2. Environmental Racism and Health Inequities in Oakland

2.1 HISTORICAL CONTEXT / ROOT CAUSES

ENVIRONMENTAL RACISM AS A HISTORICAL PROCESS

Past land use planning and zoning decisions have played a large role in shaping current environmental justice problems. Setting a course from the present to the future calls for an understanding of our current conditions, which in turn requires an understanding of historical trends in population change, land use, housing, economic opportunity, transportation, and other factors that have made Oakland the city it is today.

Oakland was founded in 1852 on unceded land of the Chochenyo-speaking Ohlone people, who were stewards of the land for thousands of years. After arrival of Spanish missionaries in the 1760s, Ohlone peoples were forced into labor camps at missions and baptized into the Catholic faith. During and after this time, Oakland expanded and urbanized at the further expense of the Ohlone people, their sacred sites, tribal cultural preservation, and tribal political status.[1] Nevertheless, this land continues to be of great importance to the Ohlone people.[2]

Disparities in social, physical, and economic environments and conditions continued in eras of industrial growth, which brought about significant change to the urban environment and increased residential segregation. Oakland was historically a destination for working people and immigrants due to the abundant industrial jobs and relatively affordable neighborhoods. Many neighborhoods often became cultural and ethnic enclaves when residents of color were barred from living in other parts of the city by segregationist policies, enforced with violence.

In Oakland, as in cities across the nation, communities of color were impacted by the 1930s, 1940s, and 1950s federal housing redlining policy, the practice of identifying majority-white areas as sound and profitable real estate investments and heavily subsidizing them through the Federal Housing Administration (FHA), while simultaneously refusing to insure mortgages in and near majority-Black neighborhoods and other communities of color. These areas were rated as “D”, or “Hazardous,” and color-coded as red on the infamous “Residential Security” maps created by the Home Owners’ Loan Corporation (HOLC). Residents of these “redlined” neighborhoods, including West Oakland and East Oakland, were denied access to credit, resulting in a cycle of disinvestment and poverty and creating the circumstances for long-term racial segregation. To prevent their own neighborhoods from being redlined, majority-white private developers, realtors, and homeowners were encouraged to write racially restrictive covenants into their deeds that further inhibited Black residents and other residents of color from moving into these areas.

Research shows that neighborhoods that were historically redlined are today more likely to suffer greater poverty, increased heat, lower life expectancy, higher incidences of chronic diseases, increased prevalence of poor mental health, and lower life expectancy at birth.[3]

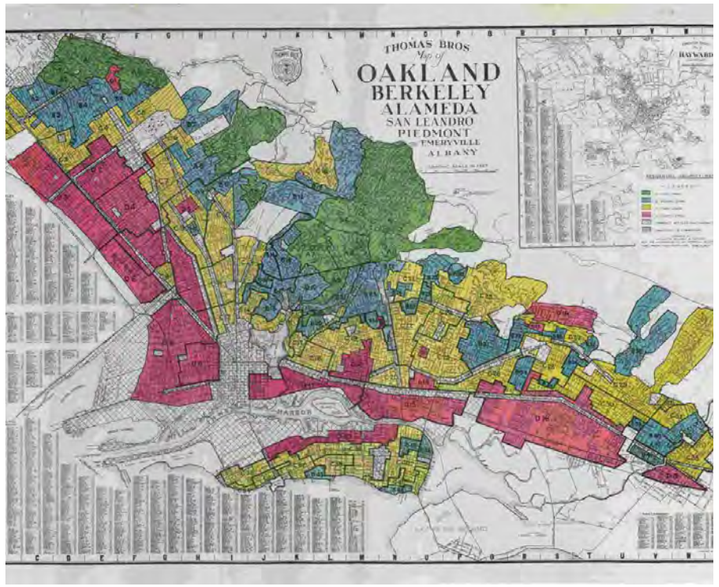
1 Mitchell Schwarzer, Hella Town: Oakland’s History of Development and Disruption, (Oakland: University of California Press, 2021).

2 Lisjan (Ohlone) History and Territory. Sogorea Te’ Land Trust. Accessed at *https://sogoreate-landtrust.org/lisjan-history-and-territory/*.

3 The Lasting Impact of Historic “Redlining” on Neighborhood Health: Higher Prevalence of Covid-19 Risk Factors (Washington, D.C.: National Community Reinvestment Coalition, 2020). *https://ncrc.org/holc-health/*

Using Redlining to Help Identify EJ Communities

The City can begin to redress the inequities brought about by discriminatory actions and practices by acknowledging the harm they have caused and perhaps more importantly, by recognizing that they continue to cause harm especially to low-income communities and people of color. For this reason, redlining is an indicator used in the SB 1000 Screening Analysis methodology to help identify EJ Communities in Oakland. Specifically, the methodology uses the grades that the Home Owners Loan Corporation assigned to various neighborhoods throughout Oakland in the 1930s to compare the places that benefited most from their grade A ("Desirable", shown in green on the image to the right) versus the areas that continue to face the repercussions of redlining (grade D, "Hazardous", shown in red on the image to the right).



Industrial growth during the World War II era further established Oakland as a hub for economic opportunity and jobs, which attracted an influx of Black and African American populations from the South (one of the waves of "Black migration"), many of whom settled in neighborhoods near their jobs, such as by the railroad in West Oakland. Following the war, federal policies like the GI Bill sponsored returning white veterans to settle into suburbs by providing low interest mortgages and loans, enabling what is known as "white flight." These same financial incentives were denied to veterans of color, and the continued practice of redlining and racially restrictive covenants further delineated economic disparity and racial segregation.[4]

In the 1950s, eminent domain, a process in which local redevelopment agencies condemned areas as "blighted" and seized properties from homeowners and tenants to facilitate demolition, severely undermined and led to drastic displacement in major centers of Black culture and community, such as West Oakland, in addition to other historic communities settled in the 19th century such as Chinatown. These communities were devasted in the 1950s and 1960s by the demolition and construction associated with freeways, Bay Area Rapid Transit (BART) facilities, and urban renewal. When neighborhoods were divided, families lost their homes, businesses closed, and neighbors left – all of which undermined a community's ability to thrive.[5]

4 Just Cities, East Oakland Displacement Status and Impacts from the BRT Project Summary: A Racial Equity Planning and Policy Justice Report for OakDOT's East Oakland Mobility Action Plan, June 2021, *https://drive.google.com/file/d/1sGCZt1uGPaFLroOm8BkGczV_vXOGsFTk/view*, accessed March 16, 2022.

5 Montojo, Nicole, Eli Moore, and Nicole Mauri. "Roots, Race, & Place: A History of Racially Exclusionary Housing in the San Francisco Bay Area." Berkeley, CA: Othering and Belonging Institute, 2019. *https://belonging.berkeley.edu/rootsraceplace#footnote197_73poucc*.

Spotlight: Urban Renewal in West Oakland

By 1958, the Oakland Planning Commission had declared that all of West Oakland was blighted. This action set the stage for the displacement and reconstruction of predominantly Black neighborhoods. Many West Oakland residents did experience poor housing conditions. However, these conditions directly resulted from systemic racism, disinvestment, and discriminatory lending practices that restricted access to home improvement and maintenance loans.[6]

In West Oakland alone, government agencies used eminent domain to build the West Oakland Bay Area Rapid Transit (BART) station, elevated tracks along 7th Street, three major interstate highways (the Nimitz/I-880, Grove Shafter/I-980, and MacArthur/I-580), and a sizeable postal facility. While the plans for the highways were designed by the State Department of Public Works, the Oakland City Council selected the exact routes. Clearing land for those projects destroyed entire blocks of homes and thriving commercial districts, displacing many residents and small business owners permanently.[7]

About 8,000 housing units were razed in West Oakland between 1960 and 1966, contributing to the displacement of nearly 14,000 low-income residents from this historic center of Black culture and community.[8]

6 Montojo, Nicole, Eli Moore, and Nicole Mauri. "Roots, Race, & Place: A History of Racially Exclusionary Housing in the San Francisco Bay Area." Berkeley, CA: Othering and Belonging Institute, 2019. *https://belonging.berkeley.edu/rootsraceplace#footnote197_73poucc*.

7 Ibid.

8 Brandi T. Summers, "Untimely Futures," Places Journal, November 2021. Accessed 02 Oct 2022. *https://doi.org/10.22269/211109*

While greater areas of East and North Oakland became open to Black, Hispanic/Latinx, and Asian families beginning in the 1950s, many of these same areas were experiencing disinvestment and deterioration of housing and public spaces, along with a massive loss of employment in nearby industrial sectors. This disinvestment led to innumerable abandoned and underutilized business properties along Oakland's main corridors, which suffered greatly as purchasing power fell and consumers, particularly wealthier white residents, went elsewhere to live and shop.

Lack of investment was Oakland's dominant economic story from the 1950s into the 1990s. Through waves of plant and store closures and redevelopment sites standing vacant for decades after demolition, the City searched for private investment wherever it could be found. Most of the major projects that were built, whether downtown high-rises or in transportation infrastructure, were led by the public sector. At the same time, disinvestment in Oakland's flatlands neighborhoods became apparent in the high levels of abandonment of single-family homes in the 1970s, deterioration of public housing developments, persistent redlining, and denial of loans or insurance in communities of color. This period of public and private disinvestment also reflected in communities' physical and social infrastructure—such as crumbling streets, under-resourced schools, lack of jobs, limited healthcare infrastructure, and increases in crime—alongside growing social unrest. Contemporary hardship and tensions escalated as serious health problems were sensationalized by the War on Drugs and the crack cocaine epidemic that disproportionately targeted Black Oaklanders.[9,10] During this period, resistance to oppression also shaped the city, and community groups born in the 1960s such as the Black Panther Party, Oakland Community Organizations (OCO), Unity Council, Intertribal Friendship House, and many others continued to organize and demand protections and equal access to jobs, housing, employment, transportation and services.[11]

Since the late 1990s, Oakland has seen an increase in real estate investment, which has had both positive and negative effects. In the years leading up to the 2008 housing crash and Great Recession, banks engaged in a process referred to as "reverse redlining" through which predatory lending practices and subprime loans were targeted in the same neighborhoods that were once marked as off-limits for borrowers.[12] This resulted in waves of foreclosures in East and West Oakland. A significant number of these foreclosed properties were then acquired by investors, and once-affordable and stable homes were flipped overnight into market-rate rentals.

