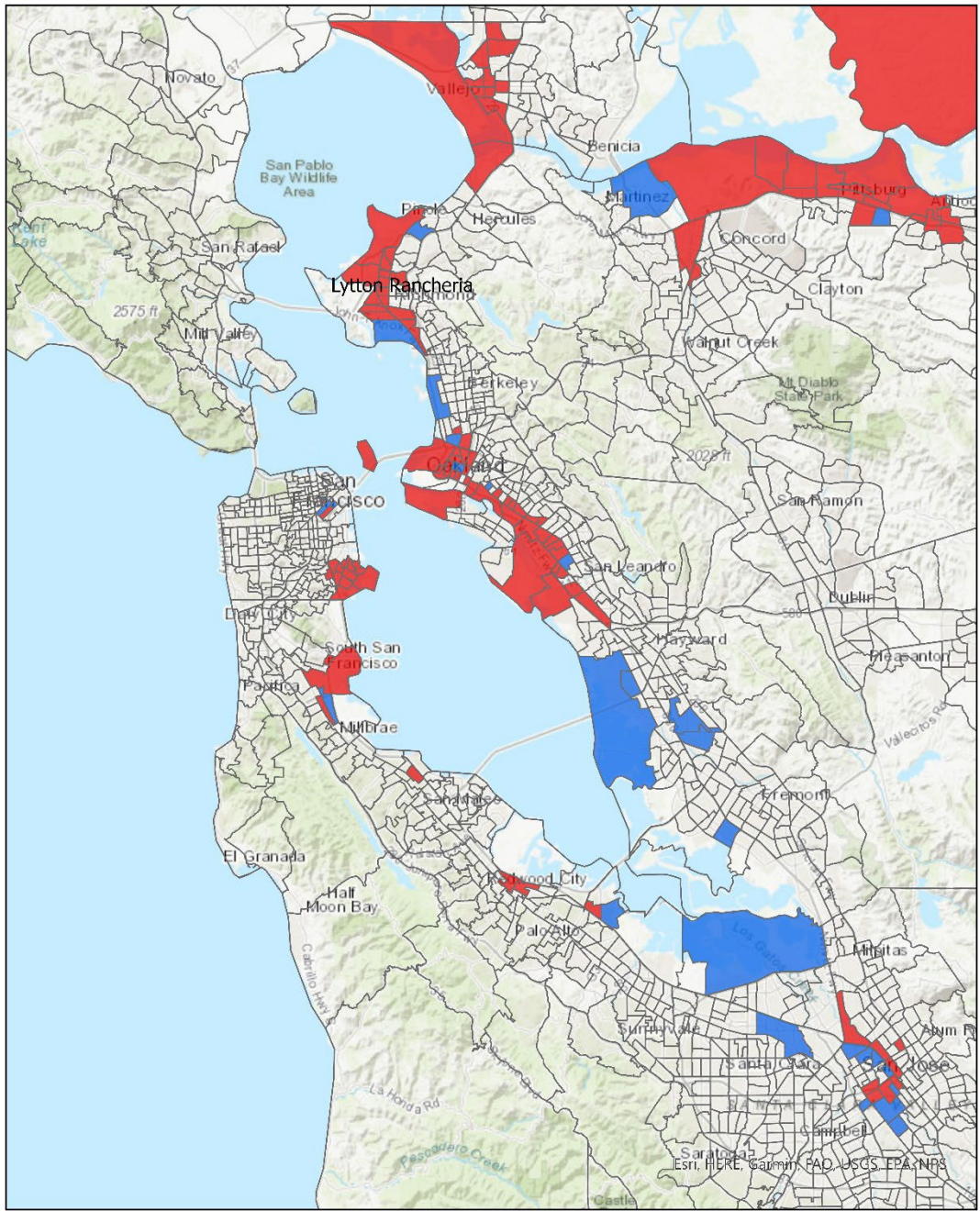
San Francisco Bay Area

2022

0   5   10   20 Miles

Figure 3. Map of the disadvantaged communities in the San Francisco Bay Area region

