



OWNING OUR AIR

The West Oakland Community Action Plan – A Summary

October 2019

A joint project of the Bay Area Air Quality Management District and the West Oakland Environmental Indicators Project



**BAY AREA AIR QUALITY
MANAGEMENT DISTRICT**



**West Oakland
Environmental
Indicators Project**
know which way the wind blows

WEST OAKLAND COMMUNITY ACTION STEERING COMMITTEE

Co-Leads

West Oakland Environmental Indicators Project
Bay Area Air Quality Management District



**West Oakland
Environmental
Indicators Project**
know which way the wind blows



**BAY AREA AIR QUALITY
MANAGEMENT DISTRICT**

Community Members

Bill Aboudi (AB Trucking), Bo Chung (Dellums Institute for Social Justice), Renata Foucre (West Oakland Neighbors), Barbara Johnson (West Oakland Neighbors), Steve Lowe (West Oakland Commerce Association), Karin Mac Donald (Prescott Oakland Point Neighborhood Association), Megan Prier (Urban Biofilters), Mercedes S. Rodriguez (BayPorte Village Neighborhood Watch), Carlos Zambrano (The Rose Foundation). New Voices Are Rising Youth: David Belle, Nariah Garcia, Shiloh Everette, Jessica Gloria, Justice Touré, Michelle Arango

Agency Members

California Air Resources Board
City of Oakland
Environmental Defense Fund
East Bay Municipal Utility District
Metropolitan Transportation Commission
Alameda County Public Health Department
U.S. Environmental Protection Agency
Port of Oakland Authority
Alameda County Transportation Commission

"THE WEST OAKLAND COMMUNITY ACTION PLAN IS A GAME CHANGER FOR ALL COMMUNITIES SIMILAR TO WEST OAKLAND IN CALIFORNIA. THIS IS A NEW DAY OF DECISION-MAKING AND PLANNING THAT GOES FAR BEYOND EMISSION REDUCTIONS. WE NO LONGER HAVE TO GO KNOCKING ON DOORS, ASKING FOR PARTICIPATION AND ENGAGEMENT FROM REGULATORY AGENCIES. ALSO, THE CALIFORNIA LEGISLATURE HAS SIGNED OFF TO MAKE IMPACTED AND VULNERABLE COMMUNITIES TO HAVE RESOURCES TO BECOME HEALTHIER."

**MS. MARGARET GORDON, CO-FOUNDER AND
CO-DIRECTOR OF THE WEST OAKLAND
ENVIRONMENTAL INDICATORS PROJECT**



OWNING OUR AIR

West Oakland residents have endured poor air quality and poor health for decades. Effective community organizing, combined with government regulations and other interventions, have improved conditions considerably, but disparities persist.

The highest levels of diesel particulate matter in the Bay Area are found in West Oakland. Neighborhoods near the Port of Oakland and busy Seventh Street experience nearly three times the cancer risk from local pollution sources, compared to neighborhoods farther away. Across West Oakland, people experience higher rates of asthma, cardiovascular disease, and premature death than other parts of Alameda County and the region.

Assembly Bill 617, passed in 2017, opened new opportunities to clean West Oakland's air. The bill directs air regulators to identify communities with high exposures to air pollution, like West Oakland, and to work with those communities to develop solutions. AB 617 empowers communities to make decisions about their air and health.

Partners in Planning

The West Oakland Environmental Indicators Project (WOEIP), led by co-founders Ms. Margaret Gordon and Mr. Brian Beveridge, has a long, successful track record of organizing community members to advocate for better air quality in West Oakland. WOEIP was uniquely positioned to engage quickly and effectively in this community air quality action planning effort, one that will likely serve as a model in future emission reduction plans throughout California. The Bay Area Air Quality Management District was fortunate to partner with WOEIP and the West Oakland Community Action Plan Steering Committee (Steering Committee) to develop the community-led and created ***Owning Our Air: The West Oakland Community Action Plan***.

