



Primer on the Development of the Draft Environmental Justice (EJ) Communities Map

Purpose and Definition

Environmental Justice (EJ) Communities (sometimes referred to as “disadvantaged communities” by the State) are the specific beneficiaries of focused funding and targeted environmental justice efforts. In addition to being eligible for special considerations and investments, EJ Communities – and their existing community efforts and assets – should also be recognized and uplifted in order to equitably allocate resources for a healthy, fulfilled life.

Senate Bill (SB) 1000 requires jurisdictions to identify EJ Communities that are **low-income areas and are disproportionately impacted by pollution, socioeconomic vulnerability, and adverse health impacts**. This can be as simple as identifying the census tracts that the State designates pursuant to SB 535 (2012), which relies on the CalEnviroScreen methodology developed by the California Environmental Protection Agency’s (CalEPA’s) Office of Environmental Health Hazard Assessment (OEHHA). Alternatively, local jurisdictions have the option to refine this process using a more locally responsive methodology such as by including local and hyperlocal datasets. **Oakland has chosen to use this second approach, resulting in the development of the EJ Communities screening analysis and draft map.**

The screening analysis consists of a composite set of indicators (quantitative metrics of EJ issues). Each indicator is scored and then combined to identify the topmost cumulatively burdened communities. The map illustrates the geographic location of these communities and will be used to prioritize the needs of EJ Communities and to achieve environmental justice. Ultimately, the EJ Communities list and map will help inform City investments, support community efforts, and allow other departmental plans and future General Plan elements to integrate EJ goals.

The Process So Far

The [Environmental Justice \(EJ\) and Racial Equity Baseline](#) (published March 2022) was an important first step in presenting a preliminary screening analysis methodology for identifying EJ Communities. This began an iterative process of modifying and refining the methodology to ensure that the final EJ Communities Map in the EJ Element is representative of on-the-ground EJ conditions people experience in their daily lives. In addition, the methodology has been revised using the recommendations from the **Racial Equity Impact Assessment (REIA)**. The REIA used the selection guidelines listed below to assess the indicators used in the preliminary methodology from the **EJ and Racial Equity Baseline** and made recommendations to revise the indicators, as summarized in the following table. A full list of indicators used in the revised methodology is included at the end of this document.

- How well does the indicator measure an SB 1000 topic, such as health disparities?
- Does the indicator/metric reflect community priorities for change?
- Is the indicator actionable, and can City policy directly or indirectly impact it?
- Is the data currently available?

Table Summary of Changes

Replacement	Minor Adjustment	Addition	Removal
<ul style="list-style-type: none"> • Low-Income Areas (State definitions) with % of households making <30% HUD Area Median Family Income (HAMFI) • Pediatric Asthma Attributable to NO₂ and Adult Asthma Rate with CalEnviroScreen Asthma Emergency Department Visits • Urban Heat Island Index (CalEPA 2015) with Maximum Temperature during Future Heat Health Events projected by California Heat Assessment Tool 	<ul style="list-style-type: none"> • Life Expectancy (reversed to measure negative outcomes) • Median Household Income (reversed) • Active Commutes (reversed) • Community Facilities (reversed) • Park Access (reversed) • Evictions per renters, not per all residents 	<ul style="list-style-type: none"> • Proximity to Industrial Zones • Farmers’ Markets • Community Gardens • Energy Cost Burden • Extreme Commutes (90+ minutes) • Incomplete Plumbing/Kitchen Facilities • Students receiving Free or Reduced Price Meals (FRPM) 	<ul style="list-style-type: none"> • Distance to Healthcare Facilities

Inclusion of certain indicators over others does not preclude them as issues that should be considered in EJ. The EJ Element explores a robust range of topics that are all assessed in combination with the findings of the EJ Communities mapping process. For example, EJ Communities will be called out on all maps in the EJ Element, which allows for comparison of issues not included as indicators to the cumulatively identified EJ Communities. Similarly, the EJ Communities map will be used in tandem with individual EJ issue maps to show the extent to which the City experiences each issue (like illegal dumping) and then overlaying EJ Communities, which will receive priority for that specific issue.