An influx of private capital, partly due to efforts like the City's 10K Initiative to revitalize the urban core, has reinvigorated downtown and uptown.[13] At the same time, rising housing prices and a lack of new affordable options created waves of residential and commercial gentrification, especially in North and West Oakland and Chinatown, with a growing pattern of displacement in East Oakland.[14] Massive regional job growth, particularly in the technology sector, coupled with inadequate housing supply in other cities, sent waves of new residents to the East Bay in search of more affordable homes.[15] The impacts of the lack of regional housing supply rippled through other residential areas of the city, where communities of color faced greater vulnerability to rising housing costs than white residents.[16]

Types of Neighborhood Change: Gentrification and Displacement

The relationship between gentrification and displacement is complex.

Gentrification is a type of neighborhood change that occurs when new investments in a historically disinvested neighborhood lead to socioeconomic change.[17] When policies and community involvement adequately support the process, these investments can be a positive force of change such as more housing, increased home values for those who are able to be homeowners, and improved amenities like street trees and lighting that enhance safety and comfort in public spaces. Gentrification can also be a negative force, however, when the economic and cultural changes that come with gentrification make existing residents and local businesses unable to afford increased taxes or feel uncomfortable or unwelcome among new neighbors.

Displacement, or the forced relocation of residents and businesses,[18] can occur when lack of investment in sufficient housing in neighborhoods creates competitive pressure that leads new residents to displace existing ones rather than move into new homes. There are also different types of displacement, as explained by the Uprooted Project[19]:

- Direct displacement: Residents can no longer afford to remain in their homes due to rising housing costs or other actions like lease non-renewals, evictions, landlords not maintaining homes, etc.
- Indirect displacement: Units being vacated by low-income residents are no longer affordable to other low-income households (also known as 'exclusionary displacement').
- Cultural displacement: Changes in the aspects of a neighborhood that have provided long-time residents with a sense of belonging and allowed residents to live their lives in familiar ways.

9 King, Ryan. "Disparity by Geography: The War on Drugs in America's Cities." The Sentencing Project, 1 May 2008, *https://www.sentencingproject.org/wp-content/uploads/2016/01/Disparity-by-Geography-The-War-on-Drugs-in-Americas-Cities.pdf*

10 Fryer, Roland G. Jr., et al. "Measuring Crack cocaine and its Impact." Economic inquiry, Apr. 2006, scholar.harvard.edu/files/fryer/files/fhlm_crack_cocain_0.pdf

11 Zinn, Howard (2003). A Peoples History of the United States. Haper-Collins. P. 126-210. ISBN-0-06052842-7

12 "East Oakland Displacement Status and Impacts from the BRT Project Summary." n.d. Oakland: Just Cities. https://cao-94612.s3.amazonaws.com/documents/EOMAP-Appendix-2.pdf.

13 Ibid.

14 See generally Owens, Darrell, Discourse Lounge, "Where Did All the Black People in Oakland Go?", September 8, 2021. https://darrellowens.substack. com/p/where-did-all-the-black-people-in?utm_source=url, accessed February 21, 2022. See also City of Oakland, "Economic Trends and Prospects, Baseline Analysis for Oakland General Plan", Commute Trends and Workforce Characteristics, pp. 9-16. Access available at https:// https://cao-94612.s3.amazonaws.com/documents/Economic_Trends_Prospects_EPS_2022.06.02.pdf

15 Mitchell Schwarzer, Hella Town: Oakland's History of Development and Disruption (University of California Press, 2021).

16 "East Oakland Displacement Status and Impacts from the BRT Project Summary." n.d. Oakland: Just Cities. https://cao-94612.s3.amazonaws.com/documents/EOMAP-Appendix-2.pdf.

17 Urban Displacement Project, "What Are Gentrification and Displacement," 2021, https://www.urbandisplacement.org/about/what-are-gentrification- and-displacement/, accessed February 17, 2022.

18 Planetizen, "What is Displacement?" Planopedia, https://www.planetizen.com/definition/displacement, accessed February 21, 2023.

19 The Uprooted Project, University of Texas at Austin, https://sites.utexas.edu/gentrificationproject/gentrification-and-displacement-in-austin/, accessed December 16, 2022.

The direct and indirect displacement of residents, driven by the inequitable housing market, threatens not only households but the cultural identity and viability of existing communities. Nowhere has the impacts of these changes been more visible than on Oakland's streets, as homelessness increased 83 percent between 2017 and 2022 (from 2,761 to 5,055 individuals).[20] The Black/African American racial group has continued to be disproportionately represented, making up about 60 percent of all sheltered homeless individuals – nearly three times the proportion that Black/African Americans represent in Oakland's total population.[21] Although the individual causes for homelessness are complex, there are key structural reasons why Oakland has one of the worst homelessness crises in America, namely a catastrophic shortage of deeply affordable homes on top of salient issues including structural racism, unstable rental markets for tenants, systemic barriers to housing for the formerly incarcerated, a lack of living wage job opportunities, and inadequate mental health services.

From 2000 to 2019, Oakland lost nearly 30 percent of its Black population and significant numbers of long-time Asian communities residing in ethnic enclaves including Chinatown.[22] The COVID-19 pandemic has highlighted and exacerbated racial and economic disparities in housing security; the pandemic has also shown the public health outcomes of Oakland's housing disparities.[23] **Figures EJ-1** and **EJ-2** map the geographic change in racial and economic makeup of Oakland through time. It is noted that the definitions of race/ethnicity and measures of income have also changed to reflect social changes; these maps are limited to available data by census tract. **Figure EJ-1** shows how patterns of racial segregation have evolved, with increasing diversity along I-580, but have also maintained a majority-white concentration in the western Oakland hills and majority-non-white concentrations in the flatlands. This map also demonstrates how the makeup of communities of color have changed; majority Black neighborhoods in West and East Oakland (in blue) have turned majority Hispanic/Latinx (in orange) between 2000 and 2019, which is especially true in East Oakland. **Figure EJ-2** shows how median household income also follows a similar spatial pattern. The areas in light green represent neighborhoods with the highest income, which generally overlap with areas that have white majorities. In the same manner, areas with the lowest income shown in dark blue are generally clustered in West Oakland, San Antonio, and East Oakland. These patterns of inequity are further demonstrated by the disparity in current (2019) poverty level by race shown in **Figure EJ-3**.

20 EveryOne Home, Oakland 2022 Point-In-Time Count: Unsheltered & Sheltered Report, 2022, https://everyonehome.org/wp-content/uploads/2022/05/Oakland-PIT-2022-Infographic-Report.pdf, accessed December 16, 2022.

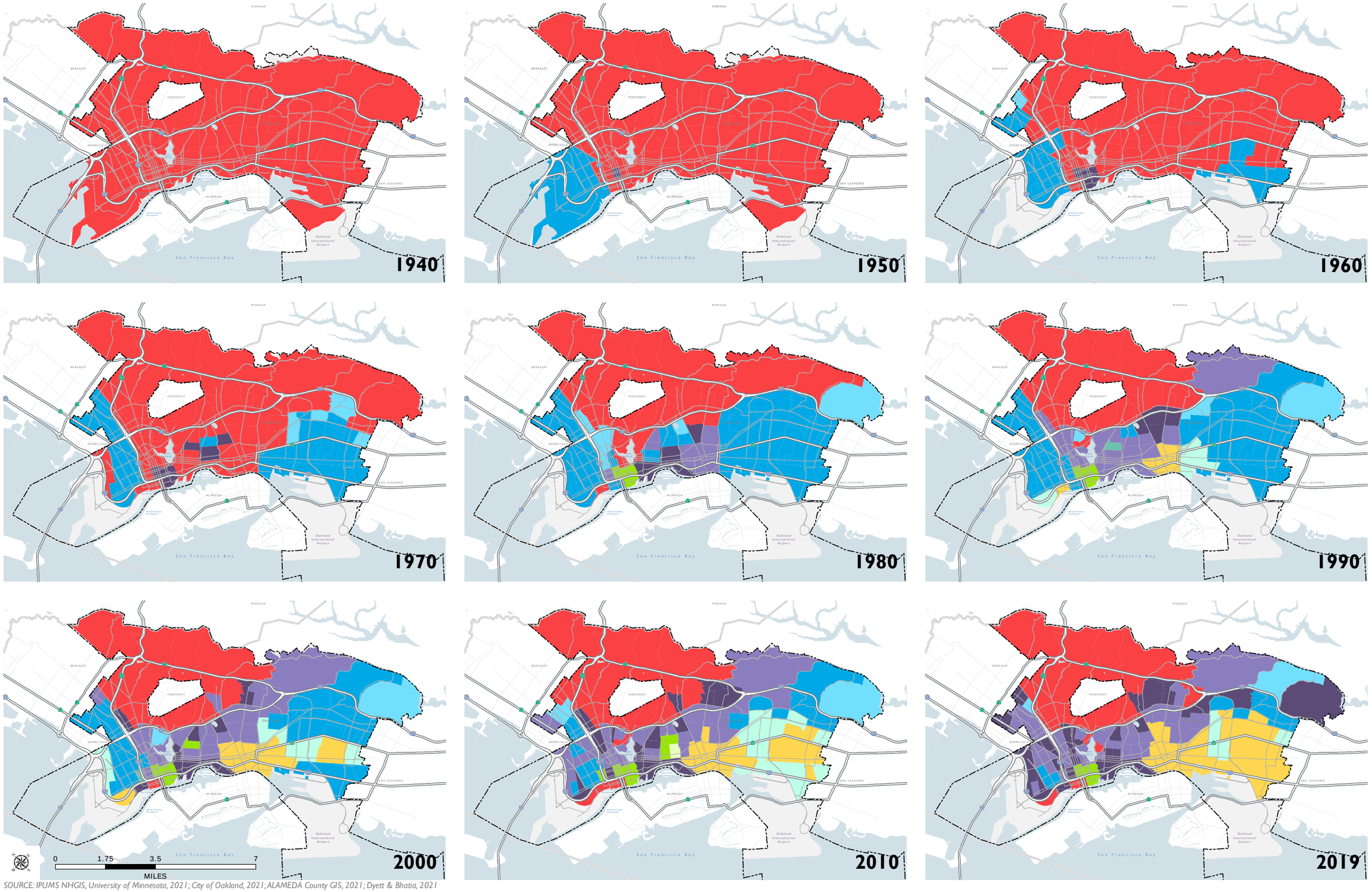
21 Ibid.