ASSEMBLY BILL 617

Assembly Bill 617 (C. Garcia, Chapter 136, Statutes of 2017) may be one of the most impactful air quality regulations in the last 35 years. AB 617 requires local air districts to increase their focus on local air pollution in overburdened communities, in addition to the traditional regionwide attainment of state and federal pollution standards. Communities overburdened by air pollution are often the same communities that have been historically subject to discriminatory federal, state, and local policies (e.g. redlining, urban renewal, highway construction, and local zoning codes), disinvestment, limited access to health services, healthy food, quality education, and local parks and open spaces.

AB 617 was developed as a compromise with environmental justice groups opposed to the extension of the cap-and-trade program. Environmental justice advocates generally oppose cap-and-trade because it is perceived to be a program that allows large industries to continue polluting local neighborhoods.

AB 617 requires the California Air Resources Board, with input from community groups, air districts, and others, to select locations from around the state to prepare community-led plans to reduce emissions of toxic air contaminants and criteria pollutants. Communities can also be selected to conduct community-led monitoring. The primary requirement for community selection is a demonstrated high cumulative exposure burden. In the Bay Area, and around the state, these communities are often the same communities that are home to large industrial facilities covered under cap-and-trade. They are also mostly low-income and communities of color.



COMMUNITY SETS HIGH STANDARDS FOR AIR QUALITY AND HEALTH

The West Oakland community has set ambitious goals to protect their health. The community would like to see disparities in air pollution eliminated in West Oakland. Some neighborhoods in West Oakland experience almost three times the cancer risk of neighboring communities. By 2025, the community would like all neighborhoods in West Oakland to experience the entire area's average air quality; meaning no neighborhood experiences worse air quality than today's average for West Oakland. By 2030, the community would like all neighborhoods in West Oakland to have air that is as clean as today's least polluted West Oakland neighborhood. This means all neighborhoods would be as clean as the Hoover-Foster neighborhood.

Air Pollution in West Oakland

Owning Our Air focuses on a few specific air pollutants—those that contribute most to poor health outcomes. Pollutants studied include fine particulate matter (PM_{2.5}), diesel particulate matter (diesel PM), and other toxic air contaminants (TACs) from cars and trucks,

the Port of Oakland, rail, industry, businesses, and residences.

As part of a large metropolitan area, West Oakland will always experience some air pollution, as do other parts of the urbanized Bay Area. *Owning Our Air* focuses on reducing the extra burden West Oakland faces from local sources. Local sources contribute almost a third of the diesel PM emissions and cancer risk, and just under a quarter of the PM_{2.5} impacts. Currently, most local diesel PM and cancer risk come from heavy-duty diesel trucks, marine vessels, and rail. Over 90 percent of cancer risk from local air pollution comes from diesel PM—consistent with findings from previous studies. Local PM_{2.5} impacts come from large and small industries (or permitted facilities), road dust, and cars and trucks (including exhaust and brake and tire wear). The impacts of road dust on PM_{2.5} are due primarily to traffic on local streets, rather than highway traffic. However, more studies are needed to better understand the impact of road dust.

WEST OAKLAND SOURCES, TODAY

Cars & Trucks

Heavy-duty trucks and cars travel through West Oakland and on the surrounding roadways and freeways. Truck traffic is also generated by the many businesses, parking lots, port docking facilities, warehouses, cargo staging and handling areas, fuels sales, maintenance facilities, weigh stations, and food services in West Oakland.

About 42 percent of local diesel PM impacts and cancer risk come from heavy-duty trucks; about 38 percent of PM_{2.5} impacts come from road dust.

Port & Rail

Port equipment includes cargo equipment, port trucks, locomotives, ocean-going vessels, and harbor craft in the San Francisco Bay. Rail includes passenger rail and the Union Pacific railyard.

About 33 percent of diesel PM comes from ocean-going vessels associated with the Port, while 18 percent comes from rail.

Thirty percent of cancer risk from local sources comes from ocean-going vessels.

Industry

Large industries include East Bay Municipal Utility District wastewater treatment plant, recycling facilities such as Schnitzer Steel, CASS, and California Waste Solutions.

Small industries include gas stations, back-up diesel generators, auto-body shops, restaurants, and commercial cooking.

About 18 percent of local PM_{2.5} impacts come from West Oakland permitted sources.

Residential

Residential sources include backyard burning, fuel combustion (i.e. water heaters), refrigerators, indoor wood burning, and consumer products (i.e. hair sprays, cleaners, solvents).