Alongside community feedback on the preliminary screening methodology, the REIA also made recommendations on the thresholds for identifying EJ Communities. Instead of only identifying the top 25 census tracts with the highest composite screening score, the new methodology identifies 38 census tracts that meet at least one of the following conditions, in order of consideration:

1. Census tracts scoring 0.75 or greater (top 25%) for the overall composite score;
2. Census tract scoring 0.90 or greater (top 10%) for Race/Low Income, Pollution Burden, Sensitive Population, or Built Environment category scores (any of these); or
3. Census tracts within the West Oakland AB 617 Community boundary.

Note: The Air District, in partnership with Communities for a Better Environment and the East Oakland community, initiated the first Community Steering Committee meeting for the East Oakland AB 617 Community Emissions Reduction Plan (CERP) process on September 15th, 2022. The committee will meet monthly to develop a CERP to improve air quality and public health in the impacted communities of East Oakland. Once the community boundary for the East Oakland CERP is defined by the committee, the EJ Communities Map will be updated to include it.

Arriving at a Threshold

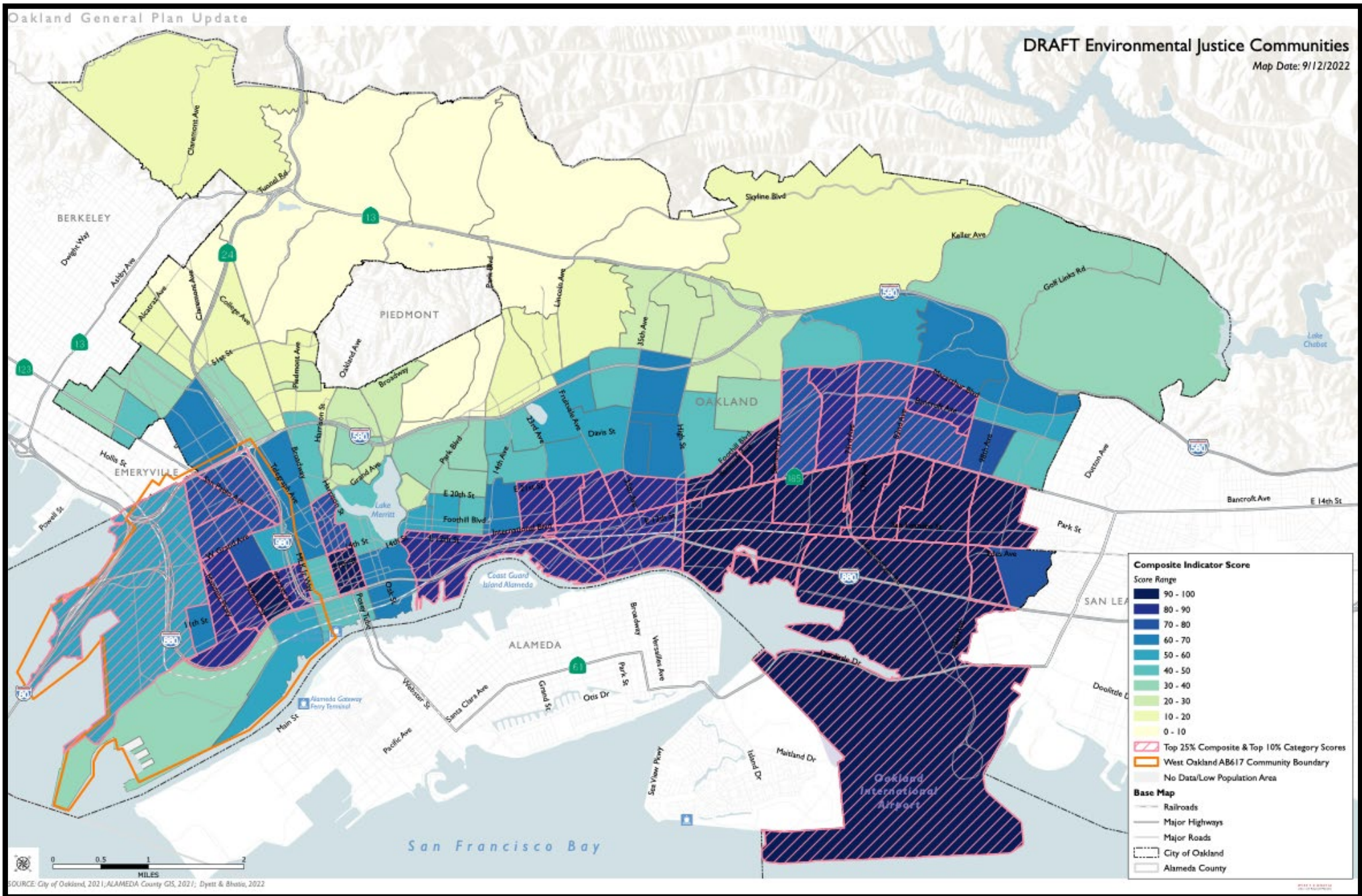
As summarized in the following table, there are 38 total census tracts that have been identified as EJ Communities: 29 are in the top 25th percentile by composite score, four additional census tracts are in the top 10th percentile of any one of the category scores, and five additional census tracts are located within the West Oakland AB 617 Community boundary. These census tracts are generally the darker-colored (higher-scoring) census tracts mapped on the **Draft EJ Communities Map**, which shows the results of the EJ Community screening analysis by the composite score. **All tracts in pink hatch are considered EJ Communities, in addition to those within the West Oakland AB 617 Community boundary (in orange).** Once the community boundary for the AB 617 CERP process in East Oakland is defined by the Community Steering Committee, the Draft EJ Communities Map will be updated to include it.

