

## FACT SHEET: AIR QUALITY AND POLLUTION

### Basic Parameters and Objectives

In State law, environmental justice is defined as “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.”<sup>1</sup> In practice, this means that everyone has the right to live, work, play, and pray in healthy places free of pollution in the air, water, and land. It also means that the enduring impacts of environmental injustices that disproportionately burden low-income communities and people of color need to be recognized and addressed as an immediate priority in order to achieve equitable health outcomes.

In general plans, environmental justice elements need to include objectives, goals, and policies that seek to reduce pollution exposure and unique/compounded health risks as well as promote public facilities, access to healthy food, safe and sanitary homes, physical activity, and civic engagement. Most importantly, these efforts must prioritize the needs of the communities with the greatest disparities.

<sup>1</sup> [Cal. Gov. Code § 65040.12 \(e\)](#)

### Principles of Environmental Justice

Some excerpts from the Principles of Environmental Justice<sup>2</sup> related to the topic for this Focus Group Meeting:

*Environmental justice demands...*



The right to be free from ecological destruction.



The right to ethical, balanced, and responsible uses of land and renewable resources.



The right to universal protection from ... extraction, production, and disposal of toxic/hazardous wastes and poisons ... that threaten the fundamental right to clean air, land, water, and food.



Cessation of the production of all toxins [and] hazardous wastes ... [and that] all past and current producers be held strictly accountable to the people for detoxification and the containment at the point of production.



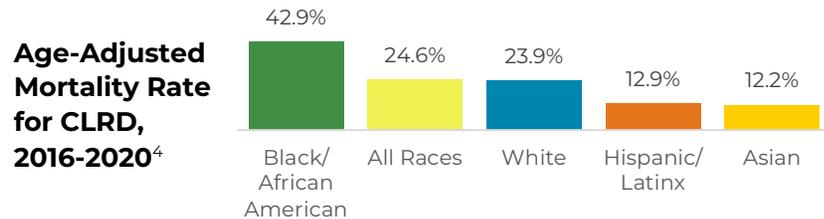
The right to a safe and healthy work environment.

<sup>2</sup> <https://www.ejnet.org/ei/principles.html>

## Air Quality and Pollution

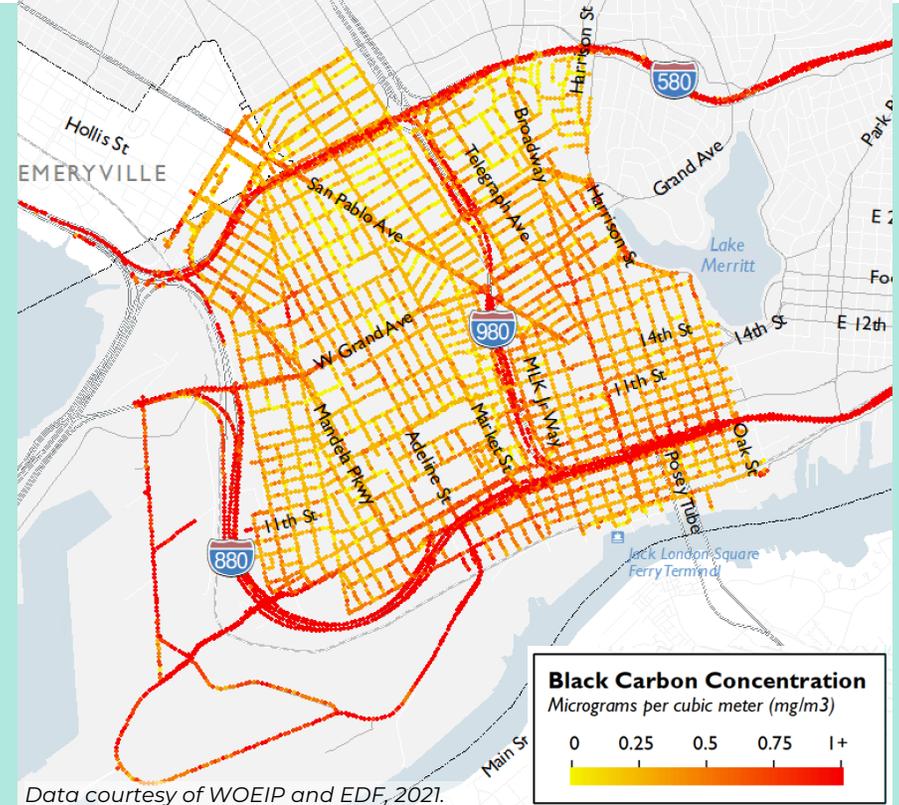
Air quality can be affected by contamination by particles such as dust, smoke, carbon monoxide, ozone, and nitrogen oxides – commonly emitted by sources including motor vehicles, industrial facilities, and fires. There are proven linkages between exposure to air pollution and respiratory health effects like asthma, lung cancer, and heart disease.<sup>3</sup> Between 2016-2020, about 560 deaths in Oakland were due to chronic lower respiratory diseases (CLRD), including chronic obstructive pulmonary disease, chronic bronchitis, emphysema, and asthma.<sup>4</sup>