A nominal amount of TACs and PM_{2.5} can be attributed to residential sources. However, the impact of resident choices can be substantial. Backyard burning can greatly affect the health of immediate neighbors.





Fine Particulate Matter

Particulate matter (PM) is a mixture of solid particles and liquid droplets suspended in the air. Of these particles, those less than 2.5 micrometers in diameter, called fine PM or PM_{2.5}, pose the greatest risk to health. Health impacts from PM_{2.5} include premature mortality, heart disease, and respiratory illnesses like asthma and bronchitis.



Diesel Particulate Matter

Diesel particulate matter is a form of PM that comes from the combustion of diesel fuel. Most diesel PM is in the PM_{2.5} size range and has the same health burdens associated with fine PM. Diesel PM has also been identified as a toxic air contaminant and is known to cause cancer.



Toxic Air Contaminants (TACs)

In addition to diesel PM, many other compounds emitted into the air have been identified as toxic. Compounds such as benzene, formaldehyde, acetaldehyde, hexavalent chromium, perchloroethylene, polycyclic aromatic hydrocarbons (PAHs), arsenic, and dioxins, are air pollutants known to cause cancer. TACs also have non-cancer health impacts, including eye irritation, respiratory diseases, and nervous system disorders.

WEST OAKLAND SOURCES, 2024

Cars & Trucks

Diesel PM from trucks will decline over the next 10 years; mostly due to fleet turnover and state laws requiring cleaner engines.

Road dust, due to increases in vehicle trips, will increase. Street sweeping could reduce road dust by 10 percent.



Port & Rail

Diesel PM from ocean-going vessels is expected to increase by 2024 due to growth in container shipping. New state regulations could result in more ships using electricity to power activities when at berth and therefore reduce the impact from diesel emissions.

Diesel PM and PM_{2.5} emissions will decline from rail due to use of newer, cleaner locomotive engines.



Industry

The Air District's Rule 11-18 will reduce toxic emissions from EBMUD and Schnitzer Steel. It is estimated that TACs may be reduced by 70 percent through the implementation of Rule 11-18.



Residential

Better enforcement, new regulations, and incentives could help discourage backyard burning and limit residential fuel combustion resulting in reduced emissions.