Table Summary of Draft EJ Communities

		Category Score				
Census Tract Name	EJ Community Criteria ¹	Composite Score	Race/Low Income	Pollution Burden	Sensitive Population	Built Environment
Fitchburg	Top 25% Composite	1.00	0.88	0.88	0.98	0.97
Lockwood/ Coliseum/Rudsdale	Top 25% Composite	0.99	0.99	0.97	1.00	0.63
Brookfield Village/ Hegenberger	Top 25% Composite	0.98	0.96	0.98	0.99	0.61
New Highland	Top 25% Composite	0.97	0.96	0.82	0.96	0.78
Elmhurst	Top 25% Composite	0.96	0.90	0.65	0.95	0.98
Fremont District	Top 25% Composite	0.96	0.87	0.85	0.85	0.88
Seminary	Top 25% Composite	0.95	1.00	0.57	0.89	0.96
Acorn	Top 25% Composite	0.94	0.88	0.74	0.97	0.78
Stonehurst	Top 25% Composite	0.92	0.95	0.59	0.94	0.87
Chinatown	Top 25% Composite	0.92	0.91	0.75	0.96	0.71
Melrose	Top 25% Composite	0.90	0.75	1.00	0.56	1.00
Brookfield Village	Top 25% Composite	0.90	0.78	0.81	0.88	0.84
DeFremery/Oak Center	Top 25% Composite	0.89	0.79	0.95	0.91	0.65
Jingletown/ Kennedy	Top 25% Composite	0.88	0.69	0.99	0.66	0.91
Fruitvale	Top 25% Composite	0.88	0.82	0.90	0.76	0.75
Lower San Antonio East	Top 25% Composite	0.87	0.91	0.78	0.68	0.86
Bancroft/ Havenscourt East	Top 25% Composite	0.85	0.95	0.42	0.90	0.95
Oakland Estuary	Top 25% Composite	0.85	0.65	0.96	0.71	0.90
Reservoir Hill/ Meadow Brook	Top 25% Composite	0.84	0.91	0.76	0.80	0.62
Fruitvale/Hawthorne	Top 25% Composite	0.83	0.83	0.84	0.86	0.55
Jack London Gateway	Top 25% Composite	0.82	0.83	0.64	0.83	0.76
Castlemont	Top 25% Composite	0.81	0.98	0.32	0.78	0.96
Prescott/Mandela Peralta	Top 25% Composite	0.80	0.48	0.92	0.59	0.99
Hoover/Foster	Top 25% Composite	0.79	0.62	0.92	0.51	0.93
Arroyo Viejo	Top 25% Composite	0.79	0.88	0.44	0.84	0.81
McClymonds	Top 25% Composite	0.78	0.56	0.94	0.61	0.81
Clawson/Dogtown	Top 25% Composite	0.77	0.45	0.96	0.75	0.72
Bancroft/ Havenscourt West	Top 25% Composite	0.76	0.73	0.51	0.92	0.70
Downtown	Top 25% Composite	0.75	0.74	0.63	0.87	0.57
Cox/Elmhurst	Top 10% Category	0.74	0.94	0.34	0.82	0.71
Webster	Top 10% Category	0.72	0.86	0.30	0.93	0.66
Bunche/ Oak Center	AB 617 Community	0.71	0.65	0.79	0.79	0.49
Eastmont	Top 10% Category	0.71	0.76	0.24	0.78	0.92
Prescott	AB 617 Community	0.63	0.44	0.80	0.71	0.53
Bunche/MLK Jr	AB 617 Community	0.58	0.51	0.70	0.46	0.76
Port Upper	Top 10% Category	0.57	0.23	0.91	0.34	0.93
Acorn Industrial	AB 617 Community	0.51	0.54	0.79	0.35	0.52
Port Lower	AB 617 Community	0.30	0.00	0.58	0.13	0.59

1. Some census tracts may meet more than one criterion, but table shows only the first one met, in order of: (1) Top 25% Composite, (2) Top 10% Category, and (3) AB 617 Community.