22 American Community Survey (ACS) (2014-2018); U.S. Census 2000, 2010; Urban Displacement Project, 2021.

23 "City of Oakland HCD 2021-2023 Strategic Action Plan City of Oakland Housing & Community Development Department 2021-2023 Strategic Action Plan." n.d. Accessed May 9, 2022. https://cao-94612.s3.amazonaws.com/documents/HCD.final.21-21Strategic-Plan.pdf.

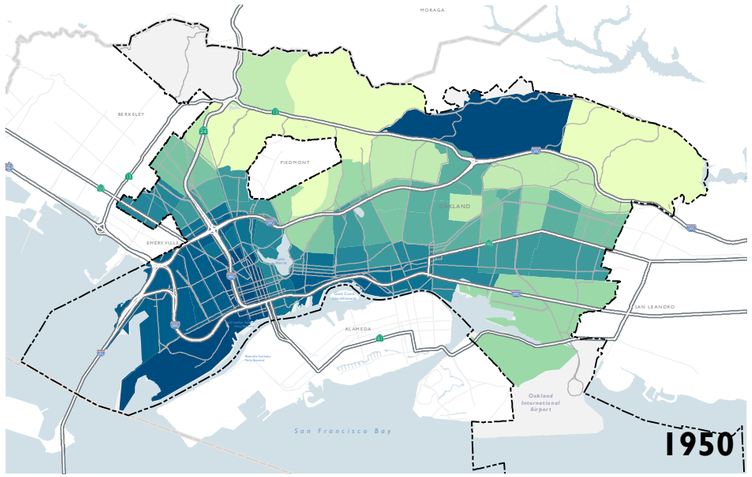
Figure EJ-1: Racial Concentration 1940-2019

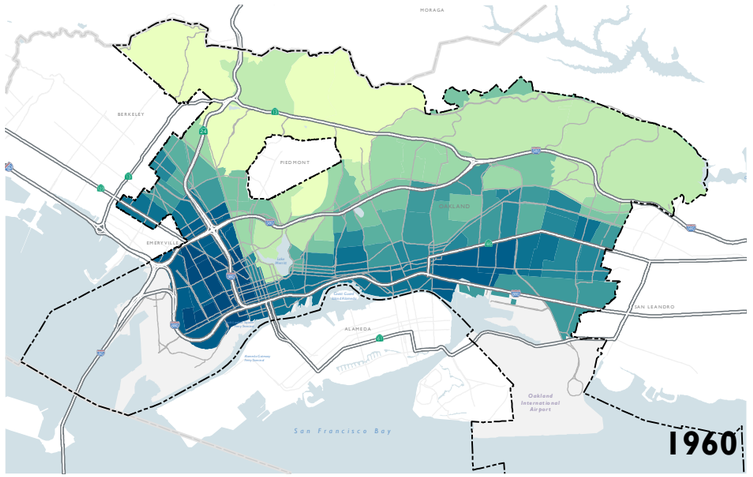
Notes: Historic Census Tracts from Decennial Census. All other features (e.g., streets, city limits) are as existing (2021). Asian/Pacific Islander and Hispanic/Latinx populations were not distinguished from "other" races until 1980, and Asian and Pacific Islander were not separated until 2000. Tracts mapped by racial plurality (majority or greatest proportion). Port of Oakland/OAK airport areas masked out from 1960 onwards as low population areas.

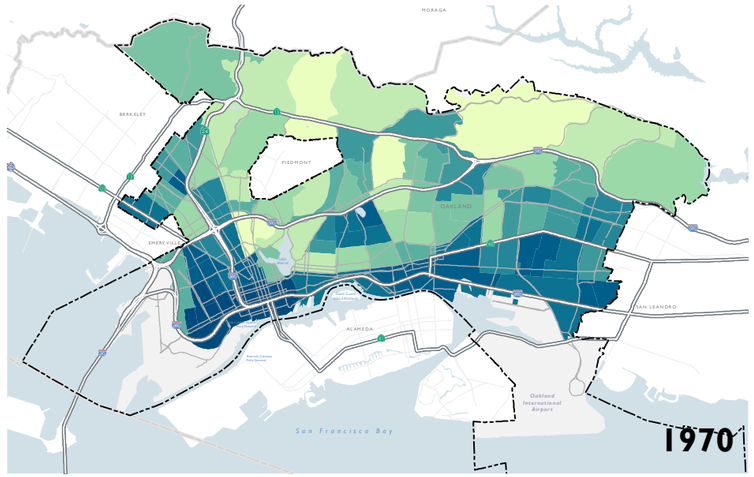


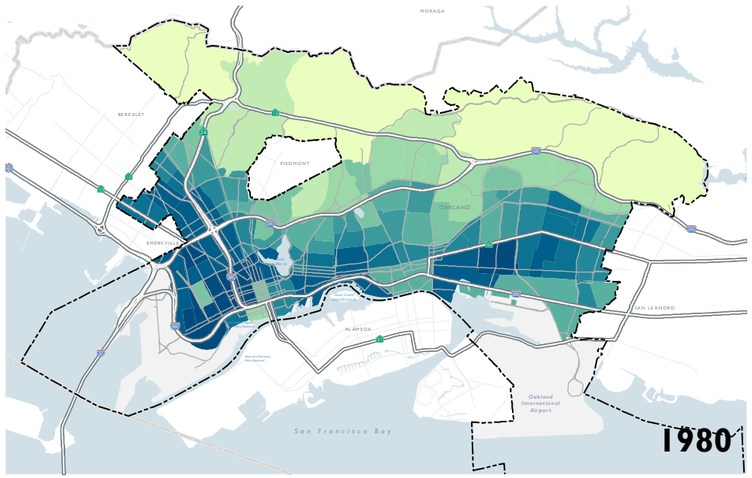
SOURCE: IPUMS NHGIS, University of Minnesota, 2021; City of Oakland, 2021; ALAMEDA County GIS, 2021; Dyett & Bhatia, 2021

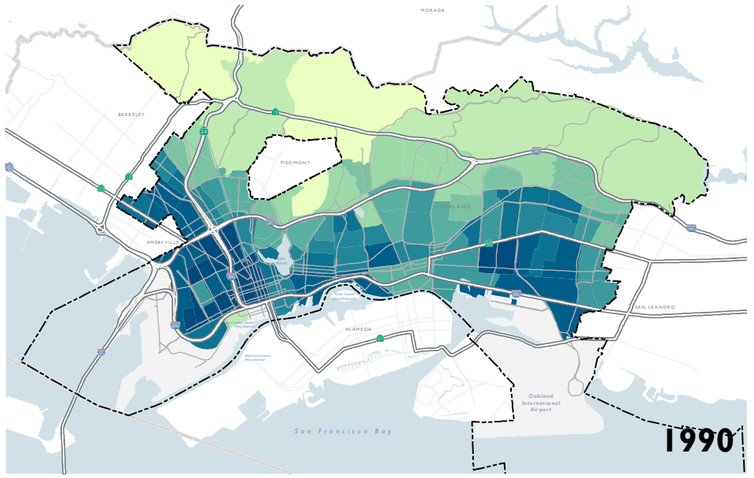
Figure EJ-2: Median Household Income 1940-2019