Water quality and exposure to hazardous materials also contribute to health challenges. People can be exposed to contamination from pathogens or chemicals in the water that they drink, play or bathe in, or otherwise come in contact with, and these pollutants can cause waterborne diseases or other negative health issues like cardiovascular disease. Similarly, living or working near hazardous waste sites such as industrial facilities, municipal waste sites, or incinerators is associated with health concerns including adverse pregnancy outcomes, childhood cancer, and other diseases.<sup>5</sup>



<sup>3</sup> "Environmental Conditions." Healthy People 2030, U.S. Department of Health and Human Services, accessed September 27, 2022.

<sup>4</sup> Alameda County Public Health Department, 2021. .

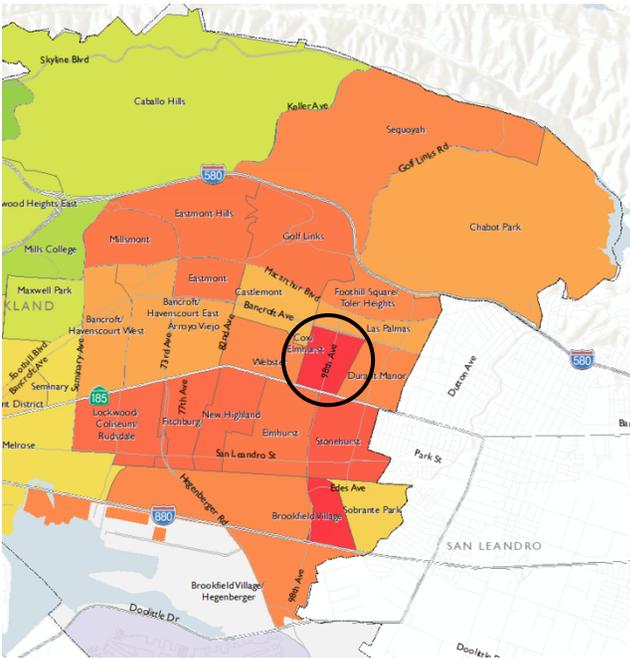


Air quality improvement efforts in West Oakland have been ongoing for over a decade, culminating in the AB 617 [West Oakland Community Action Plan](#) (WOCAP). Most recently, the West Oakland Environmental Indicators Project (WOEIP) and Environmental Defense Fund (EDF) studied the block-by-block variations in concentrations of air pollutants including nitrogen oxides and black carbon. These are highest in industrial areas adjacent to stretches of major roadways like I-980 and I-880.

*It is noted that the EJ Communities screening analysis uses citywide indicators, while the EJ Element includes various maps that may not cover the entire city but help identify unique issues/impacts in EJ communities and thereby further refine priorities for City actions.*