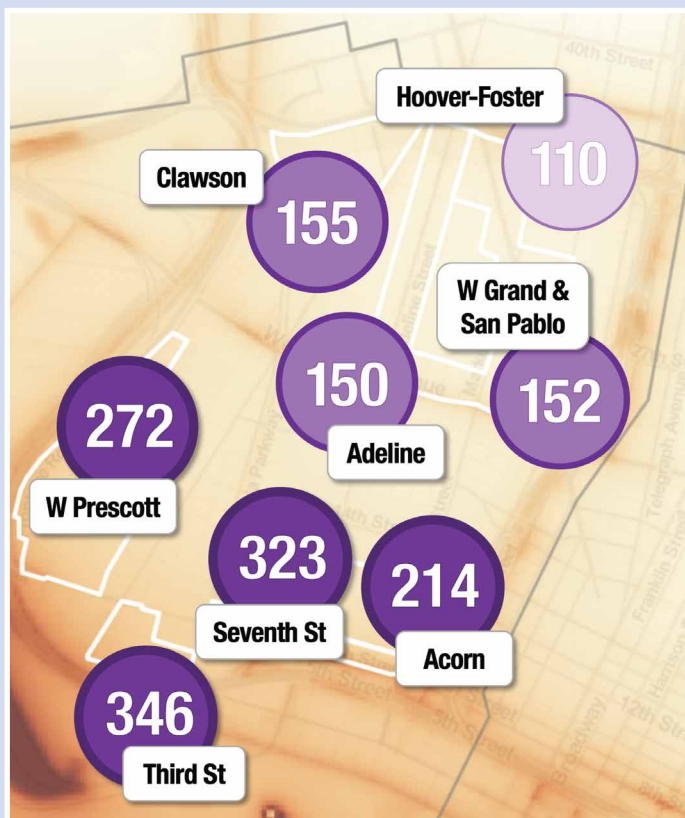
AIR POLLUTION BLOCK-BY-BLOCK

Many agencies and organizations have analyzed air pollution extensively in West Oakland. For more than twenty years, WOEIP has conducted local air pollution measurements, truck surveys, and other activities to better understand local pollution sources. In 2008, the California Air Resources Board and the Air District collaborated on an assessment of local health risk from diesel particulate matter. In 2009, WOEIP and the Air District collaborated on a truck traffic survey that revised some of the assumptions made in the health risk assessment about truck traffic in West Oakland. Through the Community Air Risk Evaluation Program (CARE), the Air District conducted additional air pollution modeling and measurement studies to better understand local sources and air pollution concentrations. More recently, WOEIP

partnered with the Environmental Defense Fund, Google, and Aclima to conduct detailed air pollution measurements in all West Oakland neighborhoods. To support **Owning Our Air**, the Air District developed additional detailed estimates of local pollution sources and local air pollution concentrations.

What we have learned is there are unequal air quality impacts within West Oakland. Some people are closer to sources of air pollution and breathe dirtier air. Neighborhoods closer to the Port of Oakland and busy Seventh Street experience much higher levels of pollution and cancer risk. **Owning Our Air** details these variations throughout West Oakland and aims to remedy them.