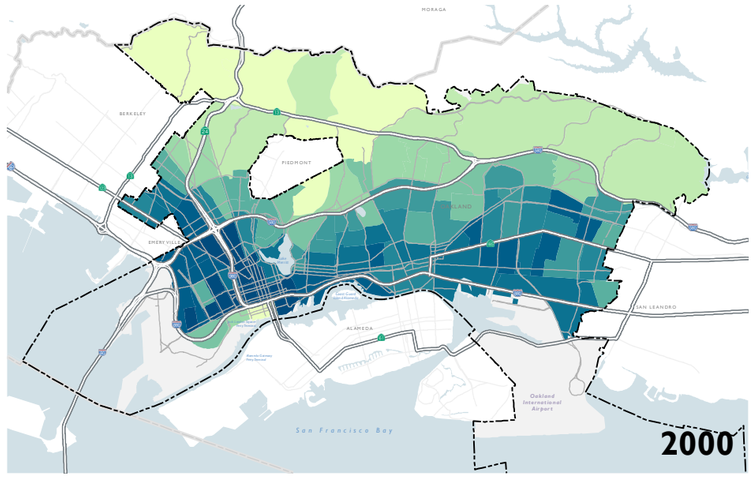


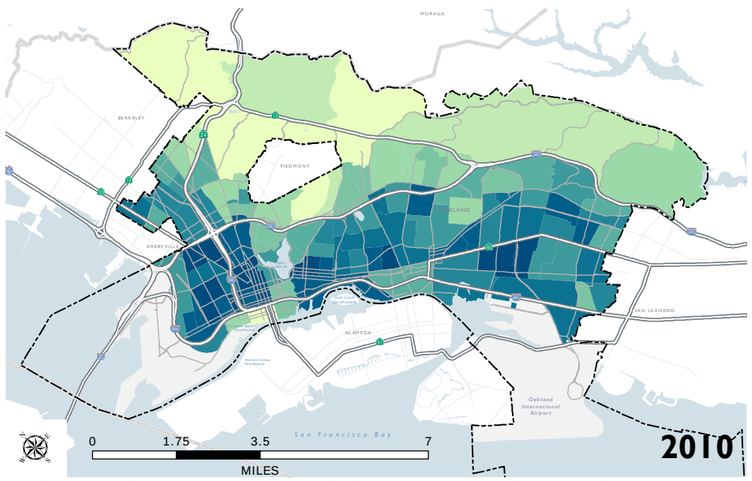


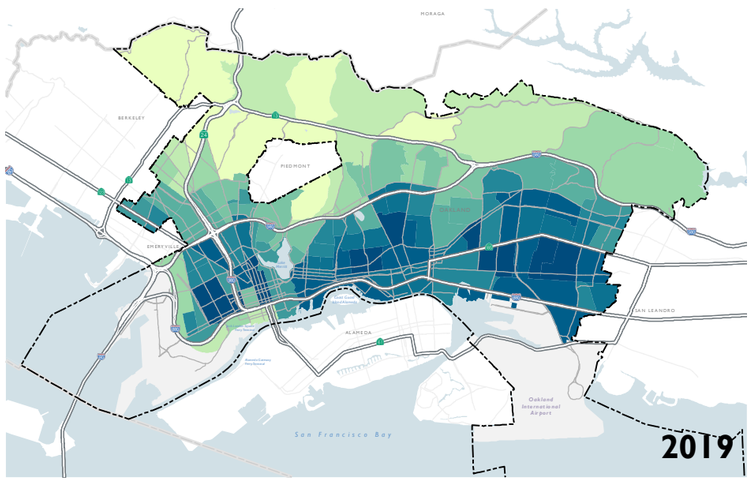












Distribution of Median Household Income*

Percentile Range

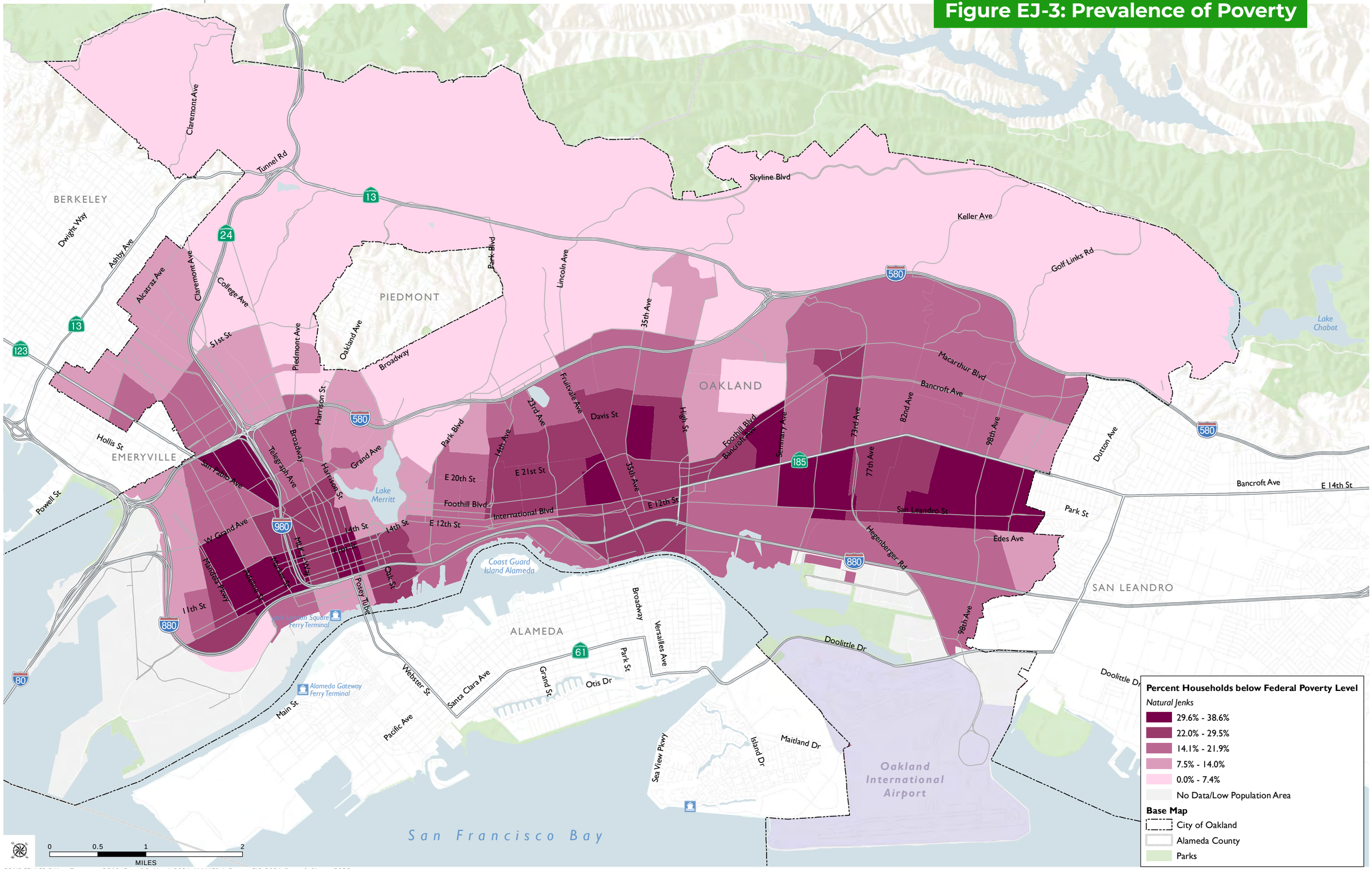
- Top 10% (Highest Income)
- 80-90%
- 70-80%
- 60-70%
- 50-60%
- 40-50%
- 30-40%
- 20-30%
- 10-20%
- 0-10% (Lowest Income)
- No Data/Low Population Area

**1960 and 1970 reflect average household (families and unrelated individuals) incomes rather than median due to data limitations.*

SOURCE: IPUMS NHGIS, University of Minnesota, 2021; City of Oakland, 2021; ALAMEDA County GIS, 2021; Dyett & Bhatia, 2021

Notes: Historic Census Tracts from Decennial Census. All other features (e.g., streets, city limits) are as existing (2021). Port of Oakland/OAK airport masked out from 1960 onwards as low population areas.

Figure EJ-3: Prevalence of Poverty



SOURCE: ACS 5-Year Estimates, 2019; City of Oakland, 2021; ALAMEDA County GIS, 2021; Dyett & Bhatia, 2022

2.2 LAND USE AND HEALTH

HEALTH INEQUITIES

"There is increasing recognition that the environments in which people live, work, learn, and play have a tremendous impact on their health. Re-shaping people's economic, physical, social, and service environments can help ensure opportunities for health and support healthy behaviors. [Because] health and public health agencies rarely have the mandate, authority, or organizational capacity to make these changes, … responsibility for the social determinants of health falls to … housing, transportation, education, air quality, parks, criminal justice, energy, and employment agencies."

*- **Adewale Troutman and Georges C. Benjamin**, American Public Health Association*

Health in All Policies: A Guide for State and Local Governments, 2013

Health inequities are differences in health outcomes "that are a result of systemic, avoidable, and unjust social and economic policies and practices that create barriers to opportunities."[24] As described the previous section, a history of structural racism has contributed to persistent inequities that are exacerbated by an increasing gap in social and economic inequalities.

Varying levels of access to opportunities and resources across neighborhoods, combined with disproportionate exposure to threats such as air pollution, soil contamination, traffic congestion, substandard housing, and increased social and generational trauma, comprise what SB 1000 refers to as "unique or compounded health risks." To a large extent, land use decisions determine how both environmental health threats and public health resources are distributed. For example, adjacent incompatible land uses, such as industrial and residential, can expose residents to higher levels of pollution and noise. Such proximity can increase the risk of asthma or other respiratory diseases, while constant, excessive noise can increase stress, anxiety, depression, high blood pressure, heart disease, and more.

24 Rudolph, L., Caplan, J., Ben-Moshe, K., & Dillon, L. (2013). Health in All Policies: A Guide for State and Local Governments. Washington, DC and Oakland, CA: American Public Health Association and Public Health Institute.

What are "unique or compounded health risks"?

A "health risk" is a hazard to human health. Some hazards (such as lead, asbestos, floods, and heat waves) may be dangerous enough to harm human health on their own. Other hazards are less acute on their own but become harmful when they coincide with other health risks. This is a compounded health risk.

Today, people are often exposed to multiple health risks, such as asbestos and air pollutants, while experiencing poverty and living in neighborhoods with poor access to fresh and affordable foods. These overlapping conditions are experienced more often by EJ Communities. The inequitable distribution of resources that promote health, coupled with the concentration of environmental pollution and other hazards, is what SB 1000 refers to as the unique or compounded health risks that impact EJ Communities.

The Link Between Racism and Poor Health Outcomes

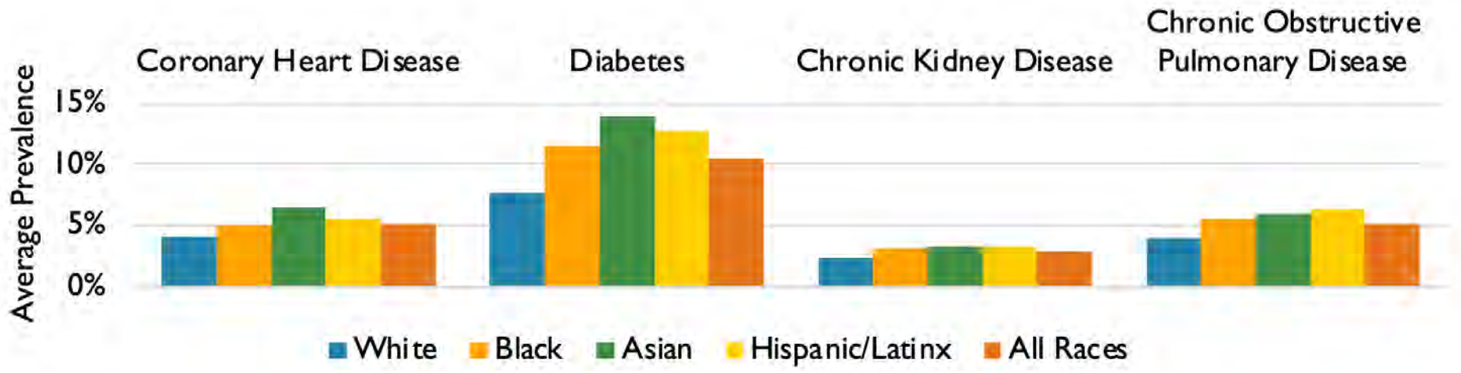
On June 7, 2022, the Oakland City Council adopted Resolution 89249 officially recognizing and declaring that "racism is a public health crisis in the City of Oakland and throughout the United States and the world." The Resolution also accentuated the City's commitment to address and alleviate the ongoing impacts of racism. In doing so, the City of Oakland joined the Centers for Disease Control and Prevention, the American Medical Association, and the American Public Health Association in explicitly recognizing racism as a threat to public health.