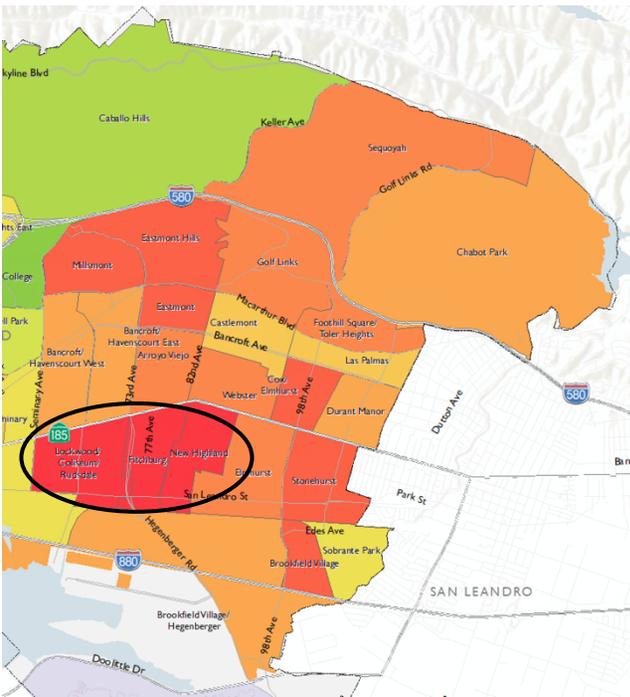
<sup>5</sup> Jean D. Brender, Juliana A. Maantay, and Jayajit Chakraborty, "Residential Proximity to Environmental Hazards and Adverse Health Outcomes." *American Journal of Public Health*, 101 (November 28, 2011): S37-S52.

## Health Inequities



### Asthma

Rate of **asthma** emergency department visits is highest in East Oakland, especially the **Cox/Elmhurst** tract. This neighborhood is primarily **Hispanic/Latinx** (66%) and **Black/African American** (25%).



### Cardiovascular Disease

Emergency department visits for **heart attacks** is greatest in the East Oakland industrial area, where the 3 tracts with the highest rates are primarily **Hispanic/Latinx** (47-66%).

## PRIMARY SOURCES OF POLLUTION IN OAKLAND



Industrial



Ships



Trucks



Trains



Cars

## ENVIRONMENTAL HAZARDS



Illegal Dumping



Pesticides



Lead

## RESPONSIBLE AGENCIES

### Air

- California Air Resources Board (CARB)
- Bay Area Air Quality Management District (BAAQMD)

### Water

- California Water Quality Monitoring Council
- State Water Resources Control Board (SWRCB) – San Francisco Bay (Region 2)

### Hazardous Materials/Toxics

- California Dept. of Toxic Substances Control (DTSC)
- Alameda County Dept. of Environmental Health

## RESOURCES

[Oak 311](#): 510-615-5566

[BAAQMD Odors & Complaints](#): 800-334-ODOR (6367)

DTSC Hazardous Waste Hotline: 800-698-6942

SWRCB (SF Bay Area) Spills & Complaints: 510-622-2369

[Alameda Co. Dept. of Environmental Health](#): 510-567-6700

[CalEPA Environmental Complaint System](#)