CANCER RISK VARIES BY NEIGHBORHOOD



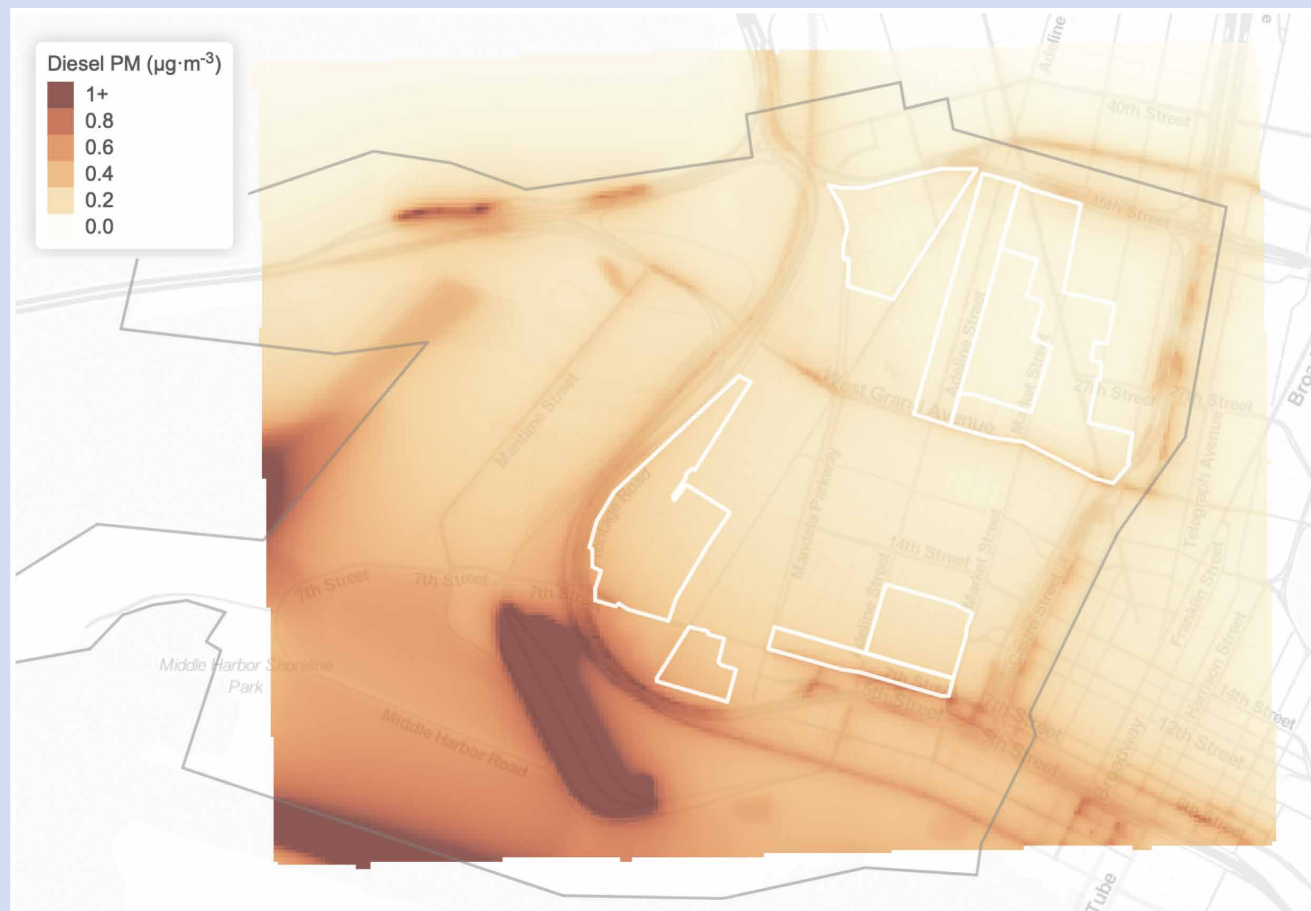
Note: Incidences per million

The numbers on the map represent the additional cancer risk people experience from local sources of air pollution, including diesel PM and TACs. Diesel PM is responsible for over 90 percent of cancer risk from air pollution in most neighborhoods in West Oakland.

Third Street, Seventh Street, and West Prescott neighborhoods experience the highest additional cancer risk from local sources of air pollution.



DIESEL PM VARIES BY NEIGHBORHOOD



The darker areas on the map show where the highest levels of diesel PM from local sources are in West Oakland. The largest dark area is the Third Street neighborhood. The white outlines represent neighborhood "impact zones." Impact zones were identified through WOEIP's partnership with the Environmental Defense Fund, Google, and Aclima that resulted in the collection of detailed air pollution measurements in all West Oakland neighborhoods to determine pollution levels.



KEY STRATEGIES



Move polluting businesses & activities away from residents

Relocate California Waste Solutions and CASS, Inc. to the former Oakland Army Base.

Use incentives and subsidies to relocate businesses that do not conform with zoning designations.

Relocate truck yards and truck routes away from residences.

Enforce ordinances that restrict truck idling, truck parking, and truck routes.

Prohibit new truck yards and truck service, repair, and fueling businesses in residential areas in West Oakland.



Move toward a zero-emission port

Transition to zero-emission drayage truck operations by 2035.

Amend statewide at-berth regulation requiring more ocean-going vessels to plug in.

Fund cleaner tugboat engines.



Fund clean trucks

Offer more incentives to replace diesel trucks with cleaner engines or zero emission engines.



Clean up industry

Increase frequency of compliance inspections.

Consult with the community to identify unpermitted sources of air pollution.

Enhance the Air District's enforcement referral process and update complaint policy.

Consider amending existing regulations on metal recycling and foundry operations.



Reduce car trips & road dust

Improve transit service.

Improve design and safety of local streets for pedestrian and bike trips.

Increase street sweeping along roads and highways to decrease exposure to road dust.



Stop backyard burning

Develop community education and outreach materials addressing the impacts of open burning and backyard wood fires.



GETTING TO CLEAN AIR AND BETTER HEALTH

Government agencies, especially the Air District and the City of Oakland, community members, business owners, the Port of Oakland, and other stakeholders need to commit resources and funding if people in West Oakland are to experience cleaner air and better health. During the past fifteen years, a variety of public agencies have adopted plans that directly or indirectly affect air quality and quality of life in West Oakland. **Owning Our Air** builds on these existing plans.

Owning Our Air includes over 90 strategies, many of which support and expand existing plan strategies. Other strategies are new approaches for reducing emissions and protecting people's health. All strategies are based on the community's local knowledge of West Oakland, the health issues confronting residents, air pollution monitoring data, and the Air District's modeling of pollution

concentrations and cancer risks. Moving pollution sources away from residents, adopting health-based land use policies, lowering emissions from the largest sources, increasing the use of clean trucks, and reducing exposure by filtering pollutants are some of the key strategies in **Owning Our Air**.