The Resolution reaffirms a growing body of research on the problematic relationship between systemic racism and the social determinants of health. Structural racism shapes the distribution and quality of the social determinants of health, such as housing, neighborhood conditions, income, employment, public safety, and education, which significantly impact individual and community health. Thus, racial and ethnic health disparities are primarily due to inequities in exposure to environmental risk factors and access to health-promoting resources rather than biological differences between racial groups.[25]

25 Introduced by City Attorney Barbara J. Parker, City Administrator Edward D. Reiskin, President Pro Tem Sheng Thao, and Councilmembers Carroll Fife, Treva Reid, and Loren Taylor. Resolution Declaring Racism a Public Health Crisis and Reaffirming the City's Commitment to Advancing Racial Equity., Resolution Number 89249 § (2022). https://oakland.legistar.com/LegislationDetail.aspx?ID=5648415&GUID=3302DDAA-B81D-44B8-A3FC-CA542C19B1D9&Options=&Search=.

As described in Section 2.1, a history of discriminatory policies and land use decisions has also shaped who lives where in the city, creating differences in health outcomes that are correlated with (or follow similar patterns to) race. **Chart EJ-1** shows how white populations have a much lower average rate of coronary heart disease, diabetes, chronic kidney disease, and chronic obstructive pulmonary disease than Black, Asian, and Hispanic/Latinx populations. In fact, the average incidence of these health outcomes for white people is lower than the population-wide average, while Black, Asian, and

Chart EJ-1: Citywide Differences in Health Outcomes by Race, 2020



Hispanic/Latinx populations experience higher rates than the citywide average. These findings are also supported by data from the Alameda County Public Health Department (ACPHD), which show that there are racial disparities in health outcomes for cancer-related deaths, rate of low-birth-weight infants, and life expectancy at birth.

These factors, along with others, affect life expectancy overall based on geography: data from the Alameda County Public Health Department (ACPHD) show a nearly 20-year difference between the Oakland census tract with the highest and lowest life expectancy at birth. As shown in **Figure EJ-4**, tracts in East Oakland generally have lower life expectancies, and the tracts with the lowest life expectancies are Fitchburg/Hegenberger and Brookfield Village, both at less than 72 years – more than 10 percent lower than the citywide average.

HOW PLANNING AND LAND USE IMPACT HEALTH

Land use regulation is an essential determinant of health because it shapes the physical environment of neighborhoods, and in turn, can expand or restrict access to opportunities for everyday physical activity, healthy foods, economic growth, social connections, and more. Further, the protection of residents' public health, safety, and welfare is the legal basis for land use regulation.

The section below summarizes how land use planning and the built environment influence health outcomes.

Reducing Pollution Exposure, Improving Air Quality

In virtually every community, people may be exposed to pollution daily through direct contact with air, food, water, and soil contaminants. This is especially true for those who live near highly polluting land uses. Certain types of pollution exposure disproportionately impact those with higher risk factors such as age or underlying health conditions. Socioeconomic conditions that increase stress, decrease access to health care, or make healthy living difficult further compound the adverse health effects of pollution. In times of growing wildfire threat, smoke is another burden added to existing pollution.

Exposure to multiple sources of pollution, such as freeway traffic, the Port, and industrial sites, disproportionately burden many EJ Communities in Oakland. These communities are also on the front lines facing the challenges associated with adapting to the impacts of climate change. Identifying the sources, types, and quantities of pollution across Oakland neighborhoods, as well as their change over time, is essential to determine the best solutions.

Promoting Safe and Healthy Homes

Many homes in Oakland, particularly in lower-income areas where renovations have either not occurred or are substandard, are likely to contain lead-based paint, mold, mildew, asbestos, unvented biproducts of methane ("natural") gas combustion, and other toxic materials. These conditions put adults and children at risk of conditions including lead poisoning and asbestosis, which can result in lifelong detrimental health impacts. Despite the risks, many low-income families cannot afford to move out of or remediate these conditions.

Housing location is as impactful as structural conditions. For example, proximity to pollution sources, such as freeways or industrial facilities, worsens indoor air quality. In addition, some housing may not have adequate access to economic opportunities or public services and facilities.

Promoting Healthy Food Access

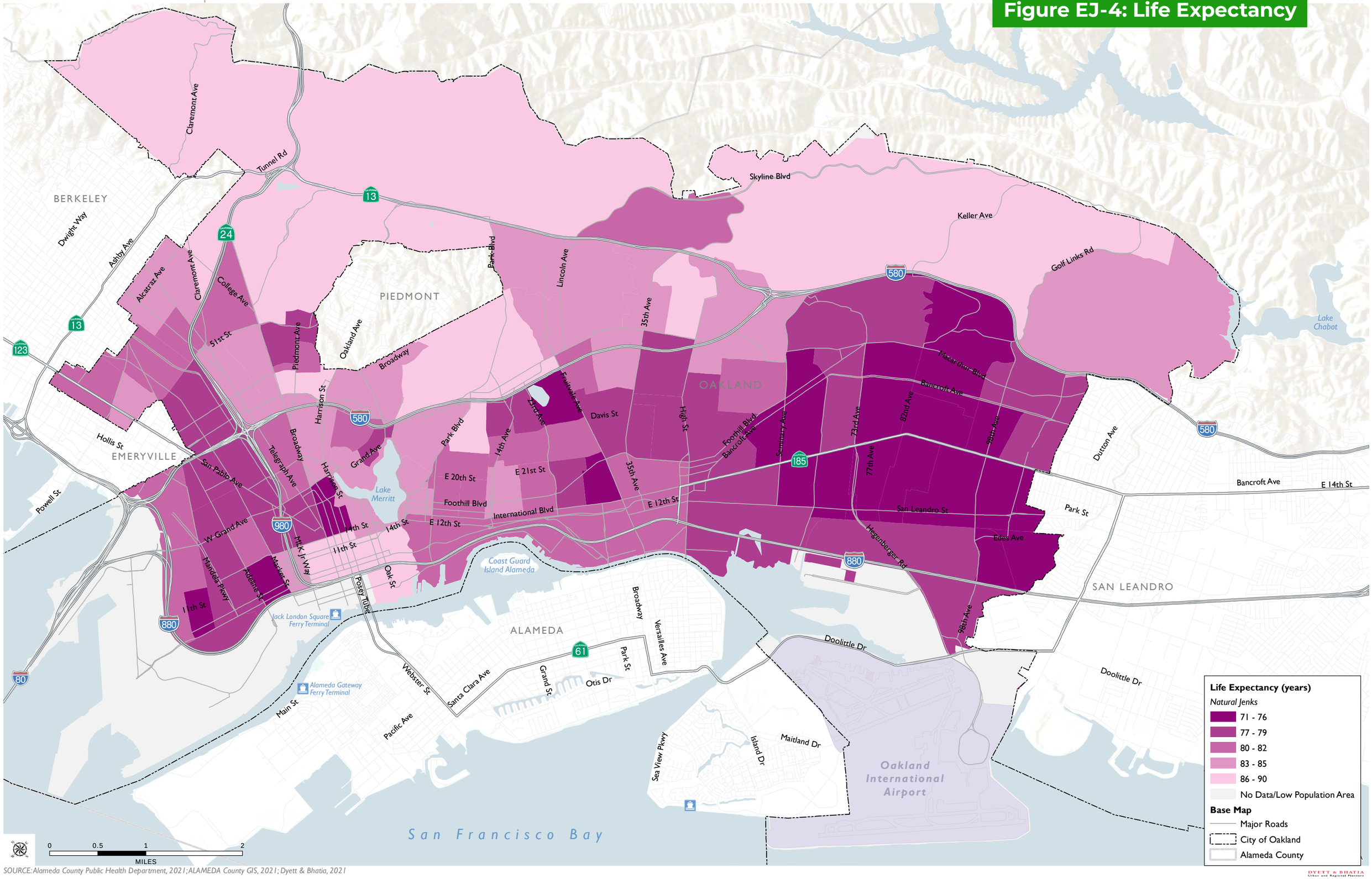
Food access refers to a person's ability to access nutritionally adequate, culturally appropriate, and affordable food. Having a sufficient income to purchase healthy food and the proximity or ability to travel to a food source that offers nutritionally adequate, culturally appropriate, and affordable food are essential elements of equitable access.

Promoting Physical Activity

Differences in the quality of and access to safe and well-maintained places to walk, play, and exercise in Oakland's communities lead to a range of adverse health outcomes. Land use choices that do not consider how far jobs, parks, schools, healthy food resources, and other community facilities are from neighborhoods can result in increased reliance on cars and less active transportation, which in turn contributes to higher rates of diabetes, obesity, and heart disease.

Environmental justice policies must promote physical activity and address the equitable distribution of active transportation (i.e., pedestrian and bicycle) networks and the distribution of parks, open spaces, and urban green spaces.

Figure EJ-4: Life Expectancy



SOURCE: Alameda County Public Health Department, 2021; ALAMEDA County GIS, 2021; Dyett & Bhatia, 2021

Promoting Public Facilities

Many EJ Communities in Oakland do not have adequate access to a wide range of essential facilities such as libraries, health centers, or parks. If the facilities exist, they may be neglected or in poor conditions, creating safety hazards.

SB 1000 refers to "public facilities" as "public improvements, public services, and community amenities." These may include transit facilities, public restrooms, parks, open spaces, health centers and clinics, schools, daycare centers, libraries, museums, community centers, community facilities, and recreational facilities (such as senior or youth centers).

Civic Engagement/Reducing Barriers to Inclusive Engagement and Participation

Ensuring that all community members—especially those most impacted by environmental pollution and other hazards—can meaningfully participate in any civic decision-making process is key to planning for environmental justice.

Creating accessible and culturally appropriate opportunities for low-income, underrepresented, and linguistically isolated stakeholders to engage in local decision-making will help identify and resolve EJ issues.