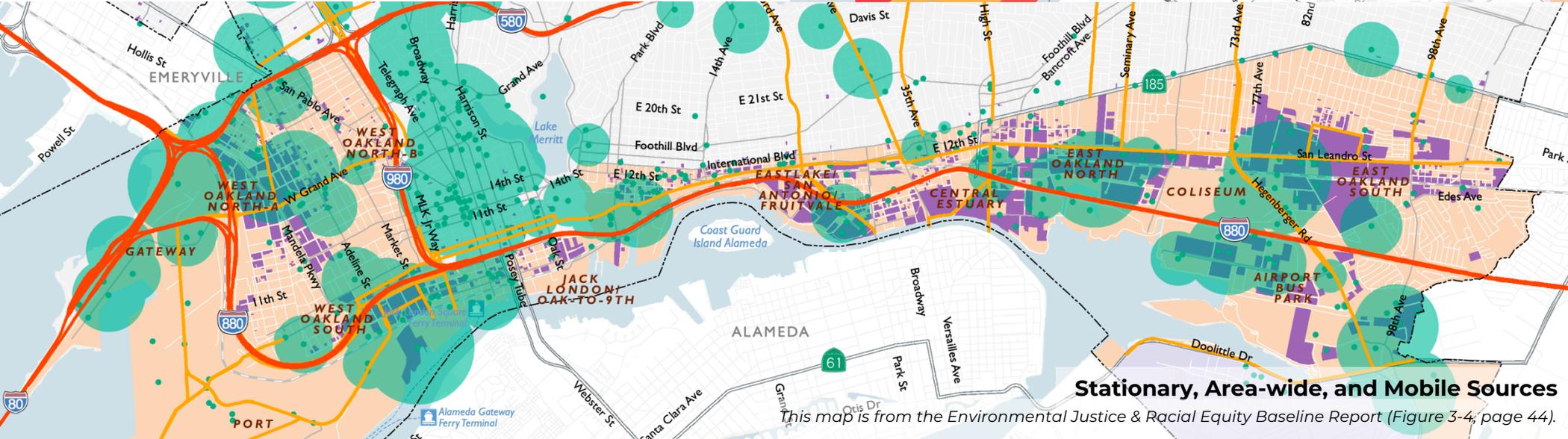
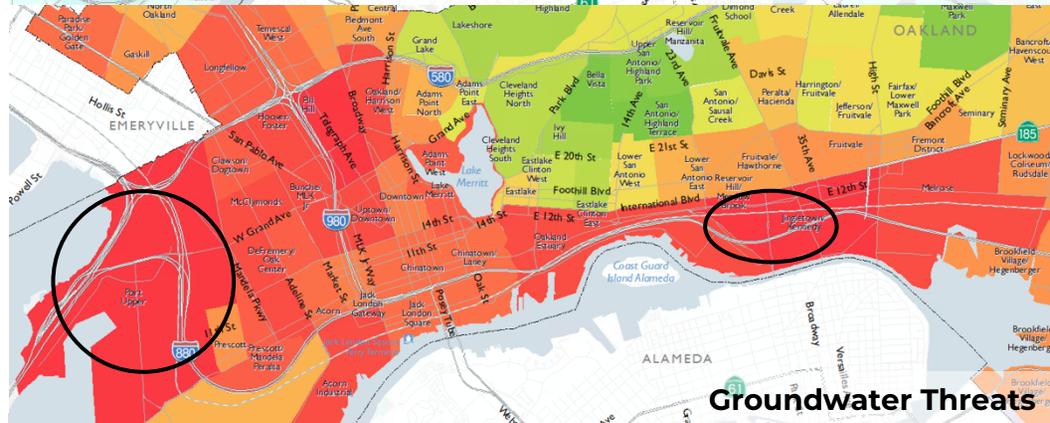
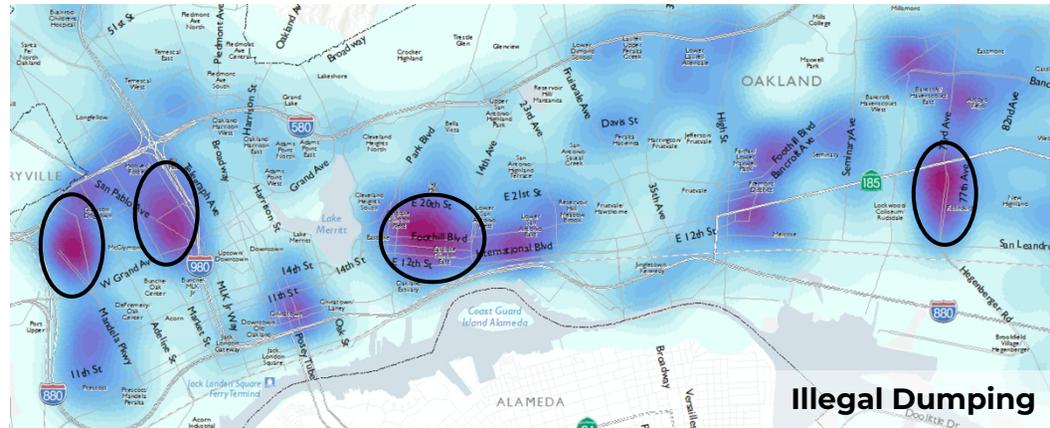
Air, Water, Toxic Substances, Pesticides, Solid Waste

Pollution sources and hazards that affect the air, water, and land in Oakland appear in repeating patterns – meaning that they have even greater combined impacts on the same communities.