The California Air Resources Board (CARB) is responsible for many of the strategies in **Owning Our Air**. CARB is responsible for adopting measures to reduce emissions of toxic air contaminants from cars, trucks, ships, and other mobile equipment. Much of the progress in improving air quality in West Oakland is due to compliance with CARB's existing diesel particulate matter regulations and new engine standards. CARB is proposing a suite of amendments to existing regulations and adopting new programs to further reduce emissions of diesel particulate matter.



FOCUS ON HEALTH

The Alameda County Public Health Department is responsible for providing public health services. **Owning Our Air** identifies several health-based strategies to help the community access health services and provides information about health risks, treatment, and prevention, which will be implemented by the Alameda County Public Health Department.

Installation of high-efficiency filtration systems at schools, community centers, and retirement homes has been identified by the Steering Committee as means for reducing exposure to pollution. By 2021, the Air District will develop a funding program to assist with the installation of filtration systems. The Air District also recently approved funding for an initial effort to install filtration systems at schools located within West Oakland and other AB 617 communities. The lessons learned from this pilot effort will be used to expand installations to community centers, retirement homes, and other appropriate community facilities.

A complementary strategy by the City of Oakland will be the implementation of recent changes to the State of California's Building Energy Efficiency Standards. Beginning with building permit applications submitted on or after January 1, 2020, the air ventilation systems for residential buildings of four or more habitable floors will incorporate high-efficiency air filters to reduce exposure from outdoor air pollutants.

Key Strategies for Health

- **The Alameda County Public Health Department to expand its Asthma Management programs.**
- **The Alameda County Public Health Department to work with agency and local partners to investigate the use of green building approaches to housing construction and renovation to reduce emissions and exposure to air pollution, including weatherization, energy efficiency and renewable energy services.**
- **The Air District will develop policies and fund grants for building energy efficiency upgrades to reduce infiltration of pollutants and to install high-efficiency air filtration systems at schools, day care facilities, senior centers, health facilities, public facilities, apartments and homes in West Oakland.**
- **The City of Oakland to implement a project-wide smoking ban in Oakland at new developments.**
- **The City of Oakland to work with Alameda County Public Health Department to improve access to medical services within West Oakland.**
- **The City of Oakland to require newly constructed buildings of four or more habitable floors to include air filtration systems equal to or greater than MERV 13.**





GOAL

To protect and improve community health by eliminating disparities in exposure to local air pollution.

	BASELINE Baseline conditions in West Oakland in the year 2017.	2025 TARGET All neighborhoods experience West Oakland's <i>average</i> air quality.	2030 TARGET All neighborhoods experience West Oakland's <i>best</i> air quality.
Diesel PM	0.30 $\mu\text{g}/\text{m}^3$	< 0.25 $\mu\text{g}/\text{m}^3$	< 0.13 $\mu\text{g}/\text{m}^3$
PM_{2.5}	1.70 $\mu\text{g}/\text{m}^3$	< 1.70 $\mu\text{g}/\text{m}^3$	< 1.20 $\mu\text{g}/\text{m}^3$
Cancer Risk	204 in a million	< 200 in a million	< 110 in a million

West Oakland residents face higher rates of asthma, cardiovascular disease, premature death, and other poor health outcomes compared to other urban regions in the Bay Area.

Notes: $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter



A GREENER WEST OAKLAND

Even with limited data to quantify the precise value of trees in urban settings, we know that greenery adds to people's sense of well-being. Greenery also helps filter pollution out of the air. Urban greening is an important goal of the West Oakland community. The Steering Committee identified the following key greening strategies to plant vegetative borders as living filters between sources of particulate matter and residences, parks, schools, and community centers.



Urban Greening Strategies

- The West Oakland Environmental Indicators Project (WOEIP), with assistance from the Air District, to lead a community participatory design process for a biofilter system for the Prescott neighborhood.
- The City of Oakland to develop a comprehensive urban canopy and vegetation plan for West Oakland to identify where trees can be added, such as parks and along Caltrans' highway and freeway rights-of-way. This includes partnering with local nonprofit groups and encouraging trees on private property, and working with the community on tree maintenance and (as needed) removal.



*Oakland's namesake is the coast live oak tree (*Quercus agrifolia*). The Jack London Oak pictured above was planted in 1917 in front of Oakland's City Hall in Frank H. Ogawa Plaza.*



ENFORCEMENT

Enforcement of existing regulations and ordinances, including truck idling, parking, and routes, is critical for cleaner air in West Oakland. The Steering Committee wants to see enforcement of regulations, and better government response to backyard burning and odor nuisances in West Oakland.