Prioritizing Improvements and Programs in EJ Communities

Environmental justice seeks to improve the environmental health of those most harmed by pollution burdens by intentionally investing in the most impacted communities to create opportunities for their residents to live long, healthy lives.

EJ Communities may have specific needs requiring singular actions to ensure that existing conditions are improved and not exacerbated. In addition, effective prioritization would ensure that policies and programs benefiting EJ Communities are implemented promptly.

Lastly, prioritizing improvements and programs for EJ Communities may also help the City access public funding dedicated to benefitting EJ Communities.

2.3 IDENTIFYING ENVIRONMENTAL JUSTICE COMMUNITIES

PURPOSE AND DEFINITION

Environmental Justice (EJ) Communities (referred to as "disadvantaged communities" in SB 1000) are low-income areas that are disproportionately impacted by environmental pollution and other hazards that can lead to adverse health effects. EJ Communities are eligible for special funding considerations, as well as targeted environmental justice efforts and investments. EJ Communities should also be recognized by the City and uplifted in order to equitably allocate opportunities and resources.

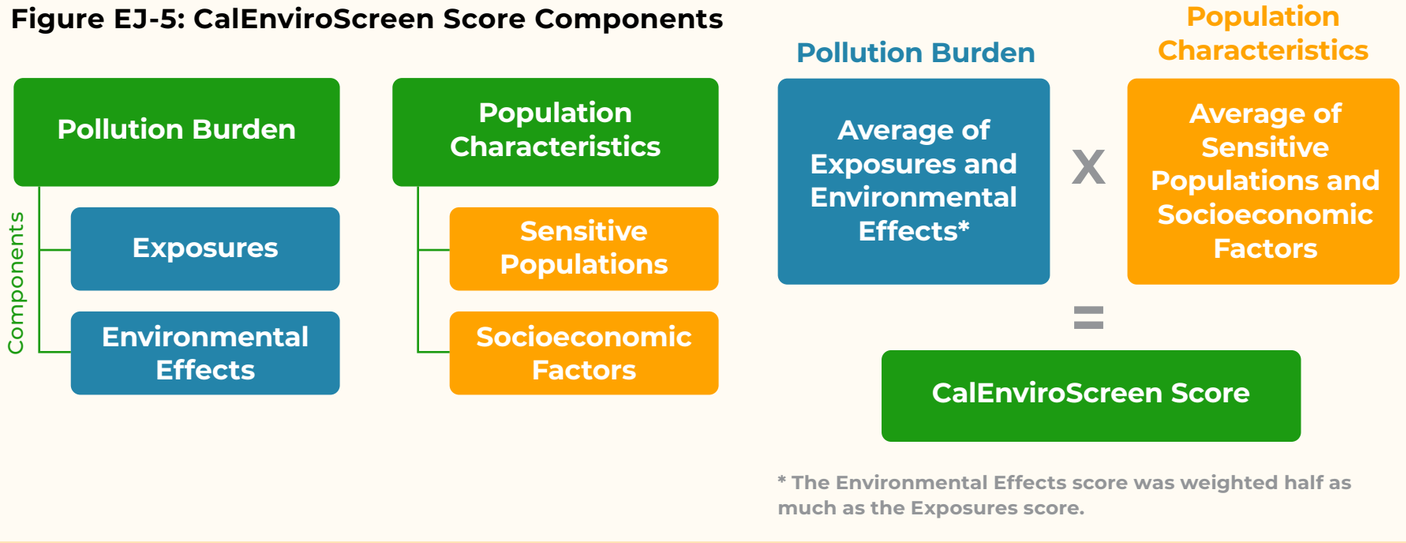
State law (SB 1000) requires jurisdictions to identify EJ Communities. This can be as simple as identifying the census tracts that the State designates pursuant to SB 535, which relies on the CalEnviroScreen methodology developed by the California Environmental Protection Agency Office of Environmental 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 take this second approach to identifying EJ Communities.

CalEnviroScreen

The California Communities Environmental Health Screening Tool, or CalEnviroScreen, is a mapping tool developed by CalEPA's Office of Environmental Health Hazard Assessment (OEHHA) to help identify California communities that are disproportionately burdened by multiple sources of pollution. Last updated in October 2021, the methodology currently uses 21 indicators measuring cumulative pollution burden and population characteristics that make communities particularly vulnerable to pollution. As illustrated below, each of the indicators fall under one of four components that are grouped, weighted, and combined to calculate the final CalEnviroScreen score.

The overall CalEnviroScreen score is often used to describe the interaction between cumulative pollution burden and population vulnerability, but each of the indicators that make up the score are also important pieces of information. Some of these topics are mapped and discussed in this Element to show how individual EJ issues affect communities throughout Oakland.

Figure EJ-5: CalEnviroScreen Score Components



* The Environmental Effects score was weighted half as much as the Exposures score.

METHODOLOGY

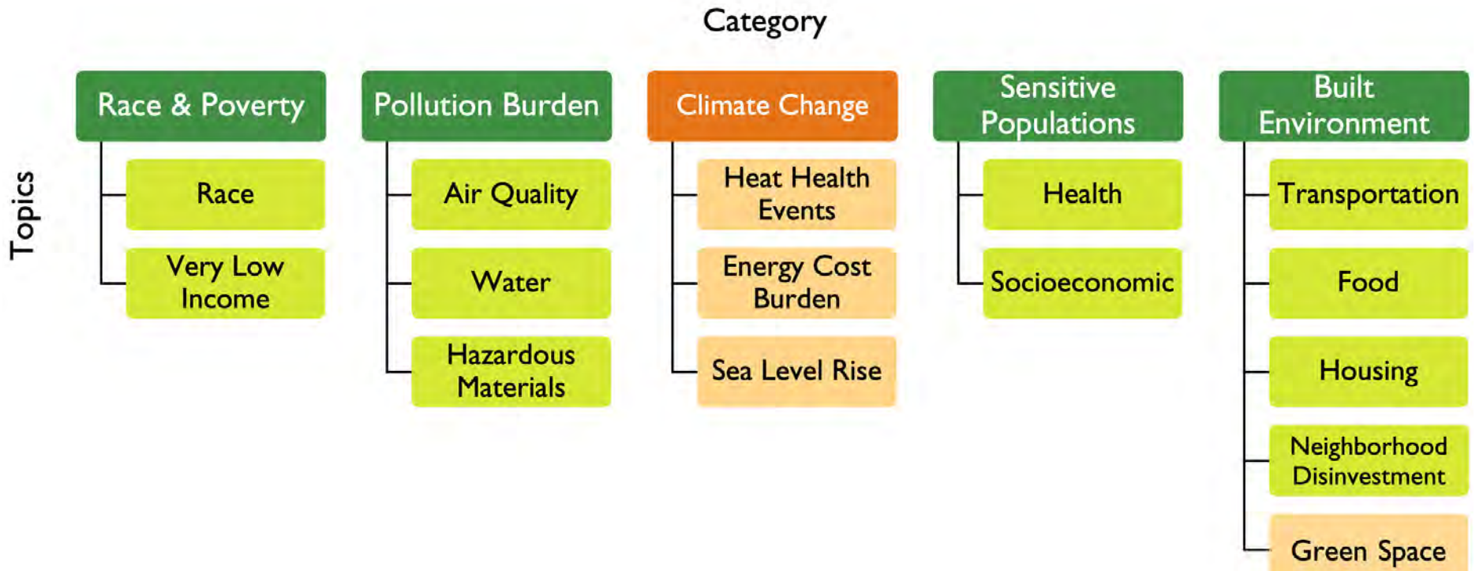
[Note: This section has been written from the perspective of the final EJ Element. The EJ Communities Screening methodology will continue to be receptive to feedback gathered during the Public Review Draft period, and this section will be updated as the resulting EJ Communities Map is updated.]

The first step in the process of identifying and mapping Oakland's EJ Communities began with the EJ Baseline Report. In line with State law requirements and objectives, the EJ Baseline Report included a preliminary screening analysis that evaluated whether low-income areas are disproportionately affected by environmental pollution and other hazards that can lead to adverse health effects, exposure, or environmental degradation. It does this by broadly analyzing possible disproportionate burdens according to all topic areas required by SB 1000. The screening analysis also considers issues unique to Oakland, such as illegal dumping, and issues not reflected in CalEnviroScreen, such as local vulnerability to climate change and redlining.

As mentioned, the preliminary screening analysis combined a series of indicators, or quantitative metrics that evaluate environmental justice issues, to identify disproportionate impacts across each of the eight SB 1000 topic areas: (1) pollution exposure, (2) public facilities, (3) food access, (4) safe/sanitary homes, (5) physical activity, (6) unique/compounded health risks, (7) civic engagement, and (8) prioritization of environmental justice communities' needs. From there, each of the indicators were scored using a methodology that ranks all 113 census tracts in the City from highest (1.00, representing the most burdened) to lowest (0.00, representing the least burdened). This is referred to as a "percentile ranking" because the relative rank of each tract corresponds with a composite score on a scale of 0.00 (0 percent, or 0th percentile) to 1.00 (100 percent, or 100th percentile). By calculating the relative ranks/scores, this methodology is suitable for highlighting the places that are comparatively most burdened by environmental justice issues in the City.

The preliminary methodology from the EJ Baseline Report used 50 indicators grouped into four categories: race and poverty, pollution burden, sensitive populations, and built environment. Each category is made up of two to four topics, as illustrated in green below. Revisions to the preliminary methodology are shown in orange and are discussed in the following section.

Figure EJ-6: Structure of EJ Communities Screening Indicators



Note: Climate Change was a topic under the Pollution Burden category in the preliminary methodology but has been revised as a separate category in the updated methodology.

Individual indicator scores were calculated using the percentile ranking methodology described above. Topic scores are calculated from the sum of the individual indicators that make up the topic. For example, the Water topic is comprised of the Groundwater Threats and Impaired Water Bodies indicators, which are added together and translated into another percentile score for Water. The same process is repeated at the topic-level to calculate category scores, and category scores are combined using this method to calculate the overall composite score. In other words, each level of the hierarchy "rolls up" to the final composite score. Finally, this score was used to identify the top 25 census tracts with the highest cumulative burden scores as potential EJ Communities in the EJ Baseline Report.