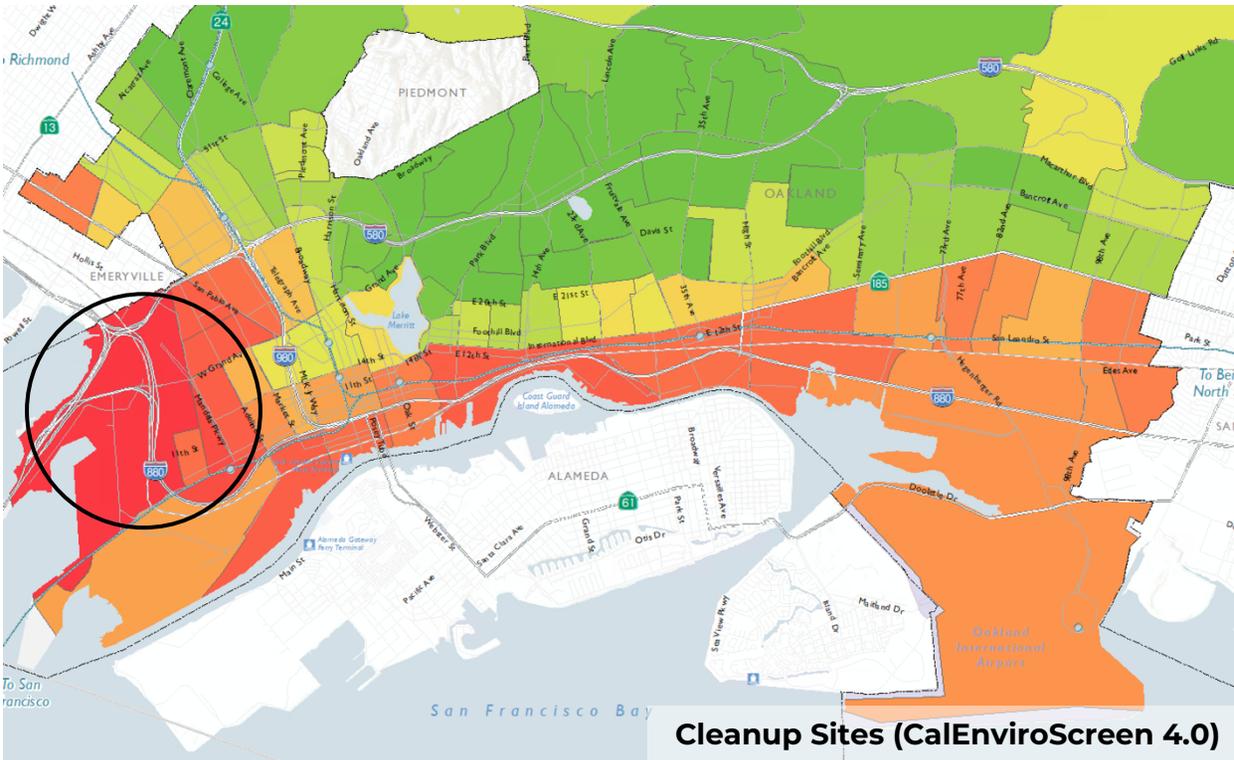
For example, OAK 311 service request calls for illegal dumping are most concentrated in neighborhoods like Hoover/Foster, Port Upper, Eastlake Clinton, Lockwood/Coliseum/Rudsdale, and Fitchburg. These same places are among the tracts most affected by groundwater threats.

Further, common sources of pollution—including industrial land uses (“area sources”), facilities permitted by BAAQMD (“point sources”), and major roadways (“mobile sources”)—intersect where many environmental justice issues are greatest.

Identifying both the sources and impacts of pollution and hazards are important to inform strategic policy development.