CalEPA SB 535 Disadvantaged Communities

Legend:
- CalEnviroScreen 4.0 Top 25%
- CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count
- 2017 Disadvantaged Community (CalEnviroScreen 3.0 only)
- Tribal Areas (Federal American Indian Reservations and Off-Reservation Trustlands)
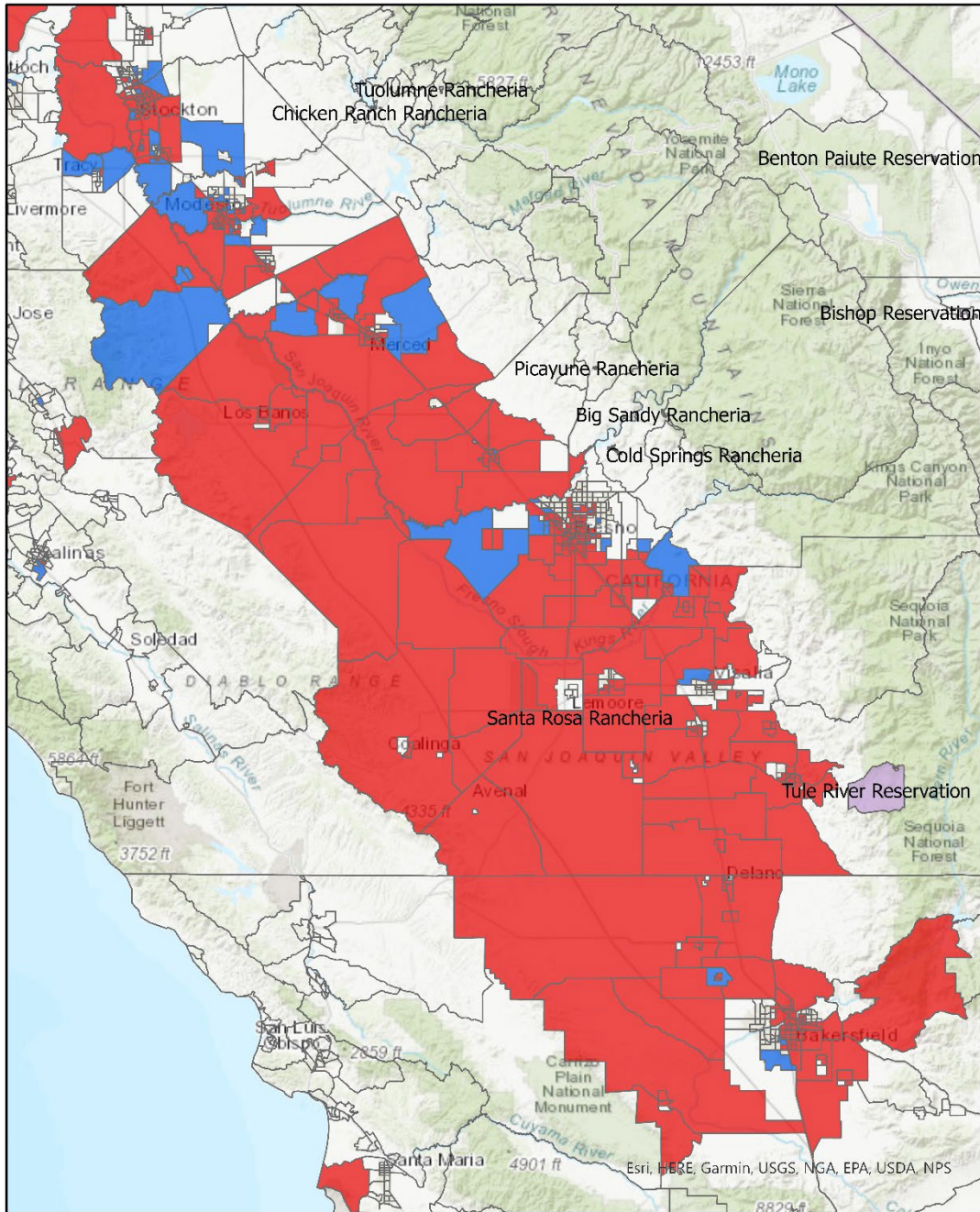- Census tracts