An initial REIA assessed this methodology, highlighted gaps in the analysis, and provided recommendations for improvement. The final methodology used to identify EJ Communities in this Element has consequently been refined based on these recommendations, including the removal, addition, and adjustment of indicators to better align them with a focused set of selection guidelines, including the following considerations:

- 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?

The final methodology includes 53 indicators, maintaining many of the same categories and topics as the preliminary screening analysis. Since the Baseline Report, the following changes have been made to the set of indicators which include revisions in response to REIA recommendations:

- The following indicators have been replaced:
  - **Low-Income Area Indicators.** The preliminary screening analysis included low-income area indicators that aligned with State definitions of "low-income areas." These categorical indicators undermined the percentile ranking system used to compare Oakland's census tracts because of the limited number of categories. In other words, areas with similar median household incomes all received the same score even if the proportion of low-income households differed. The new low-income indicator was created to better illustrate the concentration of low-income households in each census tract. The new indicator measures the percentage of households making less than 30 percent of the U.S. Department of Housing and Urban Development (HUD) Area Median Family Income (HAMFI).[26]
  - **Asthma Indicators.** The preliminary analysis included two indicators for asthma: a "Pediatric Asthma Attributable to Nitrogen Dioxide (NO2)" indicator and a "Rate of Adult Asthma" indicator. The former indicator was sourced from the West Oakland Environmental Indicators Project (WOEIP) and Environmental Defense Fund (EDF) partnership studying hyperlocal air quality in West Oakland.[27] The latter indicator was sourced from the National Centers for Disease Control and Prevention (CDC) PLACES dataset. To more comprehensively capture the health impacts of air pollution on asthma outcomes for all ages, the updated analysis replaced these two indicators with "Asthma Emergency Department Visits" data from CalEnviroScreen (version 4.0). It is noted that hyperlocal data is used in the screening analysis when the data is currently available and complete for the entire city. The indicator "Mortality Attributable to NO2" (within the Health topic) is one such hyperlocal indicator.
  - **Urban Heat Island Indicators.** The preliminary screening analysis included an "Urban Heat Island Index" indicator developed by California Environmental Protection Agency (CalEPA) in 2015. To use a more locally specific dataset for a period relevant to the 2040 General Plan, the updated analysis replaced this with an indicator on "Projected Average Maximum Temperature during Future Heat Health Events" from the California Heat Assessment Tool (CHAT). The CHAT was developed as part of California's Fourth Climate Change Assessment published in 2018. The new indicator is a more understandable metric over which the City has direct influence through changes to the built environment.
  - **Park Access.** The preliminary analysis measured low park access as the percentage of population that is not within a 10-minute walking distance of a park. This indicator was revised to account for updated information regarding park access such as including regional parks and removing parks that are closed or not publicly accessible. In addition, the updated indicator is more spatially precise because it measures the number of housing units by parcel that are located outside a 10-minute walking distance of publicly accessible, open parks instead of estimating the percentage of population by census block group. See Appendix A for full data dictionary and more information about data sources.
- The following indicators have been added:
  - **Proximity to Industrial Zones.** Represents how close certain communities live to industrially zoned areas, which are common sources of pollution.
  - **Proximity to Farmers' Markets.** Measures how far communities live from farmers' markets, which can be an alternative source of food as well as a cultural asset through its function as a community gathering space.
  - **Proximity to Existing Community Gardens.** Measures distance to the closest community garden, which not only serves as a local food source but also helps provide access to green spaces in the city.
  - **Energy Cost Burden.** Measures how much of their income a household spends on energy costs. It represents vulnerability to the impacts of climate change, which can increase energy costs such as greater need for air conditioning as temperatures increase.
  - **Extreme Commutes.** Measures the percentage of workers whose commutes are 90 minutes or longer. It represents a low-level of jobs-housing fit (lack of affordable housing near jobs) as well as increased transportation burden.
  - **Incomplete Plumbing or Kitchen Facilities.** Measures the percentage of households that lack complete plumbing or kitchen facilities. Both of these indicators are used by HUD as a proxy for substandard housing conditions.
  - **Free or Reduced Price Meals (FRPM).** Measures the proportion of students enrolled at each school receiving FRPM, representing food insecurity.
- The following indicators and topics have been restructured:
  - **Redlining.** The Redlining indicator, previously under the Neighborhood Disinvestment topic of the Built Environment category, has been moved to the Race topic in the Race and Poverty category. Because the Race topic has fewer indicators than Neighborhood Disinvestment contributing to its score, moving Redlining into Race places greater weight to the indicator – meaning that it has more impact on the overall composite score.

26 Every year, HUD sets income limits that determine eligibility for assisted housing programs such as Section 8 Housing Choice Voucher. These income limits are based on HUD's estimates for Median Family Income and Fair Market Rent area definitions for each metropolitan area, parts of some metropolitan areas, and each non-metropolitan county.

27 Hyperlocal data used in this study uses measurements taken by a car equipped with an air monitoring sensor that was driven along certain roads in West Oakland, East Oakland, and freeways in Oakland in 2017. Due to data gaps for areas that were not included in the routes (such as the Oakland hills), citywide comparisons cannot be made for this EJ screening analysis.

- **Climate Change.** The Climate Change topic was promoted to a category, independent of the Pollution Burden category. The methodology now accounts for five distinct, equally weighted categories rather than four.
- **Green Space.** The indicators for Park Access and Lack of Tree Canopy were grouped into a new topic, outside of the Neighborhood Disinvestment topic, but still part of the Built Environment category.
- **Toxic Releases.** This indicator was moved from the Hazardous Materials topic to the Air Quality topic (both within the Pollution Burden category) after closer review of the CalEnviroScreen 4.0 measure for toxic releases from facilities, which measures the extent to which facilities that make or use toxic chemicals can release these chemicals into the air.
- **Lead Exposure.** This indicator was moved from the Air Quality topic (Pollution Burden category) to the Housing topic (Neighborhood Disinvestment topic, Built Environment category) after closer review of the CalEnviroScreen 4.0 measure for children's lead risk from housing, which estimates the percentage of low-income households with children in older housing structures that have a higher likelihood of containing lead-based paint hazards.

Other revisions made in response to REIA recommendations include "flipping" some indicators, including Life Expectancy, Median Household Income, Active Commutes, and Community Facilities so that they measure negative outcomes. **This means that higher scores indicate greater burden/impact for all indicators.** Additionally, the evictions indicator was revised to measure the number of evictions per renter rather than for all residents to better control for areas that are predominantly owner-occupied.

A few indicators were removed entirely from the EJ Communities screening methodology: Distance to Healthcare Facilities and Lack of Vehicle Ownership. Distance to Healthcare Facilities was omitted because of the complexity of factors that contributed to its anomalous outcomes. In particular, tracts with the farthest distances to healthcare facilities were predominantly located in the Oakland hills, which tend to have higher median incomes, less populations of color, and lower rates of negative health outcomes. Rather, the geographic distribution of low-density neighborhoods increases distances to services such as healthcare facilities that are generally located closer to civic centers like Downtown. Moreover, inequitable access to healthcare is often impacted by financial rather than geographic barriers. For example, mapping lack of health insurance generally aligns with patterns of poor health outcomes (according to the CDC's PLACES dataset), both of which have higher values in lower-income areas despite nearby health facilities. Similarly, the Lack of Vehicle Ownership indicator was initially revised to measure households that do not own two or more vehicles (i.e., own zero or only one vehicle) to help account for voluntary lack of vehicle ownership, which tends to occur in places well-served by transit such as Downtown; however, this metric was ultimately removed due to its interdependence with transit access and in light of the City's climate objectives to reduce reliance on driving. Nevertheless, inclusion of certain indicators over others does not preclude them as issues that should be considered in the EJ Element. The Element explores a robust range of topics that are all assessed in combination with the findings of the EJ Communities mapping process. Ultimately, this approach allows the EJ Element to serve as the keystone and guiding resource for integrating environmental justice in the General Plan, especially for elements that will be prepared in subsequent phases (as noted in Section 1.1).

After calculating scores for all 53 indicators and combining these into the topic, category, and overall composite score, criteria and cutoff thresholds were applied to determine which census tracts are formally identified as EJ Communities. These criteria and thresholds have been informed by the REIA. Similar to the CalEnviroScreen methodology, which identifies the most impacted communities as those in the top 25th percentile of census tracts statewide, the EJ Baseline Report identified preliminary EJ Communities as the top 25 highest-scoring census tracts in Oakland (corresponding to the top 22nd percentile in the city) by overall composite score. Community input voiced concerns that this initial approach did not capture enough areas to reflect the on-the-ground conditions and lived experiences of the most impacted and burdened communities in the city. Based on this feedback and recommendations from the REIA, the number of identified EJ Communities has increased from 25 census tracts to 48 census tracts, based on the following, in order of consideration:

1. Is the census tract among the top 25th percentile of overall composite scores (i.e., greater than or equal to 0.75)?
2. Is the census tract among the top 10th percentile of any of the category scores (i.e., scoring 0.90 or higher for Race/Low Income, Pollution Burden, Climate Change, Sensitive Population, or Built Environment)?
3. Is the census tract designated as a Disadvantaged Community per SB 535?

If any of these criteria are met, the census tract is included in the final list of EJ Communities, presented in the next section.

RESULTS

As summarized in **Table EJ-2**, there are 48 total census tracts that have been identified as EJ Communities in the City of Oakland: 29 are in the top 25th percentile by composite score, 12 additional census tracts are in the top 10th percentile of any one of the category scores, and seven additional census tracts have lower scores, but are designated by CalEPA as SB 535 Disadvantaged Communities (as of May 2022). These census tracts are mapped on **Figure EJ-7**.

Among EJ Communities, the top contributing category is Sensitive Populations, for which there are 26 census tracts that score among the top 25th percentile, and the average score is 0.74. Meanwhile, the individual indicators that have the greatest number of EJ Communities scoring in the top 25th percentile include Very-Low Income (26 tracts, 0.734 average), Proximity to Industrial Zones (26 tracts, 0.729 average), and Lack of Health Insurance (23 tracts, 0.731 average).