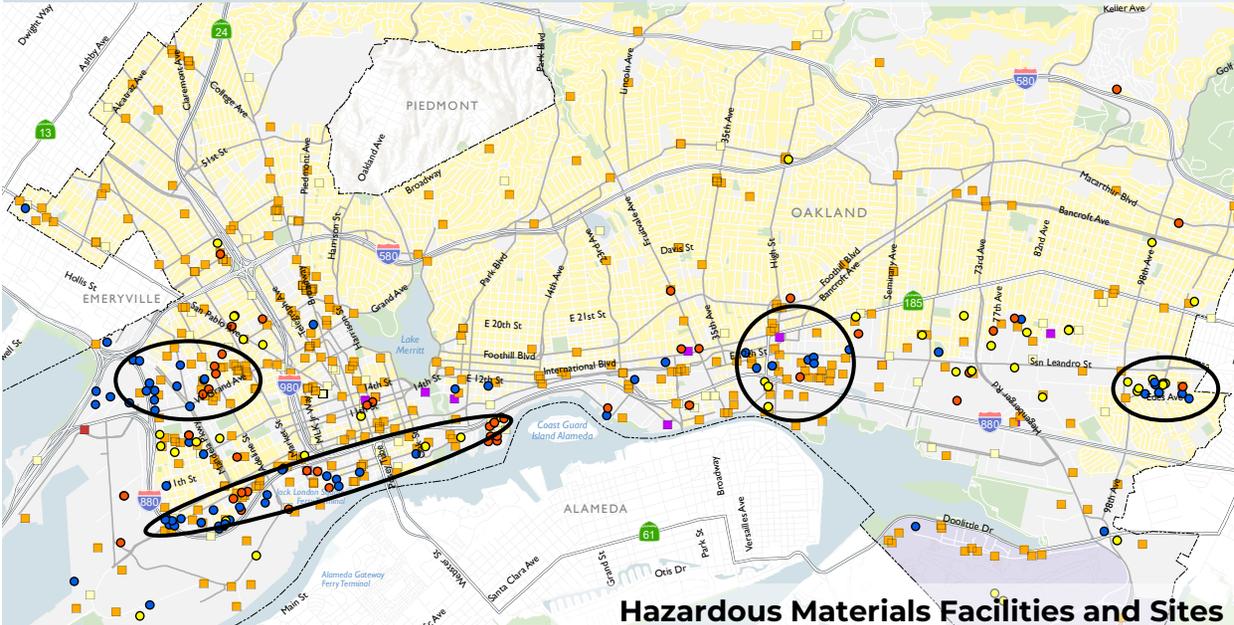


This map is from the Environmental Justice & Racial Equity Baseline Report (Figure 3-4, page 44).



### Cleanup Sites

The above left map shows how the Port Upper tract has the highest weighted sum of cleanup sites in CalEnviroScreen 4.0, meaning this area has the greatest magnitude of threat and burden posed by hazardous substances. Additionally, nearly all the tracts that are among the most burdened in Oakland are located **west of I-980** and **south of International Boulevard/SR-185**.



### Hazardous Materials

The below left map shows the locations of hazardous materials facilities and sites in Oakland. Areas with notable concentrations of these sites include the **port areas in West Oakland, Clawson/Dogtown, McClymonds, Acorn Industrial, Jack London Square, Jingtowntown/Kennedy, and Stonehurst**.

*This map is from the Environmental Justice & Racial Equity Baseline Report (Figure 3-12, page 60).*

## Air Quality and Pollution Issues and Draft Policy Ideas

This list of draft policy ideas was developed from existing community and neighborhood plans, as well as community outreach. Let us know whether the following tables accurately capture environmental justice issues in your community and whether the draft policy ideas do enough to address these issues by **checking the box in the column that is your answer**. Feel free to leave additional ideas/comments in the “Other/Comments?” column!

Sources referenced below:

- ECAP = [Oakland Equitable Climate Action Plan 2030](#)
- EONI = [East Oakland Neighborhoods Initiative Community Plan](#)
- HDG = [Oakland Healthy Development Guidelines](#)
- WOCAP = [West Oakland Community Action Plan](#)
- WOEIP = [West Oakland Environmental Indicators Project](#)

### AIR QUALITY

Disparity/Gap	Draft Policy Ideas	Idea Source	Captures/Addresses Issue?		Other/Comments
			Yes	No	
Inequitable exposure to land uses along I-980 and I-880 that generate and attract stationary and mobile sources of air pollution (PM <sub>2.5</sub> , PM <sub>10</sub> , NO <sub>x</sub> , diesel)	EV charging: <ul style="list-style-type: none"> <li>• require EV infrastructure as part of new warehouse/industrial buildings</li> <li>• install infrastructure (chargers/spaces) in key areas</li> </ul>	WOCAP, ECAP			
	Reduce Port emissions through: <ul style="list-style-type: none"> <li>• local ordinance amendments (such as weight limits for trucks on certain streets)</li> <li>• investment plan for Port infrastructure/operations upgrades</li> <li>• study truck flow/congestion</li> <li>• locations for off-terminal container yards</li> <li>• zero emission trucks</li> </ul>	WOCAP, ECAP			
	Support Community Air Monitoring Plans (AB 617): <ul style="list-style-type: none"> <li>• co-investments that leverage additional funding</li> <li>• use community-collected data</li> </ul>	WOCAP, ECAP, Pop-up outreach			