San Diego Area

2022

Figure 4. Map of the disadvantaged communities in the San Diego region

CalEPA SB 535 Disadvantaged Communities

Legend:

- CalEnviroScreen 4.0 Top 25%
- CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count
- 2017 Disadvantaged Community (CalEnviroScreen 3.0 only)
- Tribal Areas (Federal American Indian Reservations and Off-Reservation Trustlands)
- Census tracts

Sacramento Area

0   2.5   5   10 Miles

2022

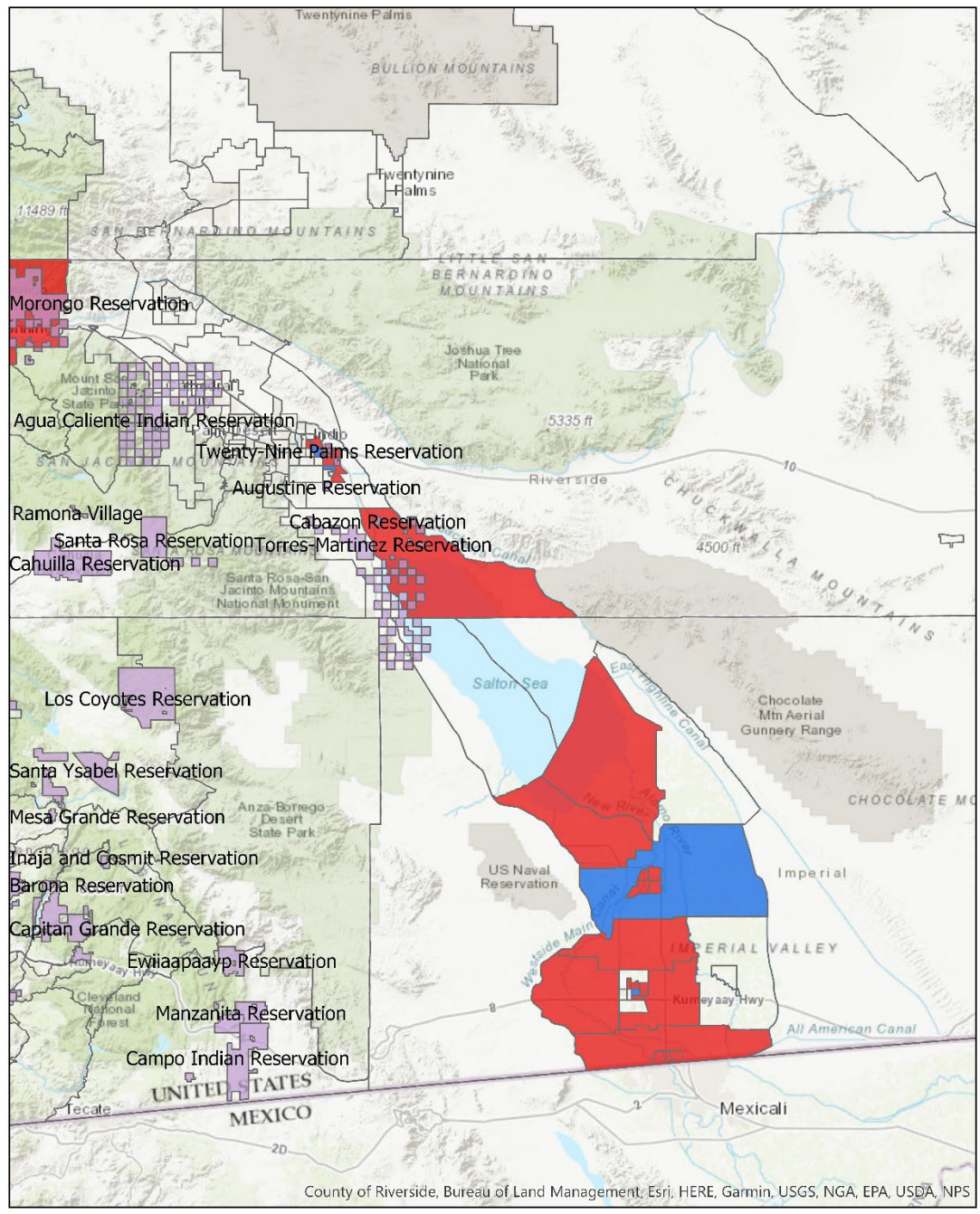*Figure 5. Map of the disadvantaged communities in the Sacramento region*