While the purpose of the screening tool is to identify the most cumulatively burdened census tracts, each indicator on its own reveals geographic disparities. Each section of this Element lists the neighborhoods (by census tract) that score in the top decile for related indicators, and EJ Communities included among these neighborhoods are prioritized for related City action and investment.

A full table of scores for each indicator is included in **Appendix A**.

Table EJ-2: Environmental Justice Communities Summary

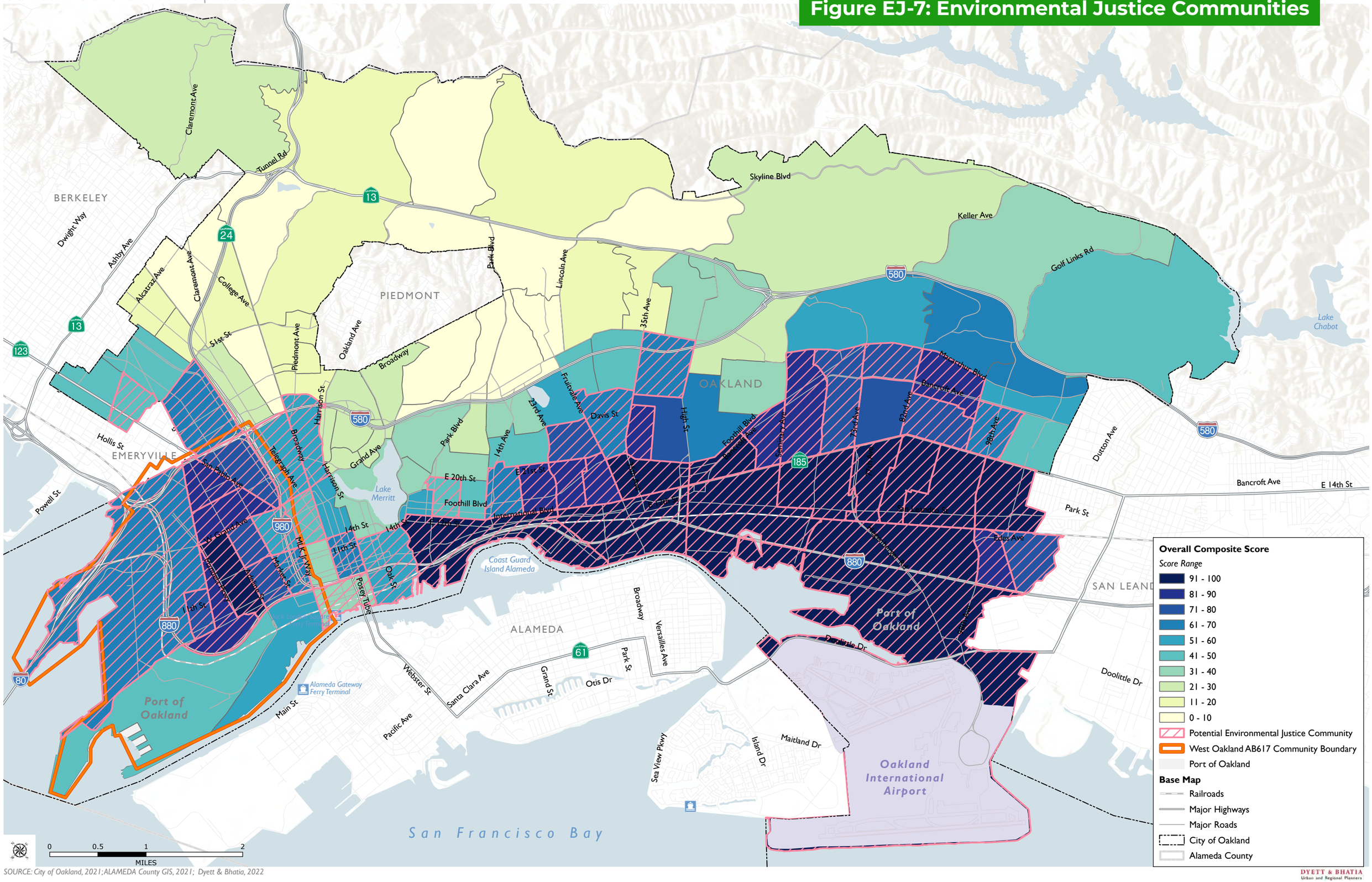
CENSUS TRACT NAME	EJ COMMUNITY CRITERIA[1]	CATEGORY SCORE					
		Composite Score	Race & Poverty	Pollution Burden	Climate Change	Sensitive Population	Built Environment
Lockwood/ Coliseum/ Rudsdale	Top 25% Composite	**1.00**	1.00	0.88	0.97	1.00	0.79
Fitchburg	Top 25% Composite	**0.99**	0.93	0.79	0.96	0.98	0.91
Brookfield Village/ Hegenberger	Top 25% Composite	**0.98**	0.68	0.96	0.94	0.99	0.92
Melrose	Top 25% Composite	**0.97**	0.85	0.93	1.00	0.56	0.98
New Highland	Top 25% Composite	**0.96**	0.96	0.70	0.96	0.96	0.75
Jingletown/ Kennedy	Top 25% Composite	**0.96**	0.80	0.97	0.99	0.66	0.84
Fremont District	Top 25% Composite	**0.95**	0.77	0.62	0.95	0.85	0.95
Oakland Estuary	Top 25% Composite	**0.94**	0.79	0.98	0.71	0.71	0.86
Elmhurst	Top 25% Composite	**0.93**	0.97	0.66	0.41	0.95	1.00
DeFremery/Oak Center	Top 25% Composite	**0.92**	0.96	0.85	0.84	0.91	0.43
Stonehurst	Top 25% Composite	**0.91**	0.98	0.58	0.46	0.94	0.94
Fruitvale	Top 25% Composite	**0.90**	0.82	0.71	0.90	0.76	0.67
Clawson/Dogtown	Top 25% Composite	**0.89**	0.61	0.90	0.98	0.75	0.61
Seminary	Top 25% Composite	**0.88**	0.95	0.49	0.47	0.89	0.99
Reservoir Hill/ Meadow Brook	Top 25% Composite	**0.88**	0.88	0.54	0.86	0.80	0.68
Fruitvale/ Hawthorne	Top 25% Composite	**0.87**	0.71	0.72	0.82	0.86	0.60
Prescott/Mandela Peralta	Top 25% Composite	**0.86**	0.63	0.87	0.83	0.59	0.76
Brookfield Village	Top 25% Composite	**0.85**	0.54	0.77	0.50	0.88	0.97
McClymonds	Top 25% Composite	**0.84**	0.69	0.89	0.78	0.61	0.70
Sobrante Park	Top 25% Composite	**0.83**	0.62	0.75	0.88	0.65	0.73
Bancroft/ Havenscourt West	Top 25% Composite	**0.82**	0.67	0.31	0.81	0.92	0.89
Harrington/ Fruitvale	Top 25% Composite	**0.81**	0.86	0.45	0.92	0.74	0.63
Castlemont	Top 25% Composite	**0.80**	0.90	0.09	0.87	0.78	0.96
Lower San Antonio East	Top 25% Composite	**0.79**	0.94	0.63	0.53	0.68	0.82
Bancroft/ Havenscourt East	Top 25% Composite	**0.79**	0.84	0.32	0.49	0.90	0.96

Table EJ-2: Environmental Justice Communities Summary

Bunche/Oak Center	Top 25% Composite	**0.78**	0.83	0.74	0.77	0.79	0.37
Hoover/Foster	Top 25% Composite	**0.77**	0.56	0.95	0.70	0.51	0.78
Arroyo Viejo	Top 25% Composite	**0.76**	0.87	0.37	0.43	0.84	0.93
Acorn	Top 25% Composite	**0.75**	0.99	0.76	0.25	0.97	0.45
Prescott	SB 535 Disadvantaged Community	0.74	0.64	0.73	0.79	0.71	0.51
Cox/Elmhurst	Top 10% Category	0.71	**0.92**	0.29	0.39	0.82	0.88
Peralta/Hacienda	Top 10% Category	0.71	0.75	0.51	**0.91**	0.54	0.54
Jack London Gateway	Top 10% Category	0.70	**0.91**	0.79	0.20	0.83	0.53
Chinatown	Top 10% Category	0.69	0.72	0.94	0.10	**0.96**	0.52
Eastmont	Top 10% Category	0.68	0.73	0.03	0.80	0.78	**0.90**
Webster	Top 10% Category	0.67	0.89	0.22	0.44	**0.93**	0.72
Lower San Antonio West	SB 535 Disadvantaged Community	0.66	0.88	0.61	0.29	0.68	0.69
Port Upper	Top 10% Category	0.65	0.39	**0.99**	0.66	0.34	0.71
Chinatown/Laney	Top 10% Category	0.62	0.71	**0.96**	0.55	0.59	0.15
Oakland/Harrison West	Top 10% Category	0.60	0.42	0.81	**0.93**	0.47	0.30
Longfellow	SB 535 Disadvantaged Community	0.59	0.50	0.82	0.65	0.53	0.44
Bunche/MLK Jr	SB 535 Disadvantaged Community	0.52	0.66	0.84	0.15	0.46	0.49
Pill Hill	Top 10% Category	0.51	0.43	**0.91**	0.07	0.77	0.39
Eastlake Clinton West	SB 535 Disadvantaged Community	0.50	0.57	0.55	0.21	0.49	0.66
Uptown/ Downtown	SB 535 Disadvantaged Community	0.49	0.44	0.88	0.00	0.88	0.29
Gaskill	SB 535 Disadvantaged Community	0.47	0.49	0.68	0.63	0.55	0.05
Jack London Square	Top 10% Category	0.44	0.09	**1.00**	0.47	0.36	0.47
Downtown/Old Oakland	Top 10% Category	0.38	0.29	**0.92**	0.02	0.43	0.50

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 (Top 25%), (2) Top 10% Category (Category), and (3) SB 535 Disadvantaged Community (SB 535).

Figure EJ-7: Environmental Justice Communities



SOURCE: City of Oakland, 2021; ALAMEDA County GIS, 2021; Dyett & Bhatia, 2022

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