The community felt so strongly about the importance of enforcement, that ***Owning Our Air*** includes measures that the City of Oakland committed to in its own West Oakland Truck Management Plan. The City of Oakland committed to improving training for police officers, community resource officers, and parking control technicians who issue truck and trailer parking tickets; changing truck parking regulations so they are easier to enforce; increasing truck parking fines; targeting enforcement at specific times and locations; and improving signage directing truck drivers to available truck parking.

The Air District also plays a role in enforcement. Through an agreement with the California Air

Resources Board (CARB), the Air District helps enforce truck idling regulations. The Air District is also responsible for enforcement of regulations at various businesses in and near West Oakland, such as Schnitzer Steel, Dynegy, Sierra Pacific, CASS, and East Bay Municipal Utility District. The Air District commits to updating the complaint processes and coordinating with other public agencies regarding odors and backyard burning. CARB is responsible for regulation enforcement, including enforcing truck idling, marine, locomotive, and off-road equipment regulations. Off-road equipment includes cargo-handling equipment at the Port of Oakland and at local warehouses, and construction equipment.

CARB also commits to enhancing enforcement activities within West Oakland by increasing the frequency of compliance inspections with guidance from the Steering Committee; coordinating inspections of stationary sources with Air District staff; providing an enforcement annual report to the community; updating enforcement strategies; and providing in-person community specific training.



TOWN HALL

To publicly introduce **Owning Our Air**, the Steering Committee hosted a Town Hall on August 17, 2019. Over 100 people attended, including West Oakland residents, community leaders, business owners, and locally-elected government officials. John Bauters, Air District Board Member and Emeryville Council Member; Ms. Margaret Gordon, WOEIP co-founder; Libby Schaaf, Mayor, City of Oakland; Honorable Nancy Skinner, California State Senator, District 9; and Honorable Rob Bonta, California Assembly Member, 18th Assembly District made opening comments. Four Steering Committee members representing BayPorte Village Neighborhood Watch, New Voices are Rising, Prescott Oakland Point Neighborhood, and AB Trucking provided their perspectives on **Owning Our Air**. Representatives from the Air District, CARB, Port of Oakland, and the City of Oakland spoke about their agency's commitment to improving air quality in West Oakland and their support for **Owning Our Air**.



*The Honorable Rob Bonta, Ms. Margaret Gordon, and the Honorable Nancy Skinner at the **Owning Our Air** Town Hall meeting.*

IMPLEMENTATION

Owning Our Air is a living document. Over the plan's five-year implementation timeline, the Steering Committee anticipates new science and understanding of air pollution's health effects. Better ways to control emissions and exposure to emissions, as well as changes in the economy, may require the Steering Committee and partner agencies to re-focus their efforts and priorities. The Steering Committee is ready to adapt to change.

Advocacy Required

Achieving clean air in West Oakland will require advocacy. Adopting **Owning Our Air** is only the first step. Both the Air District and WOEIP, as well as all members of the public and the Steering Committee, will need to advocate for the plan's implementation. The Steering Committee plans to meet regularly to review plans, evaluate programs and budgets, and make recommendations. Steering Committee members, community members, business owners, and other stakeholders will also need to communicate with the City of Oakland, the Port of Oakland, the California Air Resources Board, Caltrans, and other responsible agencies to ensure their continued efforts to implement the strategies identified in **Owning Our Air**.

Get Involved

Community members, business owners, and other stakeholders are needed to volunteer for the Steering Committee. Beginning in early 2020, the Steering Committee will meet quarterly to track progress and advocate for action on multiple strategies in **Owning Our Air**.

To stay informed about the plan and to see the full plan document, visit <http://www.baaqmd.gov/ab617woak> or email WestOaklandPlan@baaqmd.gov.

Plan Implementation

For more information about plan implementation and to volunteer for the West Oakland Community Action Plan Steering Committee, contact WOEIP at **510-257-5640** or info@WOEIP.org.





West Oakland graffiti art by Thomas Hawk



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