Figure 6. Map of the disadvantaged communities in the San Joaquin Valley

CalEPA SB 535 Disadvantaged Communities

CalEnviroScreen 4.0 Top 25%

CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count

2017 Disadvantaged Community (CalEnviroScreen 3.0 only)

Tribal Areas (Federal American Indian Reservations and Off-Reservation Trustlands)

Census tracts

Figure 7. Map of the disadvantaged communities in the Imperial Valley region

Figure 8. Map of the disadvantaged communities in the Northern California region

APPENDIX 1 – RESPONSES TO COMMENTS

CalEPA values stakeholder input and has attempted to develop the DAC designation in a transparent and collaborative manner, noting that the only statutory requirement (through SB 862) related to public participation in the designation process is that CalEPA hold one public hearing on the preliminary designation. Because CalEPA sees value in stakeholder engagement, for the 2022 designation, CalEPA additionally invited public comments from October 19, 2021 to November 16, 2021. During this time, CalEPA received numerous thoughtful and substantive comments. CalEPA addresses many of the issues raised in these comments in the final designation above. To the extent that the final designation above does not address comments received, CalEPA attempts to address them here.

1. **Requests to establish petition process.** Multiple commenters requested that CalEPA establish a petition process where communities could petition CalEPA for a DAC designation.

   CalEPA Response. CalEPA has decided not to establish a DAC designation petition process at this time. CalEPA has not identified objective criteria it could use to evaluate petitions other than the very criteria used for its Final 2021 Designations. In addition, CalEPA is concerned that such a petition process could favor wealthier or more organized communities that have the capacity to file a petition. The granting or denial of petitions could be viewed by some as being arbitrary and favoring certain communities (e.g., rural areas) or conversely, favoring other communities (e.g., urban areas). Using CalEnviroScreen 4.0 and the other objective criteria underlying the Final 2021 Designations provides CalEPA with a uniform approach across the state. This approach is reasonable and ensures consistency.

2. **Requests to modify CalEnviroScreen.** Several commenters suggested that OEHHA should modify CalEnviroScreen to account for additional indicators or to weight current indicators differently. For example, certain commenters requested that OEHHA modify CalEnviroScreen to include a climate impacts indicator.

   CalEPA Response: *As discussed in Section III above, OEHHA released Version 4.0 on October 13, 2021. It built upon the improvements of earlier versions, and it underwent an extensive public process. OEHHA uses comments and input received on the previous versions of the tool to inform the updates to the tool. In addition, the draft CalEnviroScreen 4.0 was released for public comment from February 19 to May 14, 2021.[51] OEHHA held a webinar and six workshops on the draft CalEnviroScreen 4.0.[52] This process for developing Version 4.0 is separate from the process for developing the DAC designations. It would be inappropriate to reopen Version 4.0 at this time, in response to comments received in the course of the DAC designation process since the public comment period for draft Version 4.0 closed in May 2021 and Version 4.0 was released in October 2021.[53] Moving forward, CalEPA intends to continue to work with OEHHA to refine CalEnviroScreen to account for updated data and improved modeling*

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[51] CalEnviroScreen 4.0, OEHHA (October 20, 2021), available at https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40.
[52] Id.
[53] OEHHA has thoroughly reviewed and evaluated the comments received during the public comment period for the draft CalEnviroScreen 4.0 and plans to release a response to comments later in 2022.

techniques[54]. It should be noted that CalEPA does not respond in this designation or appendix to comments substantively focused on the CalEnviroScreen tool.