Map: Draft Environmental Justice Communities

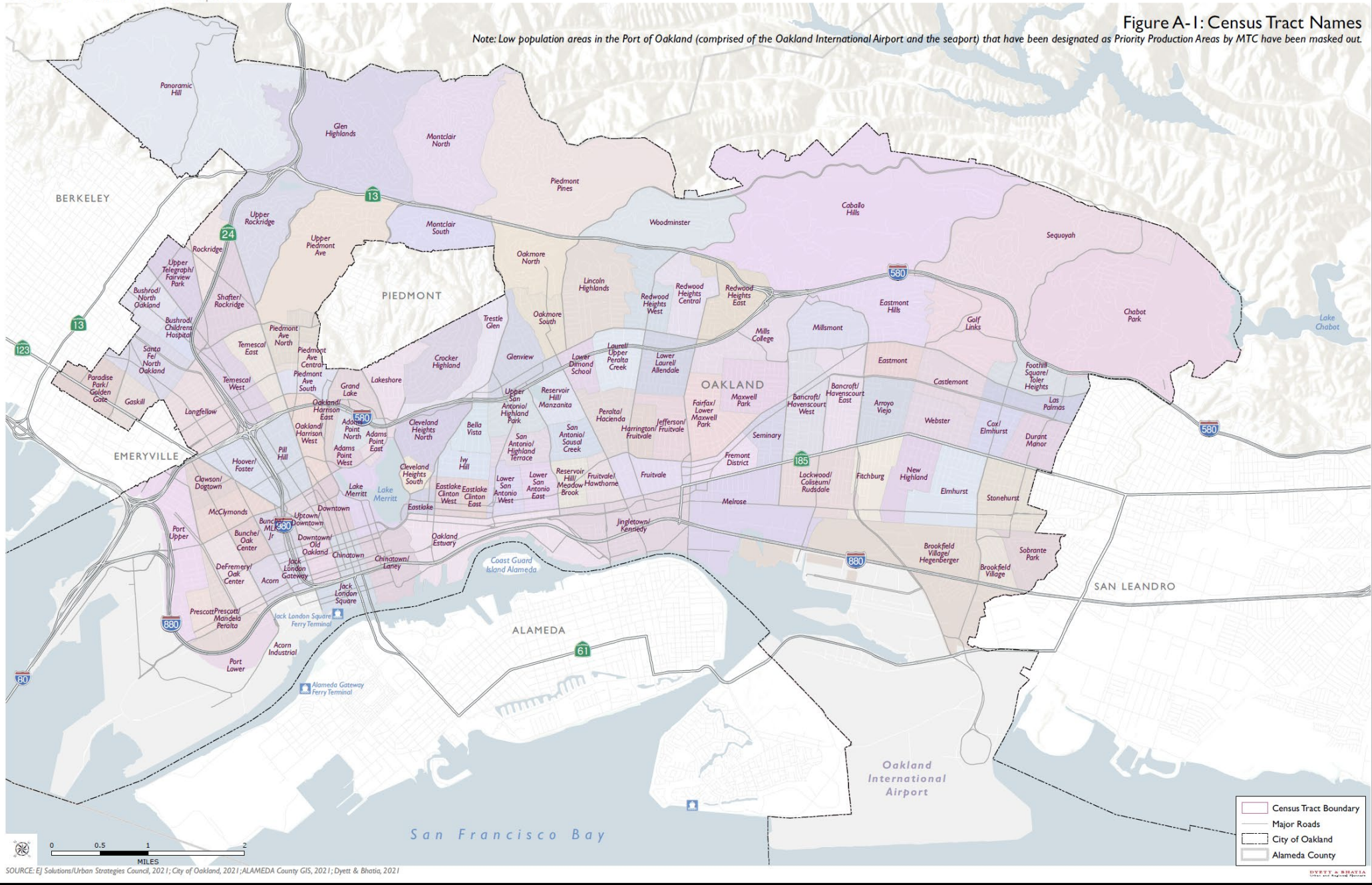


Map: Neighborhoods

Oakland General Plan Update

Figure A-1: Census Tract Names

Note: Low population areas in the Port of Oakland (comprised of the Oakland International Airport and the seaport) that have been designated as Priority Production Areas by MTC have been masked out.