Disparity/Gap	Draft Policy Ideas	Idea Source	Captures/ Addresses Issue?		Other/Comments
			Yes	No	
	Targeted tree planting and urban greening	EONI, WOCAP, ECAP, HDG, Pop-up outreach, EJ Hub Survey			
	Participate in regional air quality planning efforts	Pop-up outreach			
	Support for green jobs development programs	EONI, WOCAP, Pop-up outreach			
	Reduce exposure to truck emissions: <ul style="list-style-type: none"> <li>• Truck rerouting</li> <li>• establishment of specific areas for truck parking</li> </ul>	WOCAP			
Health inequities stemming from location of housing and other sensitive uses adjacent to industrial activities in West and East Oakland	Require air filters of a certain MERV rating in new development; work with BAAQMD to create grant program for filter distribution to existing sensitive uses	WOCAP, Pop-up engagement, HDG, EJ Hub survey, West Oakland Toxics Tour			
	Buffering of existing industrial uses and new development near industrial uses: <ul style="list-style-type: none"> <li>• Land use buffers</li> <li>• Vegetative buffers, etc.</li> </ul>	WOCAP, EONI, West Oakland Toxics Tour			
	Land use and transportation strategies: <ul style="list-style-type: none"> <li>• revised zoning standards</li> <li>• revised conditional use permit criteria</li> <li>• avoid locating new facilities in overburdened areas</li> <li>• relocate existing facilities</li> </ul>	Existing Safety Element, WOCAP, EJ Focus Groups, West Oakland Toxics Tour, EONI			

## WATER QUALITY

Disparity/Gap	Draft Policy Ideas	Idea Source	Captures/Addresses Issue?		Other/Comments
			Yes	No	
Inequitable distribution of groundwater threats in West Oakland, Central Oakland, and East Oakland	Ensure buildings and sites have been investigated for hazardous materials or contamination and require remediation, or if there is evidence of potential negative health effects	Existing Safety Element, EJ Focus groups			
	Outreach, assistance, and incentives for residents and businesses on pollution prevention activities in areas with impaired surface or groundwater	Plans from other cities. Groundwater issue identified in EONI, EJ Focus Groups, Community Engagement, and WOEIP			
Impaired water bodies that affect all census tracts near the Estuary and Bay	Continue participation in regional Clean Water efforts	Existing City effort			
	Fund and implement green infrastructure program, targeting EJ communities and funding community-identified projects. Projects could include: <ul style="list-style-type: none"> <li>• vegetated buffers</li> <li>• trees and urban greening</li> <li>• Stormwater capture</li> </ul>	ECAP, Safety Focus Groups, EONI, Existing Green Infrastructure Plan			

## HAZARDOUS MATERIALS

Disparity/Gap	Draft Policy Ideas	Idea Source	Captures/Addresses Issue?		Other/Comments
			Yes	No	
Inequitable distribution of facilities that release toxic materials/handle hazardous waste in West and East Oakland	Review new projects to avoid location of facilities already overburdened by pollution.	EJ Focus Groups, EJ Hub Survey, Pop-Up Outreach			
	Land use and transportation strategies: <ul style="list-style-type: none"> <li>revised zoning standards</li> <li>revised conditional use permit criteria</li> <li>avoid locating new facilities in overburdened areas</li> <li>relocate existing facilities</li> </ul>	See "Air Quality" above			
Inequitable distribution of cleanup sites in West Oakland, East, Oakland, and Deep East Oakland	Ensure buildings and sites have been investigated for hazardous materials or contamination, and continue to require remediation techniques	Community-identified issue in EJ Focus Groups and Pop-Up outreach			
	Enhance City's capacity (through additional coordination, staffing, etc.) to respond to hazardous materials accidents	Existing Safety Element			
	Create database with detailed site information about brownfields and contaminated sites	Existing Safety Element, Pop-up outreach			
High incidence of illegal dumping near Acorn, upper West Oakland, East Oakland, and parts of Deep East Oakland	Proactive illegal dumping cleanup and targeting "hot spots" in EJ communities	Pop-up engagement, HDG			
	Enforce dumping as an illegal activity; assess enforcement efforts to ensure discriminatory patterns don't emerge	Neighborhood Council groups, EJ Hub			
	Expand community campaigns in EJ communities around illegal dumping and support youth leadership	Existing City effort			
	Create community reuse and repair program to promote upcycling (reuse of an item to create an item of greater value)	ECAP			

**Please share with us:** What's missing from the list of disparities or gaps we've identified or from the draft policy ideas?

Disparity/Gap/Issue	Policy Idea