3. **Requests to designate communities as DACs with high scores in a single or handful of indicators.** Multiple commenters recommended including communities with high scores on a single or a handful of indicators. For example, one commenter suggested designating communities as DACs that score in the top 25 percentile for 5 of the 21 indicators. Another commenter suggested that smaller communities with high scores in a few indicators should be designated as DACs.

CalEPA Response. SB 535 aims to direct funds toward improving public health, quality of life, and economic opportunity in California's "most burdened communities" while reducing pollution that causes climate change. CalEPA believes that it is reasonable to interpret "most burdened communities" as those communities that experience the greatest number of cumulative impacts. OEHHA has configured CalEnviroScreen to account for such cumulative impacts, which it defines to mean exposures and public health or environmental effects from all sources of pollution in a geographic area."[55] OEHHA has described the significance of cumulative impacts:

> *[m]any factors, often referred to as stressors, contribute to an individual or a community's pollution burden and vulnerability. Standard risk assessment protocols used by regulatory agencies cannot always account for the full range of factors that may contribute to risk and vulnerability. Risk assessments are often primarily designed to quantify health risks from a single pollutant or single source at a time, often in one specific medium (e.g., air or water). Many community groups and scientists have highlighted the fact that this approach fails to consider the totality of the health risks that communities face.*

> *In reality, people are simultaneously exposed to multiple contaminants from multiple sources and also have multiple stressors based on their health status as well as living conditions. Thus, the resulting cumulative health risk is influenced by nonchemical factors such as socioeconomic and health status of the people living in a community. In such situations, risk assessment has a limited ability to quantify the resulting cumulative risk. Furthermore, risk assessment requires extensive characterization of the chemicals present, the routes and levels of exposure, and the dose-response relationship for hundreds of chemicals for which data are neither currently available nor likely to be generated in the foreseeable future.[56]*

Focusing only on select indicators would deemphasize the cumulative nature of impacts. Therefore, CalEPA has decided to continue to focus on cumulative impacts and socioeconomic indicators of disadvantage, as measured by the CalEnviroScreen overall score and, in particular instances, the Pollution Burden composite score, rather than designate communities as disadvantaged because they have high scores on a single or handful of indicators. CalEPA concludes that this focus on cumulative impacts better

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[54] CalEPA has shared the comments it received during the public comment period for the preliminary DAC designation related to CalEnviroScreen 4.0 with OEHHA for future consideration.
[55] About CalEnviroScreen, OEHHA, available at https://oehha.ca.gov/calenviroscreen/about-calenviroscreen.
[56] CalEnviroScreen 4.0, OEHHA, CalEPA (October 2021), p. 9-10, available at https://oehha.ca.gov/media/downloads/calenviroscreen/report/calenviroscreen40reportf2021.pdf.

furthers the Legislature's directive that CalEPA develop criteria for identifying and directing GGRF funds to the most disadvantaged communities. This said, CalEPA reiterates that programs administering GGRF funds are not required to focus solely on CalEPA-designated disadvantaged communities. Aside from the targets set out in statute, program administrators have flexibility to focus their initiatives on the communities best served by their particular focus.

4. **Request to designate the tracts with the 30 percent – rather than 25 percent – highest scores in CalEnviroScreen as disadvantaged.**

    CalEPA Response*. In enacting SB 535, the Legislature signaled an intent to direct funding toward the "most impacted and disadvantaged communities." It did not, however, provide a bright line for distinguishing between communities that are impacted and disadvantaged and those that are "most" impacted and disadvantaged.*

    CalEPA recognizes the challenges inherent in selecting a numerical threshold and has considered at length the appropriate threshold for this context. In section IV.C.1 above, CalEPA explains the reasons it identified the census tracts in the top 25 percent of CalEnviroScreen scores as disadvantaged.