SOURCE: EJ Solutions/Urban Strategies Council, 2021; City of Oakland, 2021; ALAMEDA County GIS, 2021; Dyett & Bhatia, 2021

Table of All EJ Communities Screening Indicators

<i>Indicator</i>	<i>Description</i>	<i>Source</i>
Race and Low Income		
People of Color		
People of Color ¹	Percentage of non-white, non-Hispanic/Latinx population in tract	2019 American Community Survey (ACS) 5-Year Estimates Table DP05
Very Low Income		
Very-Low-Income Households ¹	Percentage of households in a tract that make 30% or less than the HUD Area Median Family Income (HAMFI).	US Dept. of Housing and Urban Development (HUD) Comprehensive Housing Affordability Strategy (CHAS) 2015-2019
Pollution Burden		
Air Quality		
PM 2.5	Concentration of Particulate Matter 2.5 (2018), average of 1-km grid cell centers within the tract	Bay Area Air Quality Management District (BAAQMD) 2021, Dyett & Bhatia (D&B)
Diesel Particulate Matter	Concentration of Diesel Particulate Matter (2018), average of 1-km grid cell centers within the tract	BAAQMD 2021, D&B
Traffic Density	CES 4.0 raw score for Traffic Density	CalEnviroScreen 4.0
Lead	CES 4.0 raw score for Children's Lead Risk from Housing	CalEnviroScreen 4.0
Water		
Groundwater Threats	CES 4.0 raw score for Groundwater Threats	CalEnviroScreen 4.0
Impaired Water Bodies	CES 4.0 raw score for Impaired Water Bodies	CalEnviroScreen 4.0
Hazardous Materials		
Cleanup Sites	CES 4.0 raw score for Cleanup Sites	CalEnviroScreen 4.0
Hazardous Waste	CES 4.0 raw score for Hazardous Waste	CalEnviroScreen 4.0
Toxic Releases	CES 4.0 raw score for Toxic Releases	CalEnviroScreen 4.0
Solid Waste	CES 4.0 raw score for Solid Waste	CalEnviroScreen 4.0
Industrial Zones	Average proximity (in meters) to the nearest industrial zoning district, population-weighted	City of Oakland 2021, D&B
Climate Change		
Heat Health Events Max Temperature	Projected average maximum temperature during future Heat Health Events (HHEs) occurring between September and October, 2021-2040	California Natural Resources Agency (CNRA) California Heat Assessment Tool (CHAT) 2015
Energy Cost Burden	Tract average of total energy costs (including electricity, gas, and other fuel) as a ratio of household income, population weighted	US Dept. of Energy 2018, D&B
Sea Level Rise	Percent of population living in 100-year flood zone and 66 inches of sea level rise.	City of Oakland 2021, D&B
Sensitive Populations		
Health		
Asthma Emergency Department Visits	CES 4.0 raw score for Asthma	CalEnviroScreen 4.0
Life Expectancy at Birth	Life expectancy at birth in months, as a negative value	Alameda County Public Health Department (ACPHD) 2021