    While CalEPA could in theory lower the threshold – to 30 percent, or even further, to 35 or 40 percent – it is not aware of any factors that would render a lower threshold more reasonable than the 25 percent threshold, which has already undergone extensive public review, and which would provide for a measure of policy continuity from previous designations.

    CalEPA must balance the value of being inclusive of the many communities that face pollution burdens and vulnerabilities, with the consideration that an overly broad threshold would dilute the impact of SB 535 by spreading the funding too thinly. That is, CalEPA is mindful of the legislative intent animating SB 535 and of the risk that lowering the threshold could ultimately channel GGRF funds away from the "most impacted and disadvantaged communities."

5. **Request to define DACs to include all "priority populations."** Multiple commenters recommended that CalEPA designate tracts that have significant portions of particular populations.

    CalEPA Response*. CalEPA is mindful that SB 535 and AB 1550 conceive of communities as physical areas,[57] and it may not designate DACs in a manner that loses that geographical connection. That does not mean that the physical areas must always be contiguous. For example, CalEPA is designating Tribal Lands, which, for certain Tribes, may include lands that are non-contiguous. Such lands, however, would still be physical areas and connected in that they would fall under the control of a single Tribe.*

6. **Request to designate communities at a smaller geographic scale.** Several commenters suggested CalEPA should employ a more granular unit of geographic scale than census tracts. They stated that aggregating or averaging data across census tracts could obscure the burdens of smaller areas within those tracts.

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[57] SB 535 twice describes DACs as "areas." Similarly, both SB 535 and AB 1550 refer to "projects located within the boundaries of, and benefiting individuals living in, communities."

CalEPA's Response. Defining the precise boundaries of communities is a challenging exercise, particularly in a state as vast and populous as California. CalEPA believes there is considerable benefit to defining them, to the extent possible, in a manner that is standard from one community to the next. Standardization promotes equity across communities and eliminates the need to engage in an administratively resource-intensive exercise of drawing boundaries on a community-by-community basis. For the DAC designation process, CalEPA has generally chosen to define communities in terms of census tracts, where data are available, in part because CalEPA is using scores from CalEnviroScreen – which uses tracts as its standard unit of geographic scale – to identify DACs and in part because census tracts offer the independent advantages described in Section II.B above. CalEPA has departed from the use of census tracts only in the designation of lands under the control of federally recognized Tribes, which are generally not coterminous with census tract boundaries. In instances in which Tribal Lands occupy only a portion of a census tract, data unavailability may complicate the assessment of burdens at a tract level. Additionally, as compared to other communities that are smaller than census tracts, Tribal Lands are distinct because they fall under the control of Tribal governments.

7. **Request to designate communities on a program-by-program basis:** Several commenters suggested that CalEPA designate DACs on a program basis.

    CalEPA Response. Legally, CalEPA interprets SB 535 as directing it to issue a single designation for the purpose of allocating GGRF funds. CalEPA does not interpret the legislation as authorizing it to issue program-specific designations. DAC minimums apply across California Climate Investments portfolio and individual programs may have additional statutory direction or otherwise focus on the communities most appropriate to each program.

8. **Request to designate non-federally recognized tribes.** Several commentors suggested CalEPA should designate both federally recognized and non-federally recognized Tribes as disadvantaged communities.

    CalEPA Response. *CalEPA is not designating federally recognized Tribes as disadvantaged. It is designating lands under the control of federally recognized Tribes as disadvantaged. Section IV.C.4 above explains the reason for this designation. CalEPA appreciates that areas associated with non-federally recognized Tribes are often disadvantaged. Because the legal distinctions between federally and non-federally recognized Tribes differ, the same type of data gaps do not exist for communities associated with non-federally recognized Tribes. CalEPA instead is able to rely upon CalEnviroScreen in the same way it generally could for other areas outside the jurisdictions of federally recognized Tribes.*