<i>Indicator</i>	<i>Description</i>	<i>Source</i>
Low Birth Weight	CES 4.0 raw score for Low Birth Weights	CalEnviroScreen 4.0
Mortality, NO2 Attributable	Percentage of annual deaths attributable to exposure to NO2, population-weighted tract average of census block groups	EDF 2021
Cardiovascular Disease	CES 4.0 raw score for Cardiovascular Disease	CalEnviroScreen 4.0
Cancer	Prevalence of adults diagnosed with cancer (except skin)	CDC PLACES 2020
Health Insurance	Percentage of adults <65 who do not have health insurance	CDC PLACES 2020
Socioeconomic		
Linguistic Isolation	CES 4.0 raw score for Linguistic Isolation	CalEnviroScreen 4.0
Educational Attainment	CES 4.0 raw score for Educational Attainment	CalEnviroScreen 4.0
Population with Disability	Percentage of population with one or more disabilities	2019 ACS 5-Year estimates Table C18108
Young Children	Percent of population who are 5 years of age or younger	2019 ACS 5-Year estimates Table B01001
Older Adult Population	Percentage of population who are 65 years or older	2019 ACS 5-Year estimates Table B01001
Median Household Income	Tract median household income, as a negative value ²	2019 ACS 5-Year estimates Table B19013
Unemployment	CES 4.0 raw score for Unemployment	CalEnviroScreen 4.0
Disconnected Youth	Percentage of population ages 16-24 not enrolled in school	2019 ACS 5-Year estimates tables B14003 and B14005
Internet Access	Percentage of households without internet subscription	2019 ACS 5-Year estimates Table B28002
Built Environment		
Transportation		
Road Safety	Number of crashes (traffic accidents, all modes and including both fatal/severe and non-severe) from 2016-2020 per mile of streets	SafeTREC Transportation Injury Mapping System (TIMS) 2022, D&B
Vehicle Ownership	Percentage of households that do not own 2+ vehicles	2019 ACS 5-Year estimates Table B25044
Active Commutes	Percentage of workers who do not commute by biking or walking	2019 ACS 5-Year estimates Table B08301
Extreme Commutes	Percentage of workers who commute 90+ minutes to work	2019 ACS 5-Year estimates Table B08303
Transit Access	Frequency of Peak Hour (weekday 4-7pm) Transit Service per capita, population-weighted tract average	EPA SmartLocation Database 3.0 2021
Food		
SNAP Food Assistance	Percentage of households receiving SNAP food assistance	US Department of Agriculture Food Access Research Atlas 2019
Low Food Access	Percentage of population living beyond 1/2 mile of a supermarket/supercenter/large grocery store	City of Oakland 2021, D&B
Farmers Markets	Average distance (in meters) to nearest farmers market, population-weighted	California Dept. of Food and Agriculture 2022, D&B
Community Gardens	Average distance (in meters) to nearest community garden, population-weighted	City of Oakland 2021, D&B

<i>Indicator</i>	<i>Description</i>	<i>Source</i>
Free or Reduced Price Meal	Percentage of enrolled students receiving free or reduced price meals (FRPM), averaged over 2017-2021 school years. Calculated based on the nearest school and weighted by number of enrolled students per census block group.	California Dept. of Education 2022, D&B
Housing		
Housing Habitability	Code enforcement complaints (zoning, blight, housing habitability, 2020) per 1,000 tract residents	City of Oakland 2021, D&B
Incomplete Facilities	Percentage of households in a census tract that lack complete kitchen or plumbing facilities	HUD CHAS 2015-2019
House Heating	Percentage of households without heating fuel	2019 ACS 5-Year estimates Table B25040
Overcrowding	Percentage of households with more than one occupant per room	2019 ACS 5-Year estimates Table B25014
Housing Burden	CES 4.0 raw score for Housing Burden	CalEnviroScreen 4.0
Evictions	Total number of evictions between 2000-2016 per renter, renter-weighted tract average	Eviction Lab 2018, D&B
Neighborhood		
Redlining	Score based on HOLC redlining map grades: A=1, B=2, C=3, D (redlined)=4, population-weighted tract average	HCD Affirmatively Furthering Fair Housing Data and Mapping Resources Database 2021
Community Facilities	Number of community facilities (libraries, senior centers, daycare centers, schools, recreation centers) per 1,000 population, as a negative value ²	City of Oakland 2021, D&B
Tree Canopy	Lack of tree canopy coverage (percent area without tree canopy), population-weighted tract average	NLCD 2019 (Tree Canopy Coverage 2016), D&B
Park Access	Percentage of population that is not within 10-minute (half-mile) walk of a park	City of Oakland 2021, D&B
Public Safety	Number of violent crimes (aggravated assault, homicide, rape, and other sex offenses) between 2016-2020 per 1,000 population	Oakland Police Department (OPD) CrimeWatch 2020, D&B
Illegal Dumping	OAK 311 Service calls for illegal dumping per 1,000 tract residents	City of Oakland 2021, D&B
<p>1. These indicators are both topics and individual indicators (same scores) because there is only one indicator for these topics.</p> <p>2. "As a negative value" means that the raw score was multiplied by -1 to reverse the ordering of the values so that the higher values (in this case, closer to zero) correspond with more burden/impact, which is consistent across all indicators.